General Catalogue 2018

Explosion protection by WAROM

WAROM TECHNOLOGY INCORPORATED COMPANY


WAROM



Chairman: Mr. Hu Zhirong

Chairman's Address:

Providing quality explosion-proof products to customers, and spreading national spirit to the world. Leading to revitalize national explosion-proof industry, Warom Technology is marching forward to the great goal of creating a world brand.

We sincerely hope that friends from all walks of life support and pay close attention to Warom, move forward hand in hand, and create a brilliant and splendid future together.

Chairman:

WELCOME TO JOIN US !

1 General Contents

1 **General Information**
Introduction of Warom Technology Incorporated Company / Basics of Explosion Protection / Basics of Dustproof Waterproof/ Schematic Diagram of Field Installation / Technical Data of Lamp

2 **Lighting Technology**
Light Fittings for Fluorescent Lamp / LED Light Fittings / Pendant Light Fittings / Floodlights / Street lamps / Ballasts / Hand Lamps / Local, Caution Spotlight Fittings

3 **Installation Equipments**
Installation Switches/ Junction Boxes/ Terminal Boxes/ Plug and Sockets

4 **Control Equipments**
Position Switches / Control Stations and Components / Control Units / Control Buttons / Indicators / Control Switches / Ammeters and Voltmeters

5 **Loads and Motor Switchgears**
Motor Switches / Standard Motor Starters

6 **Distribution Boxes and Empty Enclosures**
Distribution Boxes / Components for Distribution Boxes / Explosion-proof Enclosures / Increased Safety Enclosures

7 **Cable Glands and Bushings**
Bushings / Connectors / Seal bushings / Cable Glands / Flexible Conduits / Accessories

8 **Air Conditioners and Pressurized Products**
Brief Introduction / Window Air Conditioners / Wall Air Conditioners / Tank Air Conditioners / Distribution Cabinets / Engineering Cabins

Contents

Introduction of Warom Technology Incorporated Company

Brief Introduction 1/1
Introduction of Explosion-proof Technology 1/3
Introduction of Explosion-proof Production 1/4
Introduction of Quality Control 1/5
Introduction of Sales 1/8

Basics of Explosion Protection

Explosion Protection 1/9
Classification of Zones 1/9
Temperature Classes 1/10
Explosion Groups 1/10
Types of Protection 1/11
Introduction of NEC Standards 1/14
Certification and Marking 1/15

Basics of Dustproof Waterproof 1/16

Schematic Diagram of Field Installation 1/17

Technical Data of Lamp 1/19

1

Brief Introduction



Company Brief

Warom Technology Incorporated Company is the leading enterprise of Chinese explosion-proof industry with a registered capital of 41.5 million USD, located in Jiading District of Shanghai, China. The company specializes in manufacturing explosion-proof lighting fixtures, and explosion-proof apparatus for industrial, mining, marine and offshore areas. In addition, the company produces special portable lighting, waterproof and dustproof light fittings and apparatus, elevators, and floor building material. Warom Technology is currently the executive member unit of China Electrical Apparatus Industrial Association, and the Vice President member Unit of China Explosion-Proof Electrical Apparatus Association. In addition, Warom Technology is the member unit of various professional organizations, including China Ship Association, China Quality Association, and Shanghai Chamber of Import and Export Trade.

Aiming to create a world brand, Warom Technology has organized a technical force with great strength; there are over 500 technical talents within the team. Warom Technology manufactures products that are representing the most advanced level in terms of quality and technical standards in China. The key technical indexes of explosion-proof performance, waterproof performance, and anti-corrosive performance of its exporting products are compliant to international requirements. The company has acquired intellectual property right of all its products, and has obtained Chinese and international patent certificates. And the Warom trademark has been registered in more than 30 countries and regions.

The industrial park established by Warom Technology in Shanghai is the largest explosion-proof apparatus production base in China, and it is also one of the top five largest explosion-proof mass production bases in the world. It facilitates with advanced equipments with the best build-in technical process; it has a well structured quality assurance system, and it is managed by international standards, quality guarantee system and international management system.

★ A 160,000 square meters modern manufacturing building with more than 2,500 staffs. Equipped with a series of high precision processing machineries, and achieved automatic and semi-automatic process for the key production techniques, including die-casting, machining, and painting.

★ An A grade laboratory accredited by national authority has been established, with a range of advanced inspection and testing equipments, including Spectrum Analyzer, X-Ray Perspective Instrument, 3D Projector, High and Low Temperature Environmental Simulator, and Salt Fog and Anti Corrosive Equipments.

“Let Warom’s Product Speak for itself!”



★ ISO9001 Quality Management System, ISO10012 Measurement Management System, ISO14001 Environmental Management System and OHSAS 18001 Occupational Health and Safety Management System certified; and the products have been obtained ATEX and IECEx certificates from internationally renowned laboratories such as PTB of Germany, LCIE of France, Nemko and DNV of Norway, Eurofins of Italy, and other certificates like UL and FM of USA, CU-TR of Russia, Belarus and Kazakhstan, PESO of India and INMETRO of Brazil etc..

Warom's products have been widely used in various industries including Oil and Gas, Chemical, Aerospace, Coal, Electric Power, Railway, Metallurgy, Marine, Security, Fire Protection, Irrigation, City Planning, Telecom and Diving Rescue. The products are sold to 31 provinces in China and to over 50 countries in the world. The Company has become a reliable supplier and cooperative partner to many renowned petrochemical companies. As one of the two explosion-proof equipment manufacturers in IECEx Mark Committees, Warom has gained strong brand recognition with various awards including “Famous-brand Product”, “Famous Trademark”, “AAA Credit Rating Company”, and “The Credible Enterprise” etc..

Warom is advancing toward the world! Warom is creating a world brand of explosion protection!



“Let Product Ensure User’s Safety!”

1

Explosion-proof Technology Introduction



Our Technology

Technology is the key of Warom's core competence, and it is also the driving force behind Warom's rapid development.
After over thirty years of effort, Warom has gained a great technological strength and led the industrial trend of Chinese explosion-proof electrical apparatus and currently the group is actively approaching international advanced technology.
At the present, the technological center of Warom Technology has more than 500 professional talents with specialty across different application science including Electric, Machinery, Automation, Chemical Corrosion, Information Technology, Communication, Mechanical Technics, Foundry, Measurement, and Illumination. Over the years, this team has demonstrated dynamic succession of technology and strong innovative capability.
The development of technology roots from specialization. Warom has seven specialized R&D departments concentrating in designing, researching and developing different product respectively. The seven R&D departments are Exporting Product Technical Department, Lighting Technical Department, Electrical Apparatus Technical Department, Mining Product Technical Department, Plastic Technical Department, Pipe Fittings Technical Department and Fan Technical Department. The Exporting Product Technical Department is operated directly by the International Division; and it develops industrial explosion-proof products that are compliant to IEC, EN, CU-TR, NEC505, NEC500 standards in accordance to the international market requirements. It adopts various softwares, including CAD Design Software, 3D Simulation Software and Illuminance Calculation Software to consummate the whole designing process and strive for the full satisfaction of customer requirements in product design. Every year, the Exporting Product Technical Department develops 20 new products and launches explosion-proof products that are meeting the needs of the international market; until now Warom Technology has completed the development and the certification works of over 100 series products for export and has issued International Explosion-Proof Product Catalogue of 2018 edition for the international market.



The technical department ensures the satisfaction of customer requirements of the design output through adopting CAD, Electric CAD and 3D Design Software, conducting Simulation of Electric Performance, and Controlling of Designing Process. The 3D Design Software simulates the field condition, and the 3D Illuminance Calculation Software calculates the light illuminance in any point of a 3D space for the actual application effect, so to ensure the on-site lighting requirement of user.

Introduction of Production

After over thirty years' development, the company has founded the explosion-proof manufacturing base on Jiading of Shanghai, China, with land coverage of 150,000 square meters and a building coverage of 160,000 square meters. It has over 2,500 staffs with an annual production capacity of 500 million USD. The explosion-proof equipment automatic factory began to establish on December of 2014, which can achieve the automation of processing, assembly, testing, packaged and delivery of products and increase our annual production capacity of 500 Million USD.

There are seven units within the production department, including Export Production Unit, Die-Cast Unit, Fabricating Unit, Electric Appliance Unit, Piping Unit, Fan Unit, and Plastic Unit, forming an all-in-one explosion-proof apparatus manufacturing system.

The Exporting Production Unit is focusing on producing explosion-proof products for exporting that are complied with IEC, EN, CU-TR, NEC505 and NEC500 standards. The unit is directly under the management of the Foreign Trade Division of the company and is operating within the Quality Management System of ISO9001 and ISO/IEC 80079-34:2011.

We firmly believe that the quality is controlled in the process, and we apply a variety of inspection equipments, inspection measures, and management modes to ensure the quality of our product through delicate elaboration.



◎ Dust Free Assembly Workshop



◎ Assembly line



◎ Automatic Spray Processing Conveyer



◎ Die-Cast Workshop



◎ Computer Numerical Control Processing Workshop



◎ Micro-computerised Automatic Die-casting Unit



◎ Automatic Laser Cutting Machines



◎ Five-axis Automatic Machining Center



◎ Automatic Machining Center



◎ Micro-computerised Automatic Drilling & Tapping Equipment



◎ Micro-computerised Automatic Threading Unit



◎ Micro-computerised Automatic Plane Milling Machine Unit



Introduction of Quality Control

Quality is the life of an enterprise; we follow strictly the stipulation of ISO9001:2008, ISO/IEC 80079-34:2011 Quality Management System: requirement for manufacturing, standard for inspection, record for processing, traceability for responsibility, correction for misplay, prevention to latent fault, continuing improvement.

The quality management is a direct responsibility of the General Manager; we have set up the quality inspection department, the inspection and testing center, the measurement center, and the quality management department internally, and we follow one authority principle, consistent responsibility and power principle, and non-vacancy & non-overlapping principle to ensure the authority and the uniqueness of quality control.

We are an organizational member of “China Product Quality Association”, our product has been awarded “National Product of Stable and Certified Quality” and our quality management organization has been awarded the title of “Advanced Quality Management Enterprise” and our Inspection and Testing Laboratory has been the first in the industry that evaluated by “China Petroleum and Chemical Industry Association” as an “A Grade Quality Inspection Organization of Petroleum and Chemical Enterprise”.

We are not only paying attention to the quality control during the manufacturing process, we pay more attention to the outgoing inspection before our products leave the factory. We make sure that each product must go through various inspection and testing items before it leaves the factory, and only those qualified after inspection and test are allowed to leave the factory.







◎ Electrical Laboratory

The electrical laboratory can perform various tests, including: Glow-Wire Test, Tracking Test, Needle Flame Test, Insulation Resistance Measurement, Voltage Withstand Test, Low Resistance Measurement, Contact Resistance Measurement, Earth Resistance Measurement, Lithium Battery Inner Resistance Measurement, and LED Luminous Flux Test and Measurement.



◎ Mechanical Testing Center

The mechanical testing center is equipped with Computerized Universal Hydraulic Testing Machine, Micro-processed Spring Dynamometer, and Impact Testing Equipment. Various tests and measurements can be performed in the center, such as Material Strength Measurement (yield strength, and tensile strength, etc.), Pulling Force Test, Tempered Glass Impact Test, Spring Force Measurement, Rubber Hardness Measurement, and Material Hardness Measurement.

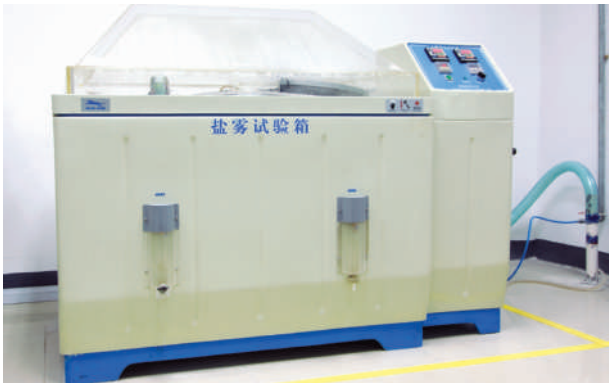


◎ Environmental Testing Center

Various Inspections and tests can be performed in the Environmental Test Center, such as Rubber Aging Test, Dust Protection Test, High & Low Temperature Test, Damp Heat Test, Low Temperature Environmental Simulation Test, High Temperature Environment Simulation Test, Anti-Corrosion Test, and Adhesive Force Test of Plastic Coating, etc..



◎ Temperature and Humidity Test Chamber



◎ Salt Fog Test Chamber

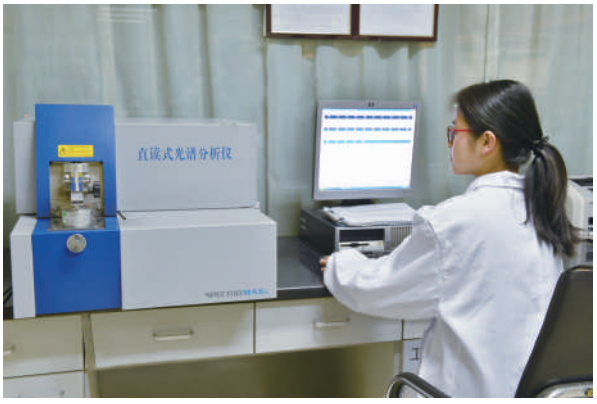


◎ Material Strength Measurement



◎ Lamp Photochromic Electric Test

1 Introduction of Quality Control



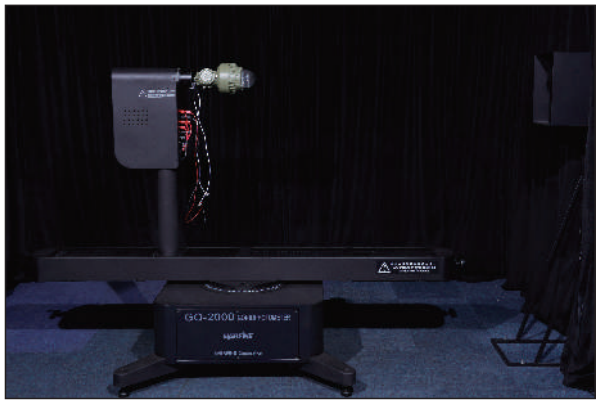
◎ Material Analysis Using Spectrometric Analyzer

Imported directly from Germany, the Full-Spectrum Spark Direct Reading Spectrometric Analyzer enables us to perform micro constituent analysis for the three basic materials of copper, aluminum, and steel, and the analysis of various constituent can be completed in mere 10 seconds.



◎ High Precision Image Measuring Instrument

High Precision Image Measuring Instrument utilizes the principle of microscope image projection, it can be used for two dimensional and three dimensional precision measure-ments and flameproof thread measurement. This instrument has self calibration module, and the measurement accuracy can be as high as 5 micron.



◎ Measurement of Luminous Intensity Distribution Curve

The Distribution Photometer is used for measuring the luminous intensity distribution curve of various lighting fixtures, it can satisfy the latest requirements of domestic and international standards; it can perform functional measurement for various luminous intensities, and it is suitable for luminous intensity test of different types of light source. This Distribution Photometer is controlled by computer with automatic focus adjustment, so the distribution curve can be finished in one run.



◎ Ingress Protection Test



◎ Ultrasonic Thickness Measurement
(measuring glass thickness, etc.)

Introduction of Sales

We are devoted to the market development. We have established a massive sales network in China, with over 200 local sales branch offices. Warom has gained strong brand recognition in China; from Aerospace Industry to Military Industry, Oil Exploitation in land and offshore, from Oil Refinery to Fine Chemical, from Heavy Industrial Smelt to shipbuilding, from Vintage and Winery to Pharmaceutical Manufacturing, Warom's products have been widely used in different industries. For the past 16 years till now, Warom has been the No.1 in terms of sales and production in the explosion-proof industry of China.

In 2002, Warom started its international endeavor by activating international market research, technological development, and quality positioning. Since then Warom has actively participated in various international professional exhibitions, such as Germany Hannover Messe, ADIPEC in United Arab Emirates, Indonesia Oil & Petrochemical Exhibition, ASEAN Oil & Chemical Exhibition, and Brazil International Oil & Gas Exhibition. In 2005, we have completed the design, production and quality control system for the exporting products; and our products have been exported to various countries and regions, including Germany, Italy, France, Poland, Russia, Kazakhstan, Iran, Oman, Saudi Arabia, Syria, Israel, Sudan, Egypt, South Africa, Pakistan, Vietnam, Thailand, Indonesia, Malaysia, Singapore, Brazil, Chile, and Columbia, etc..

We are currently increasing our effort in developing the international market, and have appointed distributors and agents in over 80 countries and regions, including Russia, Spain, Turkey, South Africa, Iran, Dubai, Vietnam, Thailand and Brazil, etc. Our next step in marketing is to establish more offices in the Middle East, Southeast Asia, EU, Africa and America, and we sincerely invite all interested parties to join us to create a new world brand.



◎ Warom's BAY51-Q36X2 series fluorescent lights that are applied to petrochemical enterprise SECCO (joint venture between SINOPEC & BP).



◎ Discussion with customers in ADIPEC 2010.



◎ Warom's BAD81, BSZD81 series lightings used for gas separation Plant & Ethane Separation Project (PPT)



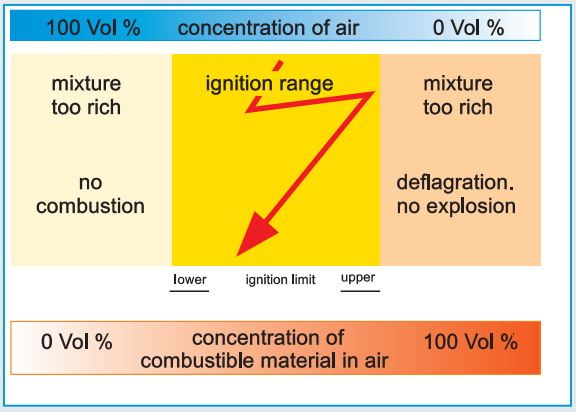
◎ Warom's HRD85 series lightings used in Thai Plastic and Chemicals Public Co., Ltd.(TPC).

Basics of Explosion Protection
Explosion Protection
Classification of Zones

Flammable gases, mists and dusts, together with oxygen, form explosive atmospheres. Ignition of such atmospheres may cause serious damage to personnel and equipments.

Explosion takes place in the condition of the following factors:
- flammable substances (gas, vapour, mist or dust) in a suitable distribution and concentration
- oxygen(from the air)
- ignition source

An explosive atmosphere occurs if the substance-air mixture lies within a certain concentration range, which is defined as Explosion Limits. Explosion limits depend on the ambient pressure and oxygen concentration of the air.



Explosion Protection

In order to avoid explosions and consequential dangers, the operator must incorporate effective explosion protection precautions into plant.

The principle of full explosion requires that explosion protection measures be taken in the following order.
- Measure to prevent formation of dangerous explosive atmospheres.
- Measure to prevent ignition of dangerous explosive atmospheres.
- Measure to restrict the effects of explosion to a safe level.

Distinguished as:
- Primary explosion protection:
  All measures to prevent the formation of explosive atmosphere
- Secondary explosion protection:
  All measures to restrict the effects of explosion to an insignificant level
- Explosion protection
  minimize explosion effects

Classification of Zones

Hazardous areas are classified into Zones, depending on the composition and presence of an explosive atmosphere. This enables both selection of suitable equipment and appropriate electrical installation.
Electrical apparatus for use in hazardous areas are assigned to various categories. The additional character G (gas) or D (dust) specifies whether the electrical apparatus may be installed in gas or dust hazardous areas.

Classification of Zones and use of equipment
Zone 0 Equipment with type test certificate
Zone 1 Equipment with type test certificate
Zone 2 Equipment complying with the basic requirements of Directive 2014/34/EU (Equipment certified for Zone 0 and 1 can also be used)

Zone in accordance with EC directive 1999/92/EC	Presence of potential explosive atmospheres	Safety level of equipment	Equipment category in accordance with EC directive 2014/34/EU
Zone 0 Zone 20	continuous or long-term or frequent	Very high level of protection	Category 1G Category 1D
Zone 1 Zone 21	occasional	high level of protection	Category 2G Category 2D
Zone 2 Zone 22	infrequent and short-term	normal level of protection General	Category 3G Category 3D

Temperature Classes

Ignition temperature is the lowest temperature of a surface at which an explosive atmosphere ignites on it. Flammable vapours and gases can be classified into temperature classes according to their ignition temperature.

The maximum surface temperature of a piece of equipment must always be lower than the ignition temperature of the gas-air mixture or vapour-air mixture in which it is placed.

Temperature Classes to IEC

Temperature class IEC/EN NEC 505-10	Maximum permissible surface temperature of the equipment (℃)	Ignition temperature of flammable substances (℃)	Temperature class NEC 500-3 CEC 18-052
T1	450	＞450	T1
T2	300	300＜t≤450	T2
	280	280＜t≤300	T2A
	260	260＜t≤280	T2B
	230	230＜t≤260	T2C
	215	215＜t≤230	T2D
T3	200	200＜t≤215	T3
	180	180＜t≤200	T3A
	165	165＜t≤180	T3B
	160	160＜t≤165	T3C
T4	135	135＜t≤160	T4
	120	120＜t≤135	T4A
T5	100	100＜t≤120	T5
T6	85	85＜t≤100	T6

Explosion Groups

Explosion protected electrical equipment is divided into 2 groups:
Group I Electrical equipment for mining
Group II Electrical equipment for all other hazardous areas

Electrical equipment of group II is further subdivided in groups IIA, IIB and IIC, depending on the danger level of the gas or vapour atmosphere in which they are operated. Equipment of group IIC is suitable for use in the most dangerous atmospheres.

Examples of the Classification of Gases and Vapours into Explosion Groups and Temperature Classes

	T1	T2	T3	T4	T5	T6
I	Methane					
IIA	Acetone Ethane Ethyl acetate Ammonia Benzene(pure) Acetic acid Carbon monoxide Methane Methanol Propane Toluene	Methyl alcohol i-amyl acetate n-butane n-butyl alcohol	Gasoline Diesel fuel aviation fuel Heating oils n-hexane	Acetaldehyde Ethyl ether		
IIB	Town gas (coal gas)	Ethylene				
IIC	Hydrogen	Acetylene			Carbon disulphide	

There is no classification of dust material into temperature classes or explosion groups. This means that the respective values are to be taken into account. The minimum ignition energy E_{min} (of a gas-air mixture) is the energy of an electrical spark that is capable of igniting the most critical (highest ignition performance) mixture under defined test conditions. Ignition temperature T_{ign} (of a gas-air mixture) is the lowest temperature of a hot wall surface at which the mixture is ignited after short-term contact. The glow temperature T_{glow} (of a dust layer) is the lowest temperature of a hot surface on which ignition occurs in a 5mm thick layer of dust.

The maximum surface temperature of the equipment must be compared with the ignition temperature, and the glow temperature should also be taken into account as safety factor:

- temperature limit regarding dust clouds:

$T_{max}=2/3\ T_{ign}$

- temperature limit regarding dust layers:

$T_{max} = T_{glow}$ -75k (5mm dust layer)

The lower of the two values above represents the maximum permissible surface temperature of the equipment

Protection Methods for Potentially Explosive Gas/Vapor Atmospheres

Type of protection	Code	Market	Application	Standard	Protection principle
General Requirements for Hazardous Locations	Ex Ex AEx Ex Ex	IEC China US US CA EU	EPL Ga, Gb,&Gc EPL Ga, Gb,&Gc Class I, Division I &2 Class I, Zone I &2 Class I, Zone I &2 Category 1G, 2G&3G	IEC 60079-0 GB 3836.1 FM 3600 ISA 60079-0 CSA C22.2 No.60079-0 EN 60079-0	
Incareased Safety	Ex e (or Ex eb) Ex e (or Ex eb) AEx e (or AEx eb) Ex e Ex e (or Ex eb)	IEC China US CA EU	EPL Gb EPL Gb Class I, Zone 1 Class I, Zone 1 Category 2G	IEC 60079-7 GB 3836.3 ISA 60079-7 CSA C22.2 No.60079-7 EN60079-7	No arcs sparks or hot surfaces
Non-Incendive	(NI) (NI)	US CA	Class I, Division 2 Class I, Division 2	ISA 12.12.01/FM 3611 CSA C22.2 No.213	
Non-Sparking	Ex nA (or Ex nAc) Ex nA (or Ex nAc) AEx nA (or AEx nAc) Ex nA Ex nA (or Ex nAc)	IEC China US CA EU	EPL Gc EPL Gc Class I, Zone 2 Class I, Zone 2 Category 3G	IEC 60079-15 GB 3836.8 ISA 60079-15 CSA C22.2 No.60079-15 EN 60079-15	
Explosion-proof	(XP) (XP)	US CA	Class I, Division 1 Class I, Division 1	UL 1203/FM 3615 CSA C22.2 No.30	Control the explosion and extinguish he flame
Flame-proof	Ex d (or Ex db) Ex d (or Ex db) AEx d (or AEx db) Ex d Ex d (or Ex db)	IEC China US CA EU	EPL Gb EPL Gb Class I, Zone 1 Class I, Zone 1 Category 2G	IEC 60079-1 GB 3836.2 ISA 60079-1 CSA C22.2 No.60079-1 EN 60079-1	
Enclosed Break	Ex nC (or Ex nCc) Ex nC (or Ex nCc) AEx nC (or AEx nCc) Ex nC Ex nC (or Ex nCc)	IEC China US CA EU	EPL Gc EPL Gc Class I, Zone 2 Class I, Zone 2 Category 3G	IEC 60079-15 GB 3836.8 ISA 60079-15 CSA C22.2 No.60079-15 EN 60079-15	
Intrinsic Safety	Ex ia, ib, ic Ex ia, ib, ic (IS) (IS) AEx ia AEx ib Ex ia Ex ib Ex ia,ib,ic AEx ic Ex ic	IEC China US CA US US CA CA EU US CA	EPL Ga, Gb, Gc EPL Ga, Gb, Gc Class I, Division 1 Class I, Division 1 Class I, Zone 0 Class I, Zone 1 Class I, Zone 0 Class I, Zone 1 Category 1G, 2G, 2G Class I, Zone 2 Class I, Zone 2	IEC 60079-11 GB 3836.4 UL 913/FM 3610 CSA C22.2 No.157 ISA 60079-11/FM 3610 ISA 60079-11/FM 3610 CSA C22.2 No.60079-11 CSA C22.2 No.60079-11 EN 60079-11 ISA 60079-11/FM 3610 CSA C22.2 No 60079-11	Limit energy of sparks and surface temperature

Protection Methods for Potentially Explosive Gas/Vapor Atmospheres

Type of protection	Code	Market	Application	Standard	Protection principle
Pressurization	Type X,Y	US	Class I, Division 1	FM 3620 (NFPA 496)	Keep flammable gas out
	Type X,Y	CA	Class I, Division 1	NFPA 496	
	Type Z	US	Class I, Division 2	FM 3620 (NFPA 496)	
	Type Z	CA	Class I, Division 2	NFPA 496	
	Ex px(or Ex pxb)	IEC	EPL Gb	IEC 60079-2	
	Ex px(or Ex pxb)	China	EPL Gb	GB 3836.5	
	AEx px(or AEx pxb)	US	Class I, Zone 1	ISA 60079-2	
	Ex px	CA	Class I, Zone 1	CSA C22.2 No.60079-2	
	Ex px (or Ex pxb)	EU	Category 2G	EN 60079-2	
	Ex py (or Ex pxb)	IEC	EPL Gb	IEC 60079-2	
	Ex py (or Ex pxb)	China	EPL Gb	GB 3836.5	
	AEx py(or AEx pxb)	US	Class I, Zone 1	ISA 60079-2	
	Ex py	CA	Class I, Zone 1	CSA C22.2 No.60079-2	
	Ex py (or Ex pyb)	EU	Category 2G	EN 60079-2	
	Ex pz (or Ex pzb)	IEC	EPL Gc	IEC 60079-2	
	Ex pz (or Ex pzb)	China	EPL Gc	GB 3836.5	
	AEx pz (or AEx pzb)	US	Class I, Zone 2	ISA 60079-2	
	Ex pz (or Ex pzb)	CA	Class I, Zone 2	CAS C22.2 No.60079-2	
	Ex pz (or Ex pzb)	EU	Category 3G	EN 60079-2	
Restrictes Breathing	Ex nR (or Ex nRc)	IEC	EPL Gc	IEC 60079-15	
	Ex nR (or Ex nRc)	China	EPL Gc	GB 3836.8	
	AEx nR(or AEx nRc)	US	Class I, Zone 2	ISA 60079-15	
	Ex nR	CA	Class I, Zone 2	CSA C22.2 No.60079-15	
	Ex nR (or Ex nRc)	EU	Category 3G	EN60079-15	
Encapsulation	Ex ma, mb, mc	IEC	EPL Ga, Gb, Gc	IEC 60079-18	
	Ex ma, mb, mc	China	EPL Ga, Gb, Gc	GB 3836.9	
	Ex ma, mb, mc	EU	Category 1G, 2G, 3G	EN 60079-18	
	AEx ma	US	Class I, Zone 0	ISA 60079-18	
	Ex ma	CA	Class I, Zone 0	CSA C22.2 No.60079-18	
	Aex mb	US	Class I, Zone 1	ISA 60079-18	
	Ex mb	CA	Class I, Zone 1	CSA C22.2 No.60079-18	
	AEx mc	US	Class I, Zone 2	ISA 60079-18	
	Ex mc	CA	Class I, Zone 2	CSA C22.2 No.60079-18	
Oil Immersion	Ex o (or Ex ob)	IEC	EPL Gb	IEC 60079-6	
	Ex o (or Ex ob)	China	EPL Gb	GB 3836.6	
	AEx o (or AEx b)	US	Class I, Zone 1	ISA 60079-6	
	Ex o	CA	Class I, Zone 1	CSA C22.2 No.60079-6	
	Ex o (or Ex ob)	EU	Category 2G	EN60079-6	
Powder-Filling	Ex q (or Ex qb)	IEC	EPL Gb	IEC 60079-5	
	Ex q (or Ex qb)	China	EPL Gb	GB 3836.7	
	AEx q (or AEx qb)	US	Class I, Zone 1	ISA 60079-5	
	Ex q	CA	Class I, Zone 1	CSA C22.2 No.60079-5	
	Ex q (or Ex qb)	EU	Category 2G	EN 60079-5	

Protection methods for combustble/ignitable dust atmospheres(including fiber and flyings)

Type of protection	Code	Market	Application	Standard	Protection principle
General Requirements	Ex	IEC	EPL Da, Db, &DC	IEC 60079-0	
	Ex	China	EPL Da, Db, &DC	GB 12476.1	
		US	Class II, Division 1&2	FM 3600	
		US	Class III, Division 1&2	FM 3600	
	AEx	US	Zone 20, 21, &22	ISA 61241-0	
	Ex	EU	Category 1D, 2D&3D	EN 60079-0	
	Ex	CA	Class II/ III	CSA C22.2 No.60079-0	
Dust-Ignitionproof	(DIP)	US	Class II, Division 1	UL 1203/FM 3616	Keep combustinle dust out
		CA	Class II, Division 1	CSA C22.2 No.25	
Dust-Protected	(NI)	US	Class II, Division 2	ISA 12.12.01/FM 3611	
		CA	Class II, Division 2	CSA C22.2 No.25	
Protection by Enclosure	Ex ta, tb, tc	IEC	EPL Da, Db, Dc	IEC 60079-31	
	Ex tD	China	EPL tD	GB 12476.5	
	Ex ta, tb, tc	EU	Category 1D, 2D, 3D	EN 60079-31	
	AEx ta	US	Zone 20	ISA 60079-31	
	AEx tb	US	Zone 21	ISA 60079-31	
	Ex ta, tb, tc	US	Zone 22	ISA 60079-31	
		CA	Class II/III, Division 1	CSA C22.2 No.60079-31	
Fiber & Fiying Protection	(DIP)	US	Class III, Division 1&2	ISA 12.12.01/FM 3611	
		CA	Class III, Division 1&2	CSA C22.1	
Encapsulation	Ex maD, mbD, mcD	IEC	EPL Da, Db, Dc	IEC 61241-18	
	Ex maD, mbD, mcD	China	EPL Da, Db, Dc	GB 12476.6	
	AEx ma	US	Zone 20	ISA 60079-18	
	Ex ma	CA	Class II/III, Division 1	CSA C22.2 No.60079-18	
	Ex ma, mb, mc	EU	Category 1D, 2D, 3D	EN 60079-18	
	AEx mb	US	Zone 21	ISA 60079-18	
	Ex mb	CA	Class II/III, Division 1	CSA C22.2 No.60079-18	
	AEx mc	US	Zone 22	ISA 60079-18	
	Ex mc	CA	Class II/III, Division 2	CSA C22.2 No.60079-18	
Pressurization	Ex pD	IEC	EPL Db	IEC 61241-4	Limit energy of sparks and surface temperature
	Ex pD	China	EPL Db	GB 12476.7	
	AEx pD	US	Zone 21	ISA 61241-2	
	Ex pD	EU	Category 2D	EN 61241-4	
	(px)	US	Class II, Division 1	FM 3620 (NFPA 496)	
	(px)	CA	Class II, Division 1	NFPA 496	
	(px)	US	Class II, Division 1	FM 3620 (NFPA 496)	
	(px)	CA	Class II, Division 1	NFPA 496	
	(px)	US	Class II, Division 2	FM 3620 (NFPA 496)	
	(px)	CA	Class II, Division 2	NFPA 496	
Intrinsic Satety	Ex iaD, ibD, icD	IEC	EPL Da, Db, Dc	IEC 61241-11	
	Ex iaD, ibD, icD	China	EPL Da, Db, Dc	GB 12476.4	
	AEx ia	US	Zone 20	ISA60079-11	
	Ex ia	CA	Class II/III, Division 1	CSA C22.2 No.60079-11	
	Ex ia, ib, ic	EU	Category 1D, 2D, 3D	EN 60079-11	
	AEx ib	US	Zone 21	ISA 60079-11	
	Ex ib	CA	Class II/III, Division 2	CSA C22.22 No.60079-11	
	AEx ic	US	Zone 2	ISA 60079-11	
	Ex ic	CA	Class II/III, Division 2	CSA C22.2 No.60079-11	
	(IS)	US	Class II, Division 1	UL 913/FM 3610	
	(IS)	CA	Class II, Division 1	CSA C22.2 No.157	
	(IS)	US	Class II, Division 1	FM3610	
	(IS)	CA	Class II, Division 1	CSA C22.2 No.157	

Introduction of NEC Standards

NEC505

Class I Zone 1 A Ex db IIC T5 Gb

- Permitted Class
- Permitted Zone
- American Standard
- American National Standards Institute (ANSI)
- Explosion Protection
- Method of Protection
- Gas Group
- Temperature Class
- EPL

NEC500

Class I Division 1 Groups A B C D T5

- Permitted Class
- Permitted Division
- Gas Group
- Temperature Class

Area Classification

	Flammable Material Present Continuously	Flammable Material Present Intermittently	Flammable Material Present Abnormally
IEC/EU	Zone 0	Zone 1	Zone 2
US NEC 505	Zone 0	Zone 1	Zone 2
US NEC 500	Division 1		Division 2

Gas Groupings

Gas, dust or Flber	IEC / Europe Canada (CEC)	USA NEC (505)	Canada (CEC) USA NEC (500)
Acetylene	Group IIC	Class I, Group IIC	Class I, Group A
Hydrogen			Class I, Group B
Ethylene	Group IIB	Class I, Group IIB	Class I, Group C
Propane	Group IIA	Class I, Group IIA	Class I, Group D
Methane	Group I	Class I, Group IIA	Class I, Group D
Metal Dust	Group IIIC		Class II, Group E (Div 1 only)
Coal Dust	Group IIIB		Class II, Group F
Grain	Group IIIB		Class II, Group G
Fibres	Group IIIA		Class II, Group H

Hazardous (classified) Locations

Class I locations are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Zone 0

These are locations in which ignitable concentrations of flammable gases or vapors are present continuously or for long periods of time.

Zone 0 represents the most dangerous part of the Division 1 classification.

Zone 1

These locations are almost the same as Class I, Division 1 locations in the class, division system except they do not include those locations defined as Class I, Zone 0, where ignitable concentrations are present all or most of the time.

Zone 2

These locations are the same as Class I, Division 2 locations in the class, division system.

Gas group IIA IIB IIC

Hazardous (classified) Locations

Class I

Class I locations are those in which flammable gases or vapors are or may be present in the air in quantities sufficient to produce explosive or ignitable mixtures.

Class II

Class II locations are those that are hazardous because of the presence of combustible dust Note that the dust must be present in sufficient quantities for a fire or explosion hazard to exist

Class III

Class III locations are those that are hazardous because of the presence of easily ignitable fibers or flyings but in which the fibers or flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures. Easily ignitable fibers and flyings present a fire but not an explosion hazard

Class I, Division 1

Class I, Division 1 locations are those where the explosion hazard exists under normal operating conditions. The area may be hazardous all or most of the time or it may only be hazardous some of the time.

Class I, Division 2

Class I, Division 2 locations are those where ignitable concentrations of flammable gases or vapors are not normally present, but could be present in the event of a fault, such as a leak at a valve in a pipeline carrying flammable liquids.

Gas group Groups A B C D

Certification and Marking

Only appropriately certified and marked units may be used in hazardous areas.

EU-Directive	2014/34/EU	
Validity	From 01.03.1996	
Range of validity for equipment in hazardous areas	• all equipment and protection systems • gases, vapours and dusts • including mining	
QM system of manufacturer	• QM certificate of a notified body	
Certificate of conformity	Manufacturers' s declaration of conformity on the basis of the type examination	

Marking laid down by the directives and the standards

Name or marking of the manufacturer	WAROM	
Type marking (e.g.)	BXM(D)81	
Address	No.555 Baoqian Road, Jiading, Shanghai, China	
Marking of explosion protection	Ex db IIB+H_2 T6 Gb	
	Ex tb IIIC T80℃ Db IP66	
	Ex	CENELEC marking
	d, e, ib, [ib], tb…[1])	Protection types
	IIB+H_2	Explosion groups (for gases)
	IIIC	Explosion groups(for dust)
	T6, T80℃	Temperature class
	Gb, Db	Protection degree
Distinguishing symbol of the EC with indication of the category	Ⓔx II 2 G D	
	Ⓔx	Mark according to EC Directive
	II	Group of equipment
	2	Category of equipment
	G, D	G: gases, vapours or mists; D: dusts
Test station, No. of certificate	LCIE 11 ATEX 3064 X	
CE-Mark, No. of testing authority	0102	
Electrical data	V, A, W, Hz	
Ambient temperature, if other than -20℃…+40℃	-60℃≤ Ta ≤+55℃	
Degree of protection	IP66	

1) ib for intrinsically safe apparatus, [ib] for associated apparatus
2) with…X if special conditions are indicated for use, etc.
with…U for Ex-components

Ingress Protection(IP)Codes

The first figure-Protection against solid bodies	
0	Non-protection
1 Φ50mm	Prevent the solid strange particles, of which size is more than 50mm.
2 Φ12.5mm	Prevent the solid strange particles, of which size is more than 12mm.
3 Φ2.5mm	Prevent the solid strange particles, of which size is more than 2.5mm.
4 Φ1mm	Prevent the solid strange particles, of which size is more than 1mm.
5	Dustproof
6	Dust-sealed

The second figure-Protection against water	
0	Brief statement
1	Non-protection Drop-proof
2	15° Drop-proof
3	Showering waterproof
4	Splashing waterproof
5	Spraying waterproof
6	Wave-proof
7	Effect of soaking in water proof
8	Effect of diving-proof

* The waterproof dustproof in accordance with the above schematic diagram.

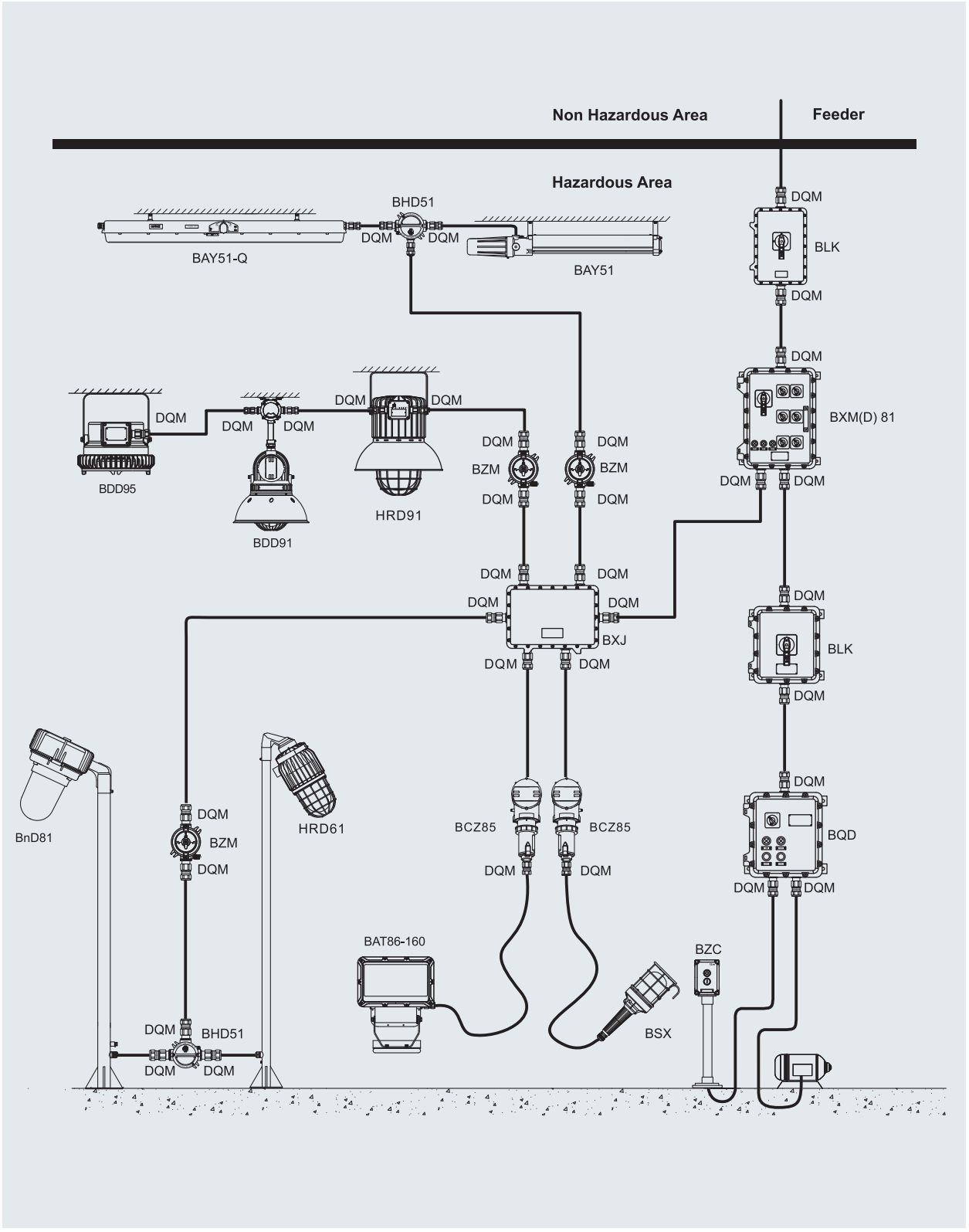
NEMA/CSA/UL Enclosure Types

Type	Application	Abbreviated Definition
1	Indoor	General Purpose
2	Indoor	Protection against angled dripping water
3, 3R, 3S	Indoor/Outdoor	Protection against rain,snow
4,4X	Indoor/Outdoor	Protection against rain, snow, hose directed water
5	Indoor	Protection against angled dripping water,dus,fibers,flyings
6	Indoor/Outdoor	Protection against temporary submersion
6P	Indoor/Outdoor	Protection against prolonged submersion
12, 12K	Indoor	Protection against circulating dust, fibers, flyings
13	Indoor/Outdoor	Protection against circulating dust, fibers, flyings, seepage

1

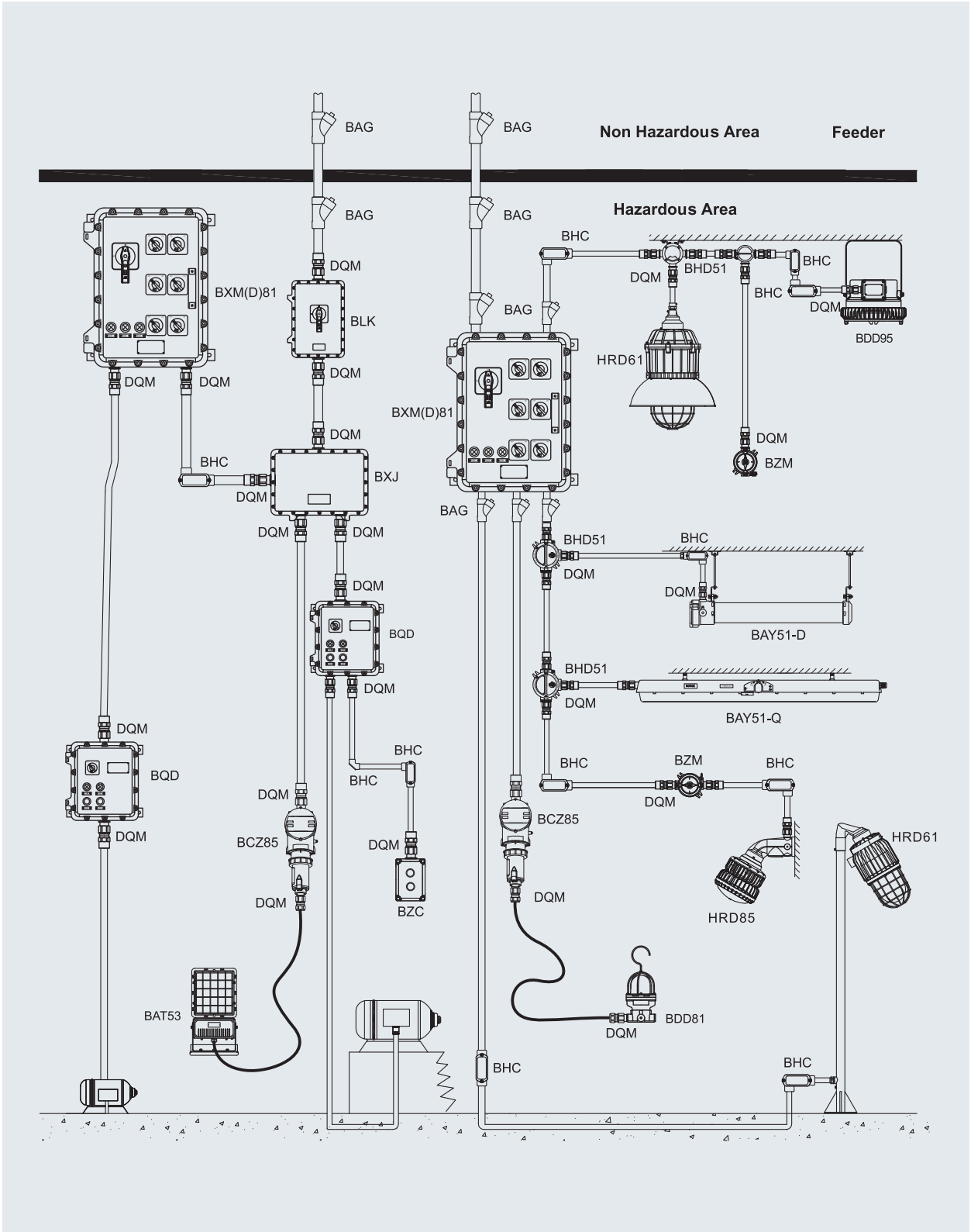
Schematic Diagram of Field Installation

The drawing simulates installed explosion-proof equipment with cable wiring on site, meeting IEC 60079 and NEC505 standards. It is designed as reference for user to select and install explosion-proof equipment.



Schematic Diagram of Field Installation

The drawing simulates installed explosion-proof equipment with steel pipe wiring on site, meeting IEC 60079 and NEC505 standards. It is designed as reference for user to select and install explosion-proof equipment.



Technical Data of Lamp

Kind reminder:

1. Except incandescent lamp and self ballast high pressure mercury lamp, other lamps such as high pressure mercury lamp, high pressure sodium lamp and metal halide lamp shall work with ballasts.
2. The lamps with matching ballasts shall work effectively to reach the longest service life.
   - It is not allowed to interchange the ballasts of different lamps.
   - Metal halide lamp is classified into HPI metal halide lamp (European standard) and MH metal halide lamp (American standard). They shall work with different ballasts respectively and it is also not allowed to interchange the ballasts.
3. Lamp codes in this catalogue as below:
   - Incandescent lamp: A
   - Self ballast high pressure mercury lamp: SME
   - High pressure mercury lamp: HME
   - Metal halide lamp: HIE
   - High pressure sodium lamp: HSE

T8 Standard straight-tube fluorescent lamp (Bi-pin)

Picture	Lamp power (W)	Colour	Colour temperature (K)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)
	18	Cool white	6200	1050	G13	13000	26	604
	36	Cool white	6200	2500	G13	13000	26	1214
	58	Cool white	6200	4000	G13	13000	26	1514

T8 Tri-phosphor straight-tube fluorescent lamp (Bi-pin)

Picture	Lamp power (W)	Colour	Colour temperature (K)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)
	18	Cool white	6500	1300	G13	15000	26	604
	36	Cool white	6500	3250	G13	15000	26	1214
	58	Cool white	6500	5000	G13	15000	26	1514

T5 HE Super-efficient fine straight-tube fluorescent lamp

Picture	Lamp power (W)	Colour	Colour temperature (K)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)
	14	Cool white	6500	1250	G5	24000	16	563
	28	Cool white	6500	2700	G5	24000	16	1163
	35	Cool white	6500	3400	G5	24000	16	1463

Self ballast high pressure mercury lamp

Picture	Lamp power (W)	Power supply (V AC)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)
	125	220	0.60	1650	E27	10000	75	168
	160	220	0.80	3100	E27	13000	76	177
	250	220	1.20	5600	E40	10000	91	232
	500	220	2.40	14000	E40	10000	122	287

High pressure mercury lamp

Picture	Lamp power (W)	Power supply (V AC)	Working voltage (V)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)
	80	220	110	0.80	3800	E27	16000	71	155
	125	220	115	1.15	6300	E27	16000	76	177
	175	220	130	1.50	7350	E40	8000	91	230
	250	220	130	2.13	13000	E40	16000	91	228
	400	220	135	3.25	22000	E40	16000	122	290

Technical Data of Lamp

High pressure sodium lamp

Picture	Lamp power (W)	Power supply (V)	Working voltage (V)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)
	70	220	90	1.00	6600	E27	28000	71	156
	100	220	100	1.20	10200	E27/E40	32000	76	186
	150	220	100	1.80	17000	E40	32000	91	227
	250	220	105	2.85	31100	E40	32000	91	227
	400	220	105	4.50	55500	E40	32000	122	290
	70	220	93	0.98	6600	E27	28000	39	156
	100	220	100	1.20	10700	E27/E40	32000	47	210
	150	220	100	1.80	18000	E40	32000	47	211
	250	220	100	3.00	33200	E40	32000	47	257
	400	220	100	4.50	56500	E40	32000	47	283
	1000	220	105	10.60	130000	E40	16000	66	390

Metal halide lamp (European standard)

Picture	Lamp power (W)	Power supply (V AC)	Working voltage (V)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)
	70	220	90	0.90	5800	E27	20000	56	141
	100	220	90	1.10	8700	E27	20000	56	141
	150	220	100	1.80	13500	E27	20000	56	141
	250	220	100	2.15	23200	E40	20000	91	228
	400	220	100	3.25	42000	E40	20000	122	280
	175	220	115	1.50	10500	E40	20000	37.5	110
	250	220	128	2.20	25000	E40	20000	47	257
	400	220	125	3.40	42500	E40	20000	47	286
	1000	220	130	8.25	85000	E40	12000	66	382

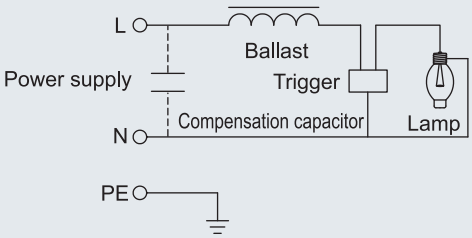
Metal halide lamp (American standard)

Picture	Lamp power (W)	Working voltage (V)	Working current (A)	Luminous flux (lm)	Lamp holder	Average life (h)	Diameter (mm)	Length (mm)
	70	85	0.98	5600	E27	10000	56	141
	100	100	1.1	9000	E27	10000	56	141
	150	95	1.8	13500	E27	10000	56	141
	175	132	1.5	16000	E40	20000	91	228
	250	133	2.0	23500	E40	20000	91	228
	400	135	3.35	41000	E40	20000	121	290
	175	132	1.5	13300	E40	12000	46	210
	250	133	2.1	20000	E40	12000	46	248
	400	135	3.25	36000	E40	12000	46	280

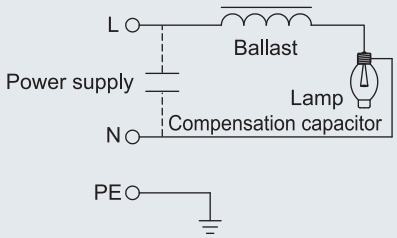
Note: Please specify the specification of lamp holder when ordering.

Technical Data of Lamp

Wiring diagram of European standard HID lamp and ballast



HSE, HIE



HME

Selection table of European standard HID lamp and corresponding electrical components

Lamp type	Lamp power(W)	Lamp holder	Ballast	Trigger	Capacitor
HSE	70	E27	HSE70	CD-7h	12μF
HSE	100	E27	HSE100	CD-7h	15μF
HSE	150	E40	HSE150	CD-7h	20μF
HSE	250	E40	HSE250	CD-7h	32μF
HSE	400	E40	HSE400	CD-7h	50μF
HSE	1000	E40	HSE1000	SN56	2 x 50μF
HIE	70	E27	HIE70	CD-7h	12μF
HIE	100	E27	HIE100	CD-7h	15μF
HIE	150	E27	HIE150	CD-7h	20μF
HIE	175	E40	HIE175	CD-7h	20μF
HIE	250	E40	HIE250	CD-7h	18μF
HIE	400	E40	HIE400	CD-7h	25μF
HIE	1000	E40	HIE1000	SI51Plus	2 x 32μF
HME	80	E27	HME80	——	8μF
HME	125	E27	HME125	——	12μF
HME	175	E40	HME175	——	15μF
HME	250	E40	HME250	——	18μF
HME	400	E40	HME400	——	25μF



Ballast

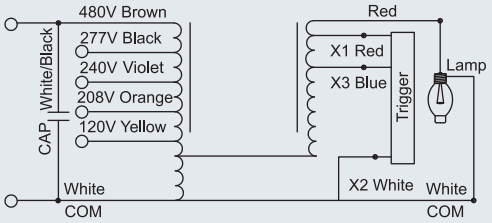


Trigger

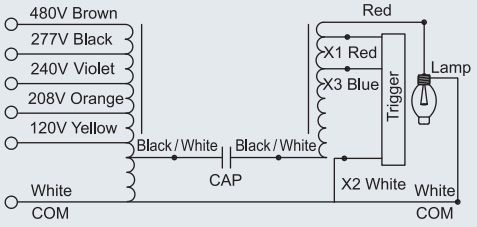


Capacitor

Wiring diagram of American standard HID lamp and ballast

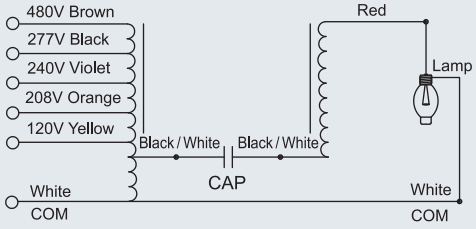


HX circuit for HSE: 50W, 70W, 100W, 150W



CWA-1 circuit for HIE: 50W, 70W, 100W, 150W

HSE: 250W, 400W, 600W, 1000W

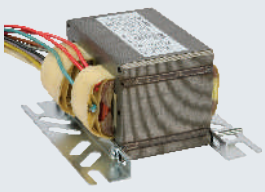


CWA-2 circuit for HIE: 175W, 250W, 400W, 1000W

Selection table of American standard HID lamp and corresponding electrical components

Lamp type	Power (W)	Lamp	Ballast	Voltage	Circuit	Trigger	Capacitor
HSE	50	S68	120560HPS50LTH	120/208/240/277/480V 60Hz	HX	IG-3MHL	CS-2/540V
HSE	70	S62	120560HPS70LTH	120/208/240/277/480V 60Hz	HX	IG-3MHL	CS-3/540V
HSE	100	S54	120560HPS100LTH	120/208/240/277/480V 60Hz	HX	IG-3MHL	CS-4/540V
HSE	150	S55	120560HPS150LTH	120/208/240/277/480V 60Hz	HX	IG-3MHL	CS-5/540V
HSE	250	S50	120560HPS250LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCM	CC-33/250V
HSE	400	S51	120560HPS400LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCM	CC-55/250V
HSE	600	S106	120560HPS600LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCM	CC-55/250V
HSE	1000	S52	120560HPS1000LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCH	CS-28/540V
HIE	50	M110	120560MH50LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCL	CC-6/300V
HIE	70	M98	120560MH70LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCL	CC-10/300V
HIE	100	M90	120560MH100LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCL	CC-12/300V
HIE	150	M102	120560MH150LTI	120/208/240/277/480V 60Hz	CWA-1	IG-3MCL	CC-18/300V
HIE	175	M57	120560MH175LTC	120/208/240/277/480V 60Hz	CWA-2	——	CS-12/540V
HIE	250	M58	120560MH250LTC	120/208/240/277/480V 60Hz	CWA-2	——	CS-15/540V
HIE	400	M59	120560MH400LTC	120/208/240/277/480V 60Hz	CWA-2	——	CS-24/540V
HIE	1000	M47	120560MH1000LTC	120/208/240/277/480V 60Hz	CWA-2	——	CS-24/540V

Note: Above table shows the capcitance of ballasts of 60Hz, and the capcitance for ballasts of 50Hz is different with this table, please specify when ordering



Ballast



Trigger



Capacitor

2



Lighting Technology

Light Fittings for Fluorescent Lamp

BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex d e q IIC)	2/2
BAY51-Q LED Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex d e IIC, Ex d e q IIC)	2/8
BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex d IIC)	2/14
BAY51-D Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex d IIB+H_2, Ex d IIB)	2/24
HRY52 Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex d IIC)	2/28
BAY-H Series Explosion-proof Annular Light Fittings for Fluorescent Lamp (Ex d IIB)	2/32
BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex nA IIC)	2/34
BAY51-G Series Explosion-proof Light Fittings for Fluorescent Lamp (Ex nA IIC)	2/40
HRY81-QT Series Explosion-proof Fluorescent Lamp for Derrick (Ex d e q IIC)	2/44

LED Light Fittings

HRD85 Series Explosion-proof LED Lightings (Ex d IIC)	2/46
HRD91-LED Series Explosion-proof LED Lightings (Ex d IIC)	2/50
HRD95 Series Explosion-proof LED Lightings (Ex d IIC)	2/54
HRD95-J Series Explosion-proof Emergency LED Light Fittings (Ex d IIC)	2/60
BDD95 Series Explosion-proof LED Lightings (Ex d e IIC)	2/64
BAT86 Series Explosion-proof LED Floodlights (Ex d IIB+H_2, Ex d IIB)	2/70
HRND95 Series Explosion-proof LED Lightings (Ex nR IIC)	2/76
HRNT95 Series Explosion-proof LED Floodlights (Ex nR IIC)	2/80

Contents

Pendant Light Fittings

HRD61 Series Explosion-proof Light Fittings (Ex d IIC) 2/84
HRD91 Series Explosion-proof Light Fittings (Ex d e IIC) 2/92
BDD81 Series Explosion-proof Lightings (Ex d IIC) 2/98
BDD91 Series Explosion-proof Light Fittings (Ex d IIC) 2/100
BnD81 Series Explosion-proof Light Fittings (Ex nR IIC) 2/108

Floodlights

BAT53 Series Explosion-proof Floodlights (Ex d e IIB, Ex d IIB) 2/116
BAT85 Series Explosion-proof Floodlights (Ex d IIC) 2/122
BnT81 Series Explosion-proof Floodlights (Ex nR IIC) 2/124
HRT81 Series Explosion-proof Floodlights (Ex nR IIC) 2/128

Street Lamps / Ballasts / Hand Lamps

Explosion-proof Street Lamps (Ex d e IIB, Ex d e IIC, Ex nR IIC, Ex d IIC) 2/130
BAZ51 Series Explosion-proof Ballasts (Ex d IIB) 2/132
HRD305 Portable Searchlight (Ex d ia IIC) 2/135
HRD309E Searchlight (Ex nA nR IIC) 2/136
HRD502A Strong Working Light (Ex d e IIC) 2/137
HRD318 Explosion-proof LED Hand Lamps (Ex d IIC) 2/138
BSX-60 Series Explosion-proof Incandescent Hand Lamps (Ex d e IIC) 2/139

Local, Caution Spotlight Fittings

BAJ52-20 Series Explosion-proof Emergency Light Fittings (Ex d IIB) 2/140
BAYD Series Explosion-proof Emergency Exit Light Fittings (Ex d IIC) 2/142
BAYD85 Series Explosion-proof Emergency Exit Light Fittings (Ex d IIB) 2/144
BAK51 Series Explosion-proof Tank Inspection Vessel Light Fittings (Ex d IIB) 2/146
BAK85 Series Explosion-proof LED Tank Inspection Vessel Light Fittings (Ex d IIC) 2/148
BSZD81-E Series Explosion-proof Caution Spotlight Fittings (Ex d e IIC) 2/150
BSZD81-C Series Explosion-proof Caution Spotlight Fittings (Ex d e IIC) 2/152
BBJ81 Series Explosion-proof Audio and Visual Caution Spotlight Fittings (Ex d ib IIC) 2/154
BJD81 Series Explosion-proof Caution Spotlight Fittings (Ex d IIC) 2/158

More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

Light Fittings for Fluorescent Lamp
BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp



- Explosion Protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Two enclosure types: Type I and Type II
  Available lamp and power
  T8 Fluorescent Lamps: 18W x 1, 36W x 1, 18W x 2, 36W x 2
- Enclosure in glass fiber reinforced polyester(GRP), diffuser in polycarbonate, corrosion-proof.
- Ex e enclosure with explosion-proof components inside.
- Safety interlock between enclosure and diffuser, switches off on opening.
- Built-in electronic ballast, power factor≥0.95.
- Emergency unit with protections against overcharge and over-discharge.
- End of lamp life (EOL) rectification effect protection.

Catalogue number logic

BAY51-Q □ x □ □ □

- □ J: Emergency lighting (optional)
- □ Mounting
  - L: pole type
  - X: ceiling type
  - B: wall type
  - D: pendant chain type
  - G: pendant pole type
- □ Lamp number
- □ Lamp power (W)
- BAY51-Q Explosion-proof light fittings for fluorescent lamp

Zones 1&2; 21&22

Technical data

Explosion-proof light fittings for fluorescent lamp BAY51-Q□ × □□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e q IIC T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T80℃ Db IP66
Certificates	LCIE 12 ATEX 3045X; IECEx CQM 07.0007 RU C-CN.ГБ05.B.00344 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-5, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-5, IEC 60079-7, IEC 60079-31
Material	
Enclosure	GRP, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, 90% light transmission, stands 7J impact
Ballast	Electronic ballast, power factor≥0.95, with protection against short circuit, overload, lamp aging, lamp damage and dissymmetry power of lamp tube. Certificate No.: LCIE 06 ATEX 0003U; IECEx CQM 07.0005U
Exposed fastener	Stainless steel
Interlock	BZX-6 explosion-proof distance switch, switching off on opening Certificate No.: LCIE 06 ATEX 0002U, IECEx CQM 07.0006U
Lamp	
Lamp specification	T8 tube (supplied with the light fittings)
Lamp power (W)	36W x 2 / 18W x 2 36W x 1 / 18W x 1
Rated voltage	96~254V AC 50/60Hz
Degree of protection	IP66, IP67(optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Cable entries	4 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic), 2 x M25 x 1.5 plugs.
Available cable outer diameter	Φ9~Φ16 (mm)

Selection table

Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-Q18 x 1L	18 x 1	6.80	BAY51-Q18 x 2L	18 x 2	7.00
BAY51-Q18 x 1X	18 x 1	6.70	BAY51-Q18 x 2X	18 x 2	6.90
BAY51-Q18 x 1B	18 x 1	7.80	BAY51-Q18 x 2B	18 x 2	7.90
BAY51-Q18 x 1D	18 x 1	8.10	BAY51-Q18 x 2D	18 x 2	8.20
BAY51-Q18 x 1G	18 x 1	7.70	BAY51-Q18 x 2G	18 x 2	7.85
BAY51-Q36 x 1L	36 x 1	11.40	BAY51-Q36 x 2L	36 x 2	11.60
BAY51-Q36 x 1X	36 x 1	11.30	BAY51-Q36 x 2X	36 x 2	11.40
BAY51-Q36 x 1B	36 x 1	12.30	BAY51-Q36 x 2B	36 x 2	12.50
BAY51-Q36 x 1D	36 x 1	12.60	BAY51-Q36 x 2D	36 x 2	12.75
BAY51-Q36 x 1G	36 x 1	12.20	BAY51-Q36 x 2G	36 x 2	12.40

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/6~7).

Light Fittings for Fluorescent Lamp
BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp

Technical data

Explosion-proof emergency light fittings for fluorescent lamp BAY51-Q□ × □□J

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e q IIC T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	TÜV CY 18 ATEX 0206027X; IECEx CQM 12.0002X; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-5, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-5, IEC 60079-7, IEC 60079-31
Material	
Enclosure	GRP, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, 90% light transmission, stands 7J impact
Ballast	Electronic ballast, power factor ≥ 0.95, with protection against short circuit, overload, lamp aging, lamp damage and dissymmetry power of lamp tube.
Emergency controller	BY-2 emergency controller Certificate No.: LCIE 10 ATEX 3010U, IECEx CQM 11.0041U
Exposed fastener	Stainless steel
Lamp	
Lamp specification	T8 tube (supplied with the light fittings)
Lamp power (W)	36W x 2 / 18W x 2 36W x 1 / 18W x 1
Emergency power (W)	36W x 1, 18W x 1
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)
Rated voltage	96~254V AC 50/60Hz
Degree of protection	IP66, IP67(optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Cable entries	4 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic), 2 x M25 x 1.5 plugs.
Available cable outer diameter	Φ9~Φ16 (mm)

Selection table

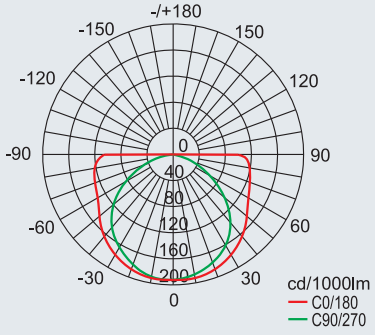
Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-Q18 x 1LJ	18 x 1	8.65	BAY51-Q18 x 2LJ	18 x 2	8.80
BAY51-Q18 x 1XJ	18 x 1	8.50	BAY51-Q18 x 2XJ	18 x 2	8.70
BAY51-Q18 x 1BJ	18 x 1	9.60	BAY51-Q18 x 2BJ	18 x 2	9.75
BAY51-Q18 x 1DJ	18 x 1	9.90	BAY51-Q18 x 2DJ	18 x 2	10.00
BAY51-Q18 x 1GJ	18 x 1	9.50	BAY51-Q18 x 2GJ	18 x 2	9.65
BAY51-Q36 x 1LJ	36 x 1	13.00	BAY51-Q36 x 2LJ	36 x 2	13.05
BAY51-Q36 x 1XJ	36 x 1	12.95	BAY51-Q36 x 2XJ	36 x 2	13.10
BAY51-Q36 x 1BJ	36 x 1	14.00	BAY51-Q36 x 2BJ	36 x 2	14.10
BAY51-Q36 x 1DJ	36 x 1	14.30	BAY51-Q36 x 2DJ	36 x 2	14.45
BAY51-Q36 x 1GJ	36 x 1	13.90	BAY51-Q36 x 2GJ	36 x 2	14.05

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/6~7).

Photometric data

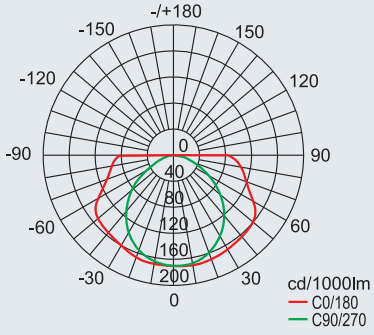
BAY51-Q18x1□□

Rated luminous flux
18Wx1: 1300lm



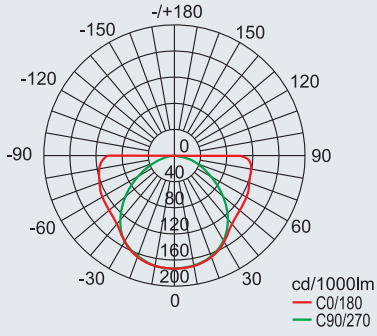
BAY51-Q18x2□□

Rated luminous flux
18Wx2: 2600lm



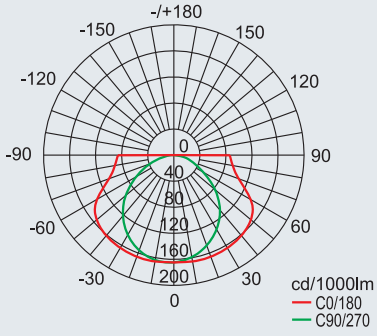
BAY51-Q36x1□□

Rated luminous flux
36Wx1: 3250lm



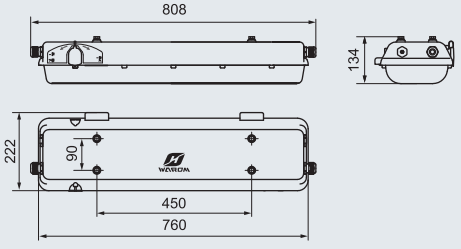
BAY51-Q36x2□□

Rated luminous flux
36Wx2: 6500lm

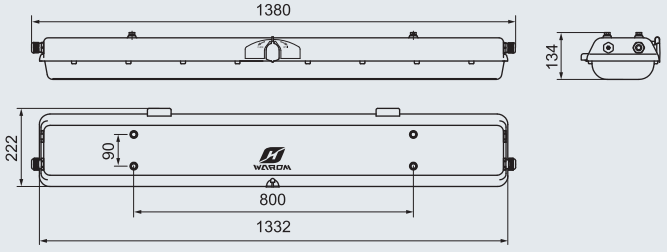


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Dimension drawings (all dimensions in mm) - subject to alteration



BAY51-Q18 x □ □ □



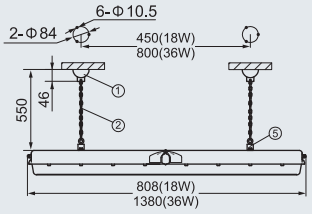
BAY51-Q36 x □ □ □

Light Fittings for Fluorescent Lamp
BAY51-Q Series Explosion-proof Light Fittings for Fluorescent Lamp

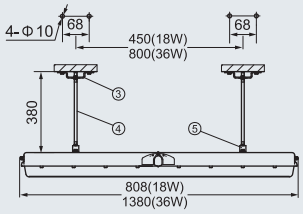
Mounting type (all dimensions in mm) – subject to alteration

Installation reference

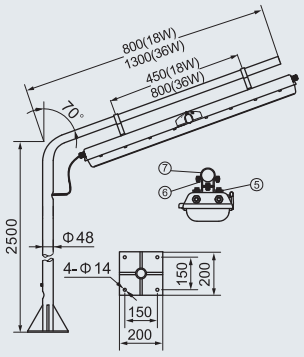
D: pendant chain type



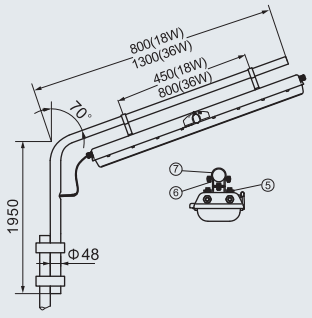
G: pendant pole type



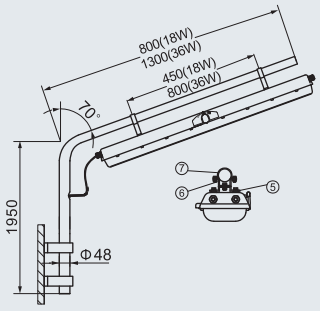
L: pole type (the pole is provided by user)



Suitable for ground pole type

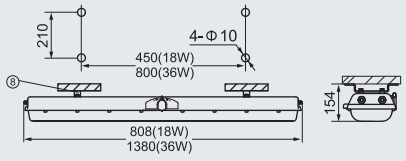


Suitable for fence pole type

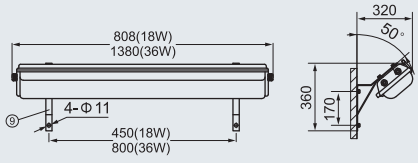


Suitable for wall pole type

X: ceiling type

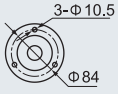
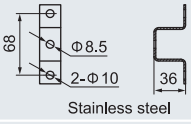
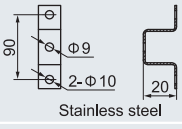


B: wall type



Mounting Accessories & Spare Parts Table

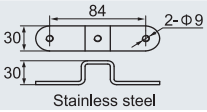
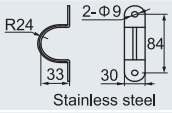
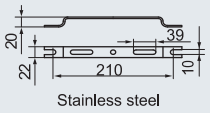
Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: pendant chain type	①.Sucker	2		5136017	0.15
	②.Chain	2	Length: 450mm	5136016	0.08
	⑤.Mounting bracket	2	Stainless steel, same as pendant pole type	5136030	0.07
G: pendant pole type	③.Mounting bracket	2		51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
	⑤.Mounting bracket	2		5136030	0.07

Note: Accessories not in the table shall be supplied by user.

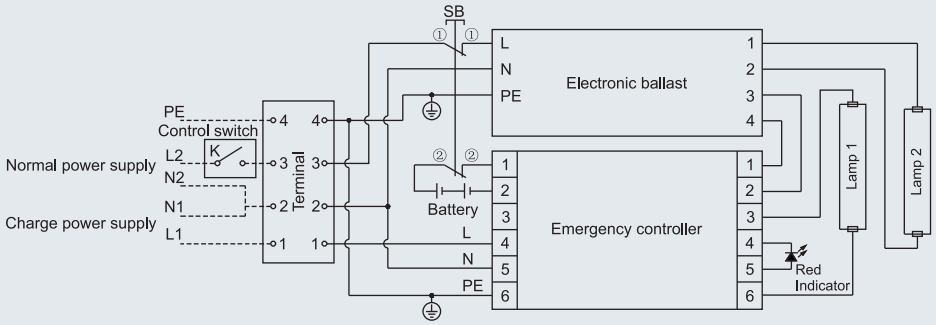
Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
L: pole type	⑥.Mounting bracket	2		5136012	0.04
	⑦.G1 1/2″ Pipe clamp	2		5136014	0.04
	⑤.Mounting bracket	2	Stainless steel, same as pendant pole type	5136030	0.07
X: ceiling type	⑧.Mounting bracket	2		5136015	0.20
B: wall type	⑨.Wall bracket	2	Stainless steel, welded sheet steel	5136B02	0.62

Note: Accessories not in the table shall be supplied by user.

Schematic diagram (BAY51-Q□x□□J, T8 fluorescent lamp)

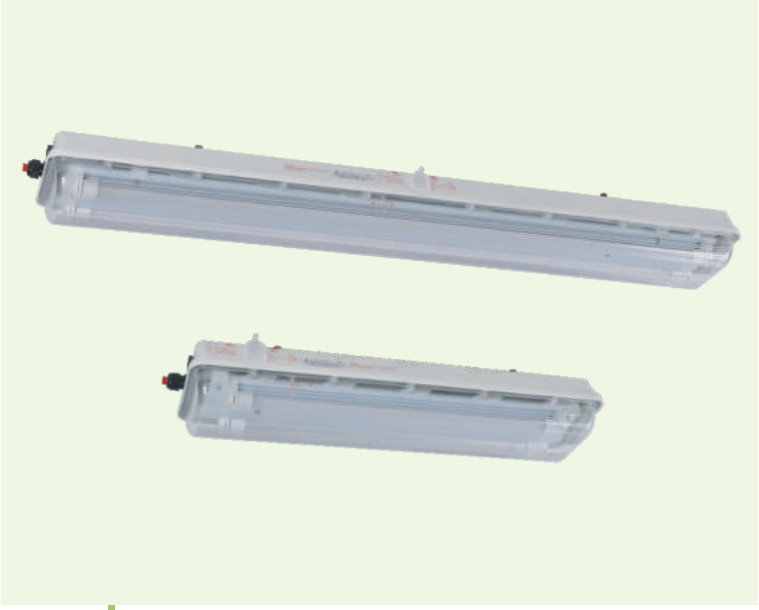


Note: Tube for lamp 2 shall be default for single tube fittings.

Accessories

Picture	Name	Ordering code	Weight (kg)
	Explosion-proof distance switch	5136003	0.04
	Spanner	5136004	0.02
	Lamp holder (with wires)	5136005	0.02
	YK36DF-2CS electronic ballast (T8/36W)	5136011	1.30
	YK18DF-2CS electronic ballast (T8/18W)	5118004	1.30
	BY-2 emergency controller (with battery) (T8/36W)	5136019	1.70
	BY-2 emergency controller (with battery) (T8/18W)	5118005	1.70

Light Fittings for Fluorescent Lamp
BAY51-Q LED Series Explosion-proof Light Fittings for Fluorescent Lamp



- Explosion Protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Two enclosure types: Type I and Type II
- Available lamp and power
  Built-in power supply, LED lamp and driving power are integrated type: 9W×1, 18W×1, 9W×2, 18W×2;
  External power supply, LED lamp and driving power are split type: 14W x 1, 14W x 2, 28W x 1, 28W x 2.
- Enclosure in glass fiber reinforced polyester(GRP), diffuser in polycarbonate, corrosion-proof.
- Ex e enclosure with explosion-proof components inside.
- Safety interlock between enclosure and diffuser, switches off on opening.
- Built-in LED driver, wide voltage input, CC-CV (constant current-constant voltage) output, power factor≥0.95.
- Emergency unit with protections against overcharge and over-discharge.

Catalogue number logic

BAY51-Q □ □ x □ □ □

- J: Emergency lighting (optional)
- Mounting
  - L: pole type
  - X: ceiling type
  - B: wall type
  - D: pendant chain type
  - G: pendant pole type
- Lamp number
- Lamp power (W)
- LED: LED lamp
- Explosion-proof light fittings for fluorescent lamp

Zones 1&2; 21&22

Technical data

Explosion-proof light fittings with LED tubes BAY51-Q LED □×□□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db eb op is IIC T4 Gb[1)]
	Ⓔx II 2 G Ex db eb q op is IIC T4 Gb[1)]
Dust explosion protection	Ⓔx II 2 D Ex tb op is IIIC T80℃ Db IP66[1)]
	[1)] See Selection Table
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-5, EN 60079-7, EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-5, IEC 60079-7, IEC 60079-28, IEC 60079-31
Material	
Enclosure	GRP, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, 90% light transmission, stands 7J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ⩾0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module (supplied with the light fittings)
Lamp power (W)	9W×1, 18W×1, 9W×2, 18W×2 (LED lamp and driving power are integrated type) 14W x 1, 28W x 1, 14W x 2, 28W x 2 (LED lamp and driving power are split type)
Colour Temperature (CCT)	5000~5700K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	Built-in power supply, LED lamp and driving power are integrated type: 170~264V AC 50/60Hz External power supply, LED lamp and driving power are split type: 100~277V AC 50/60Hz; 200~250V DC
Degree of protection	IP66, IP67(optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Cable entries	4 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic), 2 x M25 x 1.5 plugs.
Available cable outer diameter	Φ9~Φ16 (mm)
Emergency data	
Emergency controller	Special emergency controller and battery pack, with protection against overcharge and overdischarge.
Emergency power (W)	14W x 1, 28W x 1
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)

Selection table

Lamp tube type	LED lamp and driving power are integrated type	LED lamp and driving power are split type
Explosion protection	Ⓔx II 2 G Ex db eb op is IIC T4 Gb Ⓔx II 2 D Ex tb op is IIIC T80℃ Db IP66	Ⓔx II 2 G Ex db eb q op is IIC T4 Gb Ⓔx II 2 D Ex tb op is IIIC T80℃ Db IP66
Lamp power (W)	9W×1, 18W×1, 9W×2, 18W×2	14W x 1, 28W x 1, 14W x 2, 28W x 2

Light Fittings for Fluorescent Lamp
BAY51-Q LED Series Explosion-proof Light Fittings for Fluorescent Lamp

Selection table for external power supply, LED lamp and driving power are split type

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-Q LED14 x 1L	14 x 1	8.00	BAY51-Q LED14 x 1LJ	14 x 1	8.30	BAY51-Q LED14 x 2L	14 x 2	8.45	BAY51-Q LED14 x 2LJ	14 x 2	8.80
BAY51-Q LED14 x 1X	14 x 1	7.90	BAY51-Q LED14 x 1XJ	14 x 1	8.20	BAY51-Q LED14 x 2X	14 x 2	8.35	BAY51-Q LED14 x 2XJ	14 x 2	8.70
BAY51-Q LED14 x 1B	14 x 1	8.90	BAY51-Q LED14 x 1BJ	14 x 1	9.20	BAY51-Q LED14 x 2B	14 x 2	9.35	BAY51-Q LED14 x 2BJ	14 x 2	9.70
BAY51-Q LED14 x 1D	14 x 1	9.20	BAY51-Q LED14 x 1DJ	14 x 1	9.50	BAY51-Q LED14 x 2D	14 x 2	9.65	BAY51-Q LED14 x 2DJ	14 x 2	10.00
BAY51-Q LED14 x 1G	14 x 1	8.85	BAY51-Q LED14 x 1GJ	14 x 1	9.15	BAY51-Q LED14 x 2G	14 x 2	9.30	BAY51-Q LED14 x 2GJ	14 x 2	9.65
BAY51-Q LED28 x 1L	28 x 1	12.50	BAY51-Q LED28 x 1LJ	28 x 1	13.10	BAY51-Q LED28 x 2L	28 x 2	12.90	BAY51-Q LED28 x 2LJ	28 x 2	13.60
BAY51-Q LED28 x 1X	28 x 1	13.20	BAY51-Q LED28 x 1XJ	28 x 1	13.90	BAY51-Q LED28 x 2X	28 x 2	13.70	BAY51-Q LED28 x 2XJ	28 x 2	14.40
BAY51-Q LED28 x 1B	28 x 1	13.30	BAY51-Q LED28 x 1BJ	28 x 1	14.00	BAY51-Q LED28 x 2B	28 x 2	13.80	BAY51-Q LED28 x 2BJ	28 x 2	14.50
BAY51-Q LED28 x 1D	28 x 1	13.55	BAY51-Q LED28 x 1DJ	28 x 1	14.25	BAY51-Q LED28 x 2D	28 x 2	14.00	BAY51-Q LED28 x 2DJ	28 x 2	14.75
BAY51-Q LED28 x 1G	28 x 1	13.20	BAY51-Q LED28 x 1GJ	28 x 1	13.90	BAY51-Q LED28 x 2G	28 x 2	13.70	BAY51-Q LED28 x 2GJ	28 x 2	14.40

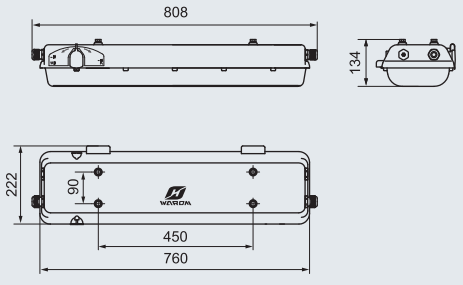
Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/12~13).

Selection table for built-in power supply, LED lamp and driving power are integrated type

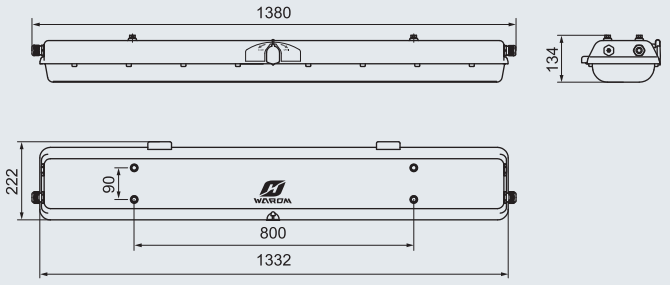
Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-Q LED9 x 1L	9 x 1	7.40	BAY51-Q LED9 x 2L	9 x 2	8.05
BAY51-Q LED9 x 1X	9 x 1	7.50	BAY51-Q LED9 x 2X	9 x 2	7.95
BAY51-Q LED9 x 1B	9 x 1	8.50	BAY51-Q LED9 x 2B	9 x 2	8.95
BAY51-Q LED9 x 1D	9 x 1	8.80	BAY51-Q LED9 x 2D	9 x 2	9.25
BAY51-Q LED9 x 1G	9 x 1	8.45	BAY51-Q LED9 x 2G	9 x 2	8.90
BAY51-Q LED18 x 1L	18 x 1	12.10	BAY51-Q LED18 x 2L	18 x 2	12.50
BAY51-Q LED18 x 1X	18 x 1	12.80	BAY51-Q LED18 x 2X	18 x 2	13.30
BAY51-Q LED18 x 1B	18 x 1	12.90	BAY51-Q LED18 x 2B	18 x 2	13.40
BAY51-Q LED18 x 1D	18 x 1	13.15	BAY51-Q LED18 x 2D	18 x 2	13.60
BAY51-Q LED18 x 1G	18 x 1	12.80	BAY51-Q LED18 x 2G	18 x 2	13.50

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/12~13).

Dimension drawings (all dimensions in mm) - subject to alteration



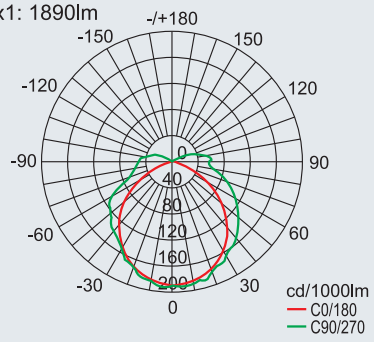
BAY51-Q LED 14 x ☐ ☐ ☐
BAY51-Q LED 9 x ☐ ☐



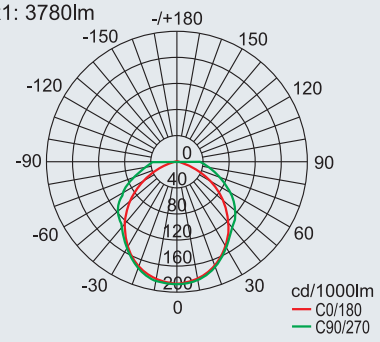
BAY51-Q LED 28 x ☐ ☐ ☐
BAY51-Q LED 18 x ☐ ☐

Photometric data Note: LED luminous flux is from the standard product of which colour temperature is 5000 to 5700K

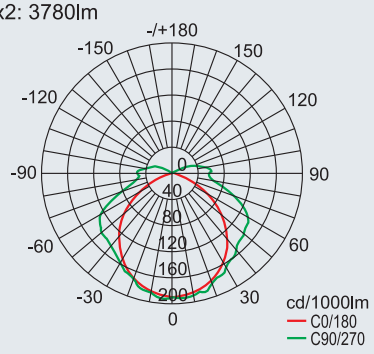
BAY51-Q LED 14x1 □□
Rated luminous flux
LED 14Wx1: 1890lm



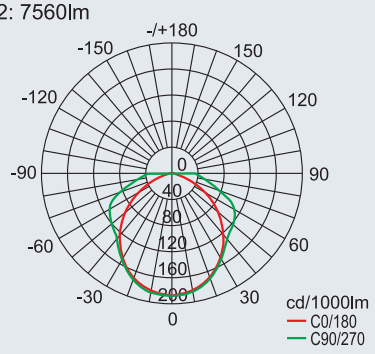
BAY51-Q LED 28x1 □□
Rated luminous flux
LED 28Wx1: 3780lm



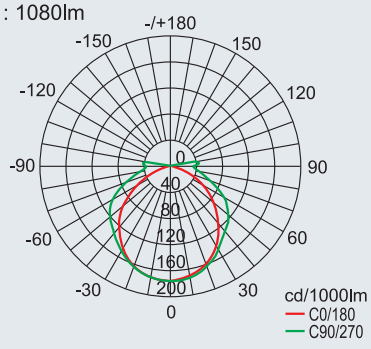
BAY51-Q LED 14x2 □□
Rated luminous flux
LED 14Wx2: 3780lm



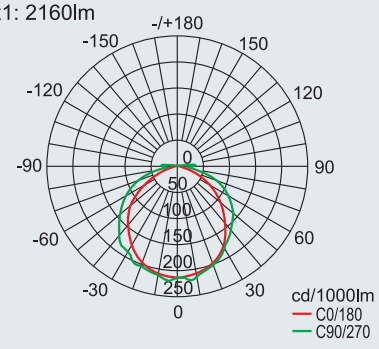
BAY51-Q LED 28x2 □□
Rated luminous flux
LED 28Wx2: 7560lm



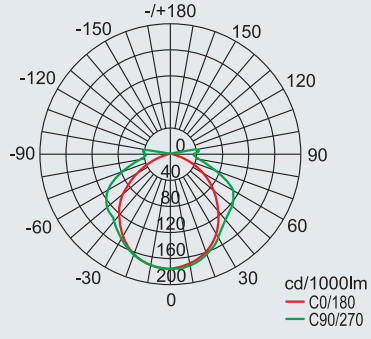
BAY51-Q LED 9x1 □
Rated luminous flux
LED 9Wx1: 1080lm



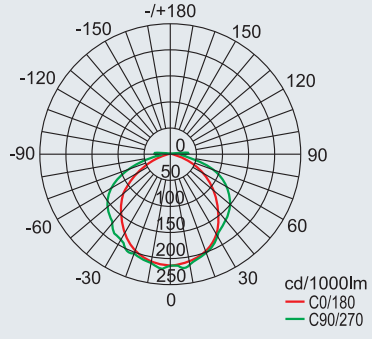
BAY51-Q LED 18x1 □
Rated luminous flux
LED 18Wx1: 2160lm



BAY51-Q LED 9x2 □
Rated luminous flux
LED 9Wx2: 2160lm



BAY51-Q LED 18x2 □
Rated luminous flux
LED 18Wx2: 4320lm



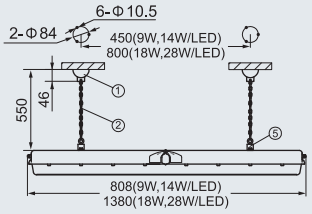
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Light Fittings for Fluorescent Lamp
BAY51-Q LED Series Explosion-proof Light Fittings for Fluorescent Lamp

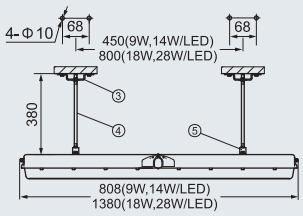
Mounting type (all dimensions in mm) – subject to alteration

Installation reference

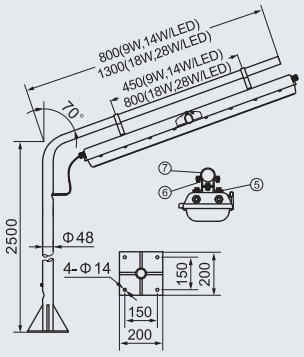
D: pendant chain type



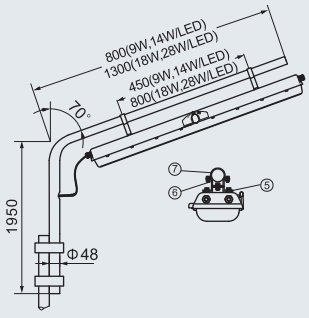
G: pendant pole type



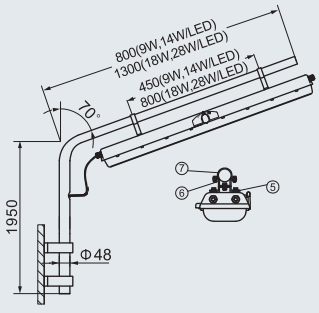
L: pole type (the pole is provided by user)



Suitable for ground pole type

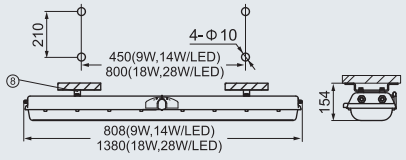


Suitable for fence pole type

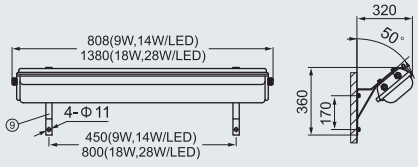


Suitable for wall pole type

X: ceiling type

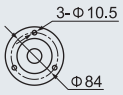
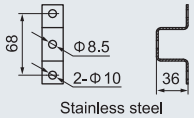
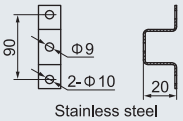


B: wall type



Mounting Accessories & Spare Parts Table

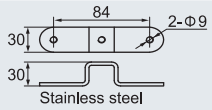
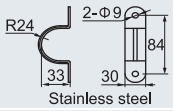
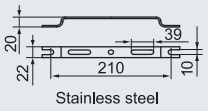
Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: pendant chain type	①.Sucker	2		5136017	0.15
	②.Chain	2	Length: 450mm	5136016	0.08
	⑤.Mounting bracket	2	Stainless steel, same as pendant pole type	5136030	0.07
G: pendant pole type	③.Mounting bracket	2		51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
	⑤.Mounting bracket	2		5136030	0.07

Note: Accessories not in the table shall be supplied by user.

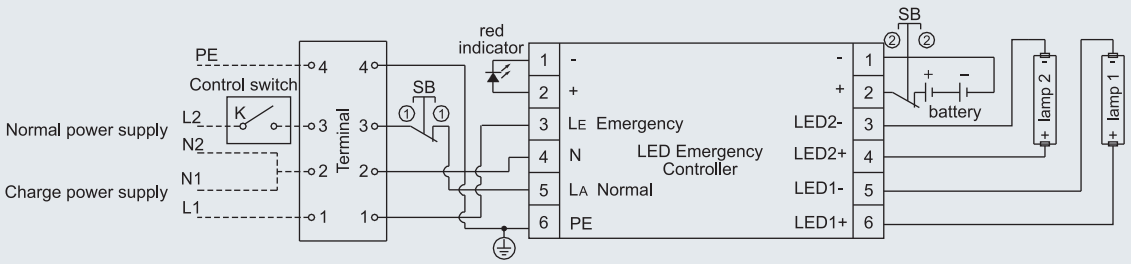
Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
L: pole type	⑥.Mounting bracket	2		5136012	0.04
	⑦.G1 1/2″ Pipe clamp	2		5136014	0.04
	⑤.Mounting bracket	2	Stainless steel, same as pendant pole type	5136030	0.07
X: ceiling type	⑧.Mounting bracket	2		5136015	0.20
B: wall type	⑨.Wall bracket	2	Stainless steel, welded sheet steel	5136B02	0.62

Note: Accessories not in the table shall be supplied by user.

Schematic diagram (BAY51-Q LED□x□□J, LED lamp)

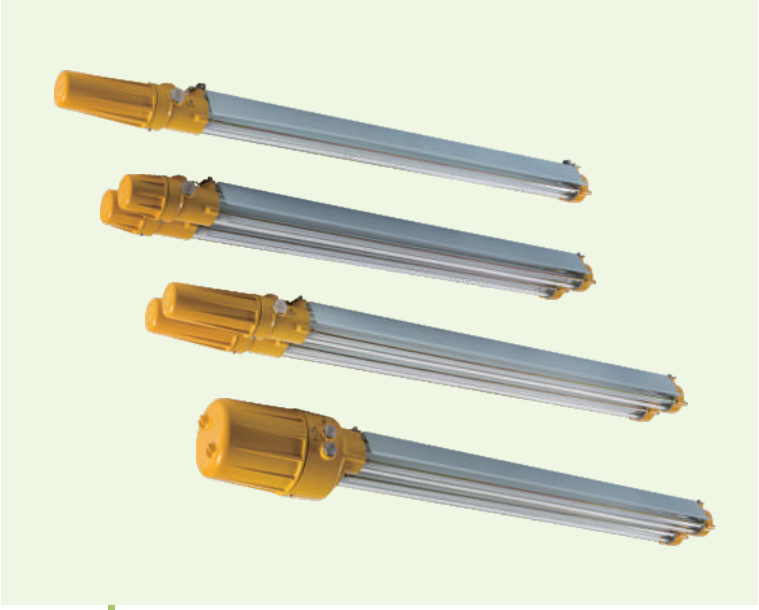


Note: Tube for lamp 2 shall be default for single tube fittings.

Accessories

Picture	Name	Ordering code	Weight (kg)
	HRB14-2C Explosion-proof LED driver (LED/14W)	5114001	1.30
	HRB28-2C Explosion-proof LED driver (LED/28W)	5128001	1.30
	HRE14-2C Explosion-proof LED emergency controller (LED/14W)	5114002	1.75
	HRE28-2C Explosion-proof LED emergency controller (LED/28W)	5128002	1.75
	BT8-9 Explosion-proof LED lamp tube (LED/9W)	51E0901	0.25
	BT8-18 Explosion-proof LED lamp tube (LED/18W)	51E1801	0.52
	BT8-14 Explosion-proof LED lamp tube (LED/14W)	5114003	0.18
	BT8-28 Explosion-proof LED lamp tube (LED/28W)	5128003	0.34

Light Fittings for Fluorescent Lamp
BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- Single or dual lamp versions
- Available lamp and power
  - Fluorescent lamps: 18W x 1, 36W x 1, 58W x 1, 18W x 2, 36W x 2, 58W x 2.
  - LED lamps: 9W x 1, 9W x 2, 18W x 1, 18W x 2, 28W x 1, 28W x 2.
- The glass tube stands 4J impact.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).
- Built-in electronic ballast, wide voltage input, rapid starting, stable performance, power factor≥0.95.
- Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95.
- End of lamp life (EOL) rectification effect protection.

Catalogue number logic

BAY51-□ □ x □ □ □

- J: Emergency lighting (optional)
- Mounting: L: pole type; X: ceiling type
- Lamp number
- Lamp power (W)
- LED: Only for LED lamp
- Explosion-proof light fittings for fluorescent lamp

Zones 1&2; 21&22

Technical data

Explosion-proof light fittings for fluorescent lamp BAY51-□ x □□

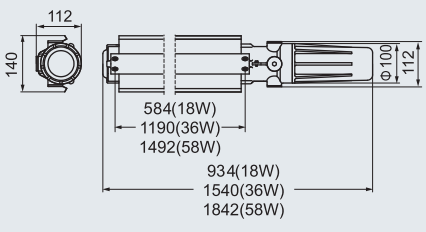
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66 Ex t IIIC T80℃ Db IP66
Certificates	LCIE 09 ATEX 3046; IECEx CQM 12.0042X; RU C-CN.ГБ05.B.00344 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
Ballast	Electronic ballast
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector	Powder coated pure aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp specification	T8 tube (supplied with the light fittings)
Lamp power (W)	18W x 1 18W x 2 36W x 1 36W x 2 58W x 1 58W x 2
Rated voltage	100~300V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67 (optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Cable entries	
Single lamp	2 x M25 x 1.5 plugs
Dual lamp	2 x M25 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table

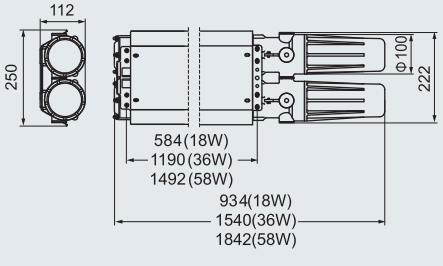
Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-18 x 1X	18 x 1	5.60	BAY51-18 x 2X	18 x 2	10.60
BAY51-18 x 1L	18 x 1	6.50	BAY51-18 x 2L	18 x 2	11.55
BAY51-36 x 1X	36 x 1	8.80	BAY51-36 x 2X	36 x 2	16.30
BAY51-36 x 1L	36 x 1	9.30	BAY51-36 x 2L	36 x 2	16.85
BAY51-58 x 1X	58 x 1	10.40	BAY51-58 x 2X	58 x 2	18.30
BAY51-58 x 1L	58 x 1	10.85	BAY51-58 x 2L	58 x 2	19.20

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/21~22).

Dimension drawings (all dimensions in mm) - subject to alteration



BAY51-□x1□



BAY51-□x2□

Light Fittings for Fluorescent Lamp
BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

Technical data

Explosion-proof emergency light fittings for fluorescent lamp BAY51-□ x □□J

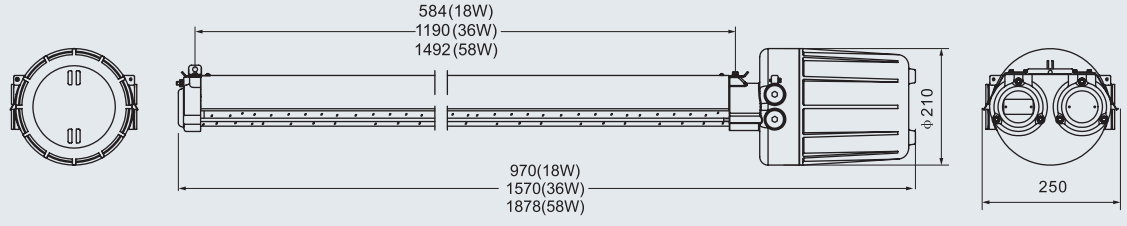
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 13 ATEX 3003X; IECEx CQM 13.0004X; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
Emergency unit	Special emergency controller and Ni-MH battery pack, with protection against over-charge and overdischarge
Ballast	Electronic ballast
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector	Powder coated pure aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp specification	T8 tube (supplied with the light fittings)
Lamp power (W)	18W x 2, 36W x 2, 58W x 2
Emergency power (W)	18W x 1, 36W x 1, 58W x 1
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)
Rated voltage	100~300V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Cable entries	4 x M25 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table

Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-18 x 2XJ	18 x 2	14.50	BAY51-36 x 2LJ	36 x 2	20.30
BAY51-18 x 2LJ	18 x 2	14.60	BAY51-58 x 2XJ	58 x 2	22.20
BAY51-36 x 2XJ	36 x 2	20.20	BAY51-58 x 2LJ	58 x 2	22.30

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/23).

Dimension drawings (all dimensions in mm) - subject to alteration

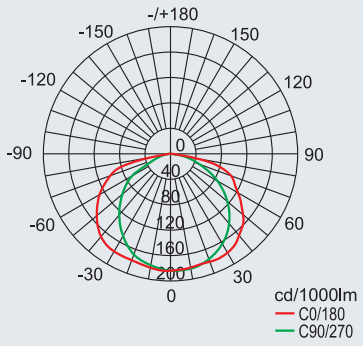


BAY51-□x2□J

Photometric data

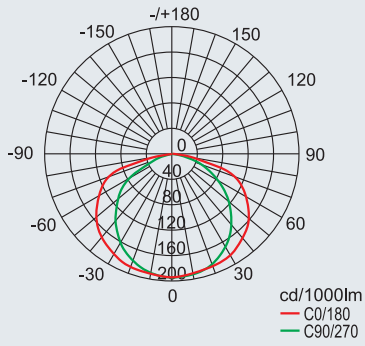
BAY51-18x1□□

Rated luminous flux
18Wx1: 1300lm



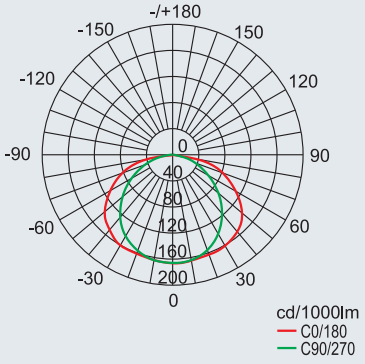
BAY51-18x2□□

Rated luminous flux
18Wx2: 2600lm



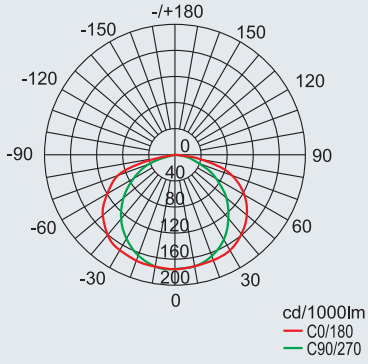
BAY51-36x1□□

Rated luminous flux
36Wx1: 3250lm



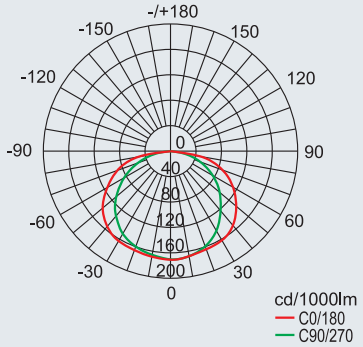
BAY51-36x2□□

Rated luminous flux
36Wx2: 6500lm



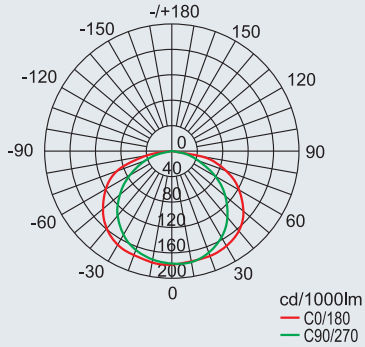
BAY51-58x1□□

Rated luminous flux
58Wx1: 5000lm



BAY51-58x2□□

Rated luminous flux
58Wx2: 10000lm



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Light Fittings for Fluorescent Lamp
BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

Technical data

Explosion-proof light fittings with LED tubes BAY51-LED□ × □□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	EPT 15 ATEX 2287X; LCIE 11 ATEX 3112X; IECEx CQM 12.0005X; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector	Powder coated pure aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module (supplied with the light fittings)
Lamp power (W)	9W x 1, 9W x 2, 18W x 1, 18W x 2, 28W x 1, 28W x 2
Colour Temperature (CCT)	5000~5700K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	110~265V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)

Ambient temperature

Certificates	Lamp power (W)	Ambient temperature
EPT 15 ATEX 2287X	9W x 1, 9W x 2, 18W x 1 18W x 2, 28W x 1, 28W x 2	-20℃~+55℃
LCIE 11 ATEX 3112X	9W x 1, 9W x 2 18W x 1, 18W x 2	-40℃~+55℃
IECEx CQM 12.0005X	9W x 1, 9W x 2, 18W x 1, 18W x 2	-40℃~+55℃
	28W x 1, 28W x 2	-20℃~+55℃

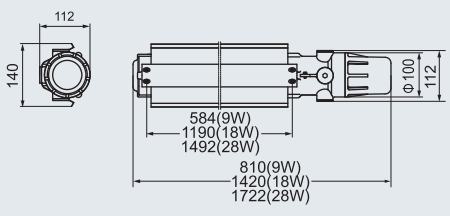
Terminal	3 x 1.5~4mm² (L+N+PE)
Mounting	Ceiling type, pole type
Cable entries	
Single lamp	2 x M25 x 1.5 plugs
Dual lamp	2 x M25 x 1.5 plugs
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table

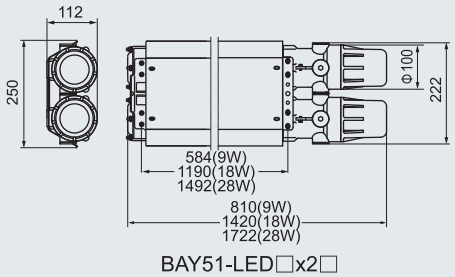
Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-LED 9 x 1X	9 x 1	5.50	BAY51-LED 9 x 2X	9 x 2	9.80
BAY51-LED 9 x 1L	9 x 1	5.90	BAY51-LED 9 x 2L	9 x 2	10.50
BAY51-LED 18 x 1X	18 x 1	8.30	BAY51-LED 18 x 2X	18 x 2	15.70
BAY51-LED 18 x 1L	18 x 1	8.35	BAY51-LED 18 x 2L	18 x 2	16.40
BAY51-LED 28 x 1X	28 x 1	10.00	BAY51-LED 28 x 2X	28 x 2	17.30
BAY51-LED 28 x 1L	28 x 1	10.30	BAY51-LED 28 x 2L	28 x 2	18.30

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/21~22).

Dimension drawings (all dimensions in mm) - subject to alteration



BAY51-LED□x1□



BAY51-LED□x2□

Technical data

Explosion-proof light fittings with LED tubes BAY51-LED□ × □□J

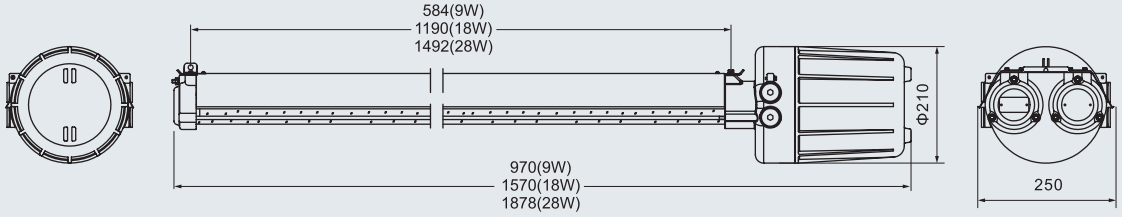
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	EUT 14 ATEX 1885; IECEx CQM 14.0051X; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Emergency unit	Special emergency controller and Ni-MH battery pack, with protection against over-charge and overdischarge
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector	Powder coated pure aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module (supplied with the light fittings)
Lamp power (W)	9W x 2, 18W x 2, 28W x 2
Colour Temperature (CCT)	5000~5700K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Emergency power (W)	9W x 1, 18W x 1, 28W x 1
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)
Rated voltage	110~265V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67 (optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Cable entries	4 x M25 x 1.5 plugs
Cable gland(optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-LED 9 x 2XJ	9 x 2	13.70	BAY51-LED 18 x 2XJ	18 x 2	19.40	BAY51-LED 28 x 2XJ	28 x 2	21.40
BAY51-LED 9 x 2LJ	9 x 2	13.80	BAY51-LED 18 x 2LJ	18 x 2	19.50	BAY51-LED 28 x 2LJ	28 x 2	21.50

Note: Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/23).

Dimension drawings (all dimensions in mm) - subject to alteration

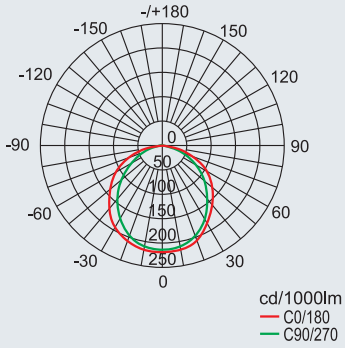


BAY51- LED□x2□J

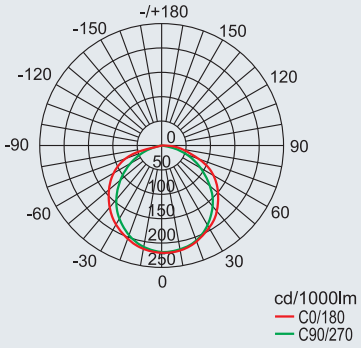
Light Fittings for Fluorescent Lamp
BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

Photometric data
Note: LED luminous flux is from the standard product of which colour temperature is 5000 to 5700K

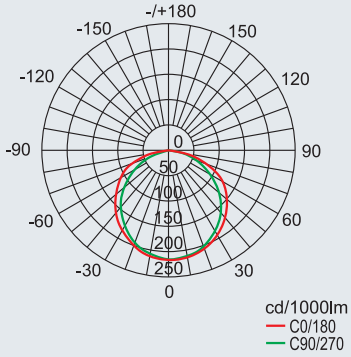
BAY51-LED 9x1□
Rated luminous flux
LED 9Wx1: 1080lm



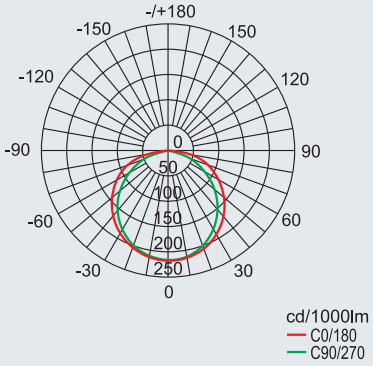
BAY51-LED 9x2□□
Rated luminous flux
LED 9Wx2: 2160lm



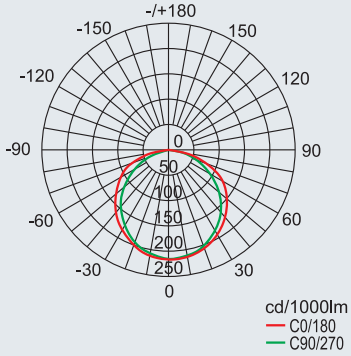
BAY51-LED 18x1□
Rated luminous flux
LED 18Wx1: 2160lm



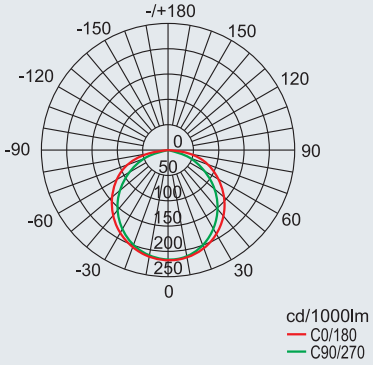
BAY51-LED 18x2□□
Rated luminous flux
LED 18Wx2: 4320lm



BAY51-LED 28x1□
Rated luminous flux
LED 28Wx1: 3360lm



BAY51-LED 28x2□□
Rated luminous flux
LED 28Wx2: 6720lm

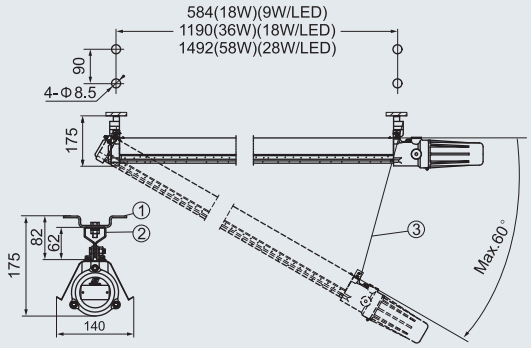


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

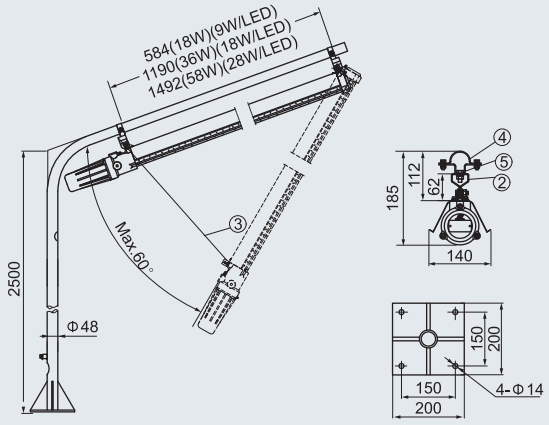
Mounting type for light fittings with single lamp tube (all dimensions in mm) - subject to alteration

Installation reference

X: ceiling type

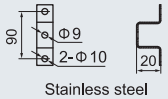
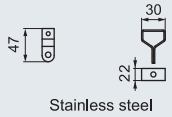
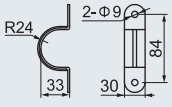
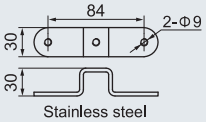


L: pole type (the pole is provided by user)



Mounting Accessories & Spare Parts Table (light fittings with single lamp tube)

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①.Mounting bracket	2	 Stainless steel	5136030	0.07
	②.Connector	2	 Stainless steel	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, Length: 0.7m (18W), 1.3m (36W), 1.6m (58W)	51S01X2	0.30~0.50
L: pole type	④.G1 1/2″ Pipe clamp	2	 Stainless steel	5136014	0.04
	⑤.Mounting bracket	2	 Stainless steel	5136012	0.04
	②.Connector	2	Stainless steel, same as ceiling type	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, same as ceiling type	51S01X2	0.30~0.50

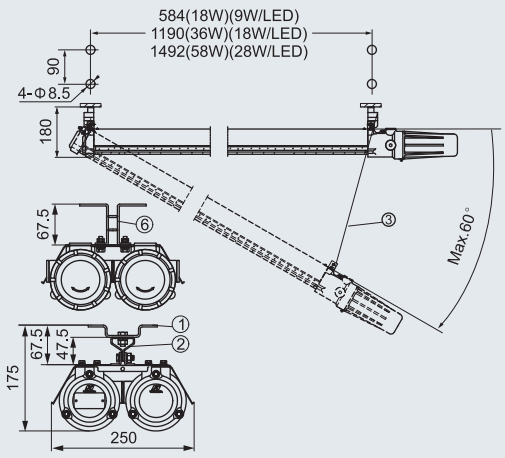
Note: Accessories not in the table shall be supplied by user.

Light Fittings for Fluorescent Lamp
BAY51 Series Explosion-proof Light Fittings for Fluorescent Lamp

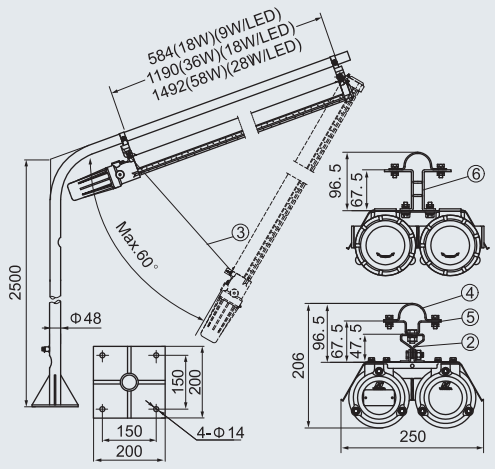
Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration

Installation reference

X: ceiling type

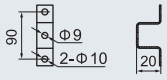
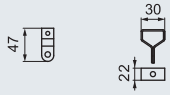
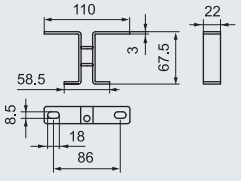
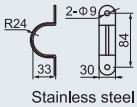
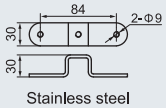


L: pole type (the pole is provided by user)



Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

Supplied according to the mounting type

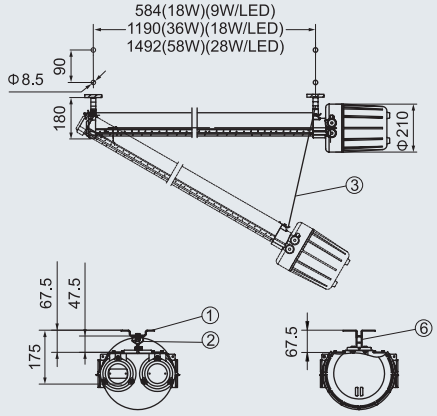
Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①.Mounting bracket	1	 Stainless steel	5136030	0.07
	②.Connector	1	 Stainless steel	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, length: 0.7m (18W), 1.3m (36W), 1.6m (58W)	51S01X2	0.30~0.50
	⑥.Mounting bracket	1	 Stainless steel	51D01X3	0.13
L: pole type	④.G1 1/2″ Pipe clamp	2	 Stainless steel	5136014	0.04
	⑤.Mounting bracket	1	 Stainless steel	5136012	0.04
	②.Connector	2	Stainless steel, same as ceiling type	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, same as ceiling type	51S01X2	0.30~0.50
	⑥.Mounting bracket	1	Stainless steel, same as ceiling type	51D01X3	0.13

Note: Accessories not in the table shall be supplied by user.

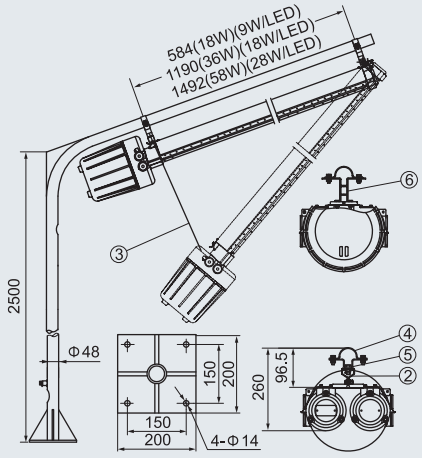
Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration

Installation reference

X: ceiling type (for: BAY51-□ × 2XJ; BAY51-LED□ × 2XJ)

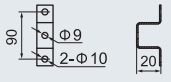
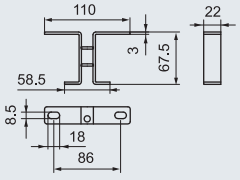
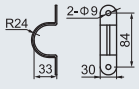
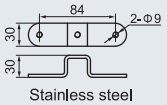


L: pole type (the pole is provided by user)
(for: BAY51-□ × 2LJ; BAY51-LED□ × 2LJ)



Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①.Mounting bracket	1	 Stainless steel	5136030	0.07
	②.Connector	1	 Stainless steel	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, length: 0.7m (18W), 1.3m (36W), 1.6m (58W)	51S01X2	0.30~0.50
	⑥.Mounting bracket	1	 Stainless steel	51D01X3	0.13
L: pole type	④.G1 1/2″ Pipe clamp	2	 Stainless steel	5136014	0.04
	⑤.Mounting bracket	1	 Stainless steel	5136012	0.04
	②.Connector	2	Stainless steel, same as ceiling type	51S01X1	0.04
	③.Steel wire rope (with hook)	1	Stainless steel, same as ceiling type	51S01X2	0.30~0.50
	⑥.Mounting bracket	1	Stainless steel, same as ceiling type	51D01X3	0.13

Note: Accessories not in the table shall be supplied by user.

Light Fittings for Fluorescent Lamp
BAY51-D Series Explosion-proof Light Fittings for Fluorescent Lamp



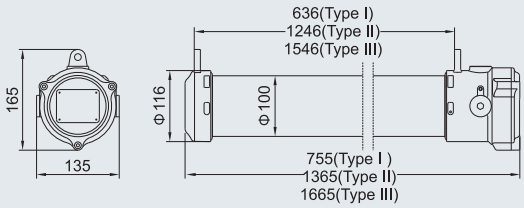
- Explosion Protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups B, C, D
- Three enclosure types: Type I, Type II and Type III
  Available lamp and power
  Type I: T8 18W x 2, T5 14W x 2, LED 9W x 2
  Type II: T8 36W x 2, T5 28W x 2, LED 18W x 2
  Type III: T8 58W x 2, T5 35W x 2, LED 28W x 2
- The glass tube stands 4J impact.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).
- Built-in electronic ballast, wide voltage input, rapid starting, stable performance, power factor≥0.95.
- Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95.
- End of lamp life (EOL) rectification effect protection.
- Emergency functions are available on request.

Catalogue number logic

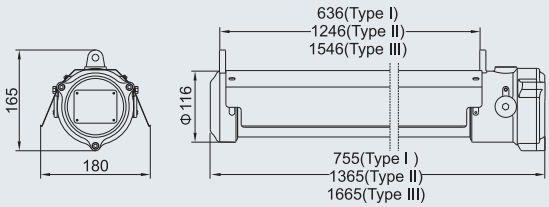
BAY51-D-□ □ x □ □

- Mounting
  - G1: pendant pole type 1
  - G2: pendant pole type 2
  - L: pole type
  - X: ceiling type
- Lamp number
- Lamp power (W)
- LED: Only for LED lamp
- Explosion-proof light fittings for fluorescent lamp

Dimension drawings (all dimensions in mm) - subject to alteration



BAY51-D-□□x2□
Without external reflector



BAY51-D-□□x2□
With external reflector

Zones 1&2; 21&22

Technical data

Explosion-proof light fittings for fluorescent lamp BAY51-D-□□×□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB T6 Gb; Ⓔx II 2 G Ex db IIB+H_2 T6 Gb;
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	EPT ATEX 16 2504X; IECEx CQM 16.0023X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass tube	Toughened glass, stands 4J impact
Ballast	Electronic ballast
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Wire guard (optional)	Powder coated carbon steel (white) or stainless steel
External reflector (optional)	Powder coated pure aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp specification	T8 fluorescent lamp (supplied with the light fittings) T5 fluorescent lamp (supplied with the light fittings) LED module (supplied with the light fittings)
Lamp power (W)	T8: 18Wx2, 36Wx2, 58Wx2 T5: 14Wx2, 28Wx2, 35Wx2 LED: 9Wx2, 18Wx2, 28Wx2
LED Colour Temperature (CCT)	5000~5700K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	T8/T5: 100-305V AC 50/60HZ; LED: 100-275V AV 50/60HZ
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67 (optional)
Ambient temperature	Ⓔx II 2 G Ex db IIB+H_2 T6 Gb for Tamb: -20℃~+55℃ Ⓔx II 2 G Ex db IIB T6 Gb and Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66 for Tamb: -60℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Cable entries	2 x M25 x 1.5 plugs
Cable gland(optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAY51-D-18 x 2G1	18×2	5.85	BAY51-D-LED 9 x 2G1	9×2	5.75	BAY51-D-14 x 2G1	14×2	5.65
BAY51-D-18 x 2G2	18×2	7.00	BAY51-D-LED 9 x 2G2	9×2	6.90	BAY51-D-14 x 2G2	14×2	6.80
BAY51-D-18 x 2X	18×2	5.52	BAY51-D-LED 9 x 2X	9×2	5.42	BAY51-D-14 x 2X	14×2	5.32
BAY51-D-18 x 2L	18×2	5.64	BAY51-D-LED 9 x 2L	9×2	5.54	BAY51-D-14 x 2L	14×2	5.44
BAY51-D-36 x 2G1	36×2	8.45	BAY51-D-LED 18 x 2G1	18×2	8.35	BAY51-D-28 x 2G1	28×2	8.25
BAY51-D-36 x 2G2	36×2	9.63	BAY51-D-LED 18 x 2G2	18×2	9.53	BAY51-D-28 x 2G2	28×2	9.43
BAY51-D-36 x 2X	36×2	8.13	BAY51-D-LED 18 x 2X	18×2	8.03	BAY51-D-28 x 2X	28×2	7.93
BAY51-D-36 x 2L	36×2	8.25	BAY51-D-LED 18 x 2L	18×2	8.15	BAY51-D-28 x 2L	28×2	8.05
BAY51-D-58 x 2G1	58×2	9.72	BAY51-D-LED 28 x 2G1	28×2	9.62	BAY51-D-35 x 2G1	35×2	9.52
BAY51-D-58 x 2G2	58×2	10.90	BAY51-D-LED 28 x 2G2	28×2	10.80	BAY51-D-35 x 2G2	35×2	10.70
BAY51-D-58 x 2X	58×2	9.40	BAY51-D-LED 28 x 2X	28×2	9.30	BAY51-D-35 x 2X	35×2	9.20
BAY51-D-58 x 2L	58×2	9.52	BAY51-D-LED 28 x 2L	28×2	9.42	BAY51-D-35 x 2L	35×2	9.32

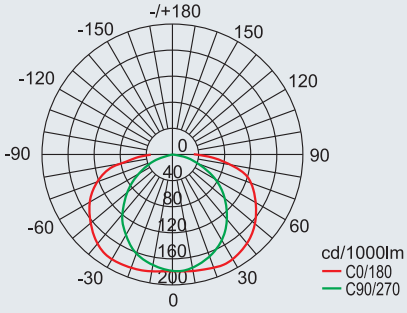
Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/27).
2. The light fittings are supplied without wire guard and external reflector. Please specify when ordering.

Light Fittings for Fluorescent Lamp
BAY51-D Series Explosion-proof Light Fittings for Fluorescent Lamp

Photometric data
Note: LED luminous flux is from the standard product of which colour temperature is 5000 to 5700K

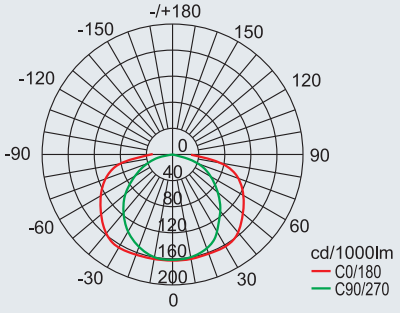
BAY51-D-18x2□(without external reflector)
BAY51-D-14x2□(without external reflector)
BAY51-D-LED 9x2□(without external reflector)

Rated luminous flux
T8: 18Wx2: 2600lm
T5: 14Wx2: 2500lm
LED: 9Wx2: 2160lm



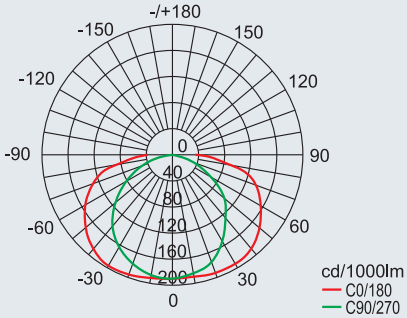
BAY51-D-18x2□(with external reflector)
BAY51-D-14x2□(with external reflector)
BAY51-D-LED 9x2□(with external reflector)

Rated luminous flux
T8: 18Wx2: 2600lm
T5: 14Wx2: 2500lm
LED: 9Wx2: 2160lm



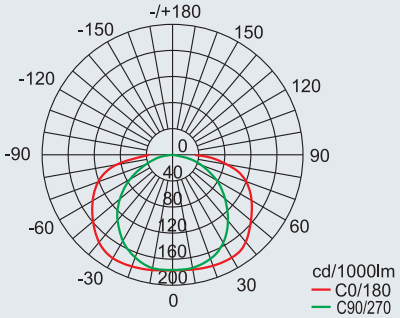
BAY51-D-36x2□(without external reflector)
BAY51-D-28x2□(without external reflector)
BAY51-D-LED 18x2□(without external reflector)

Rated luminous flux
T8: 36Wx2: 6500lm
T5: 28Wx2: 5400lm
LED: 18Wx2: 4320lm



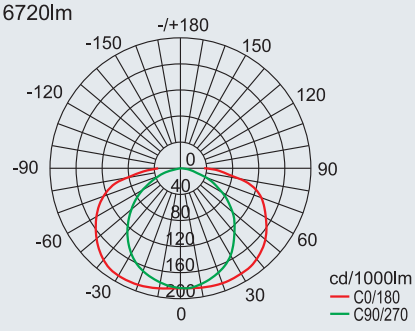
BAY51-D-36x2□(with external reflector)
BAY51-D-28x2□(with external reflector)
BAY51-D-LED 18x2□(with external reflector)

Rated luminous flux
T8: 36Wx2: 6500lm
T5: 28Wx2: 5400lm
LED: 18Wx2: 4320lm



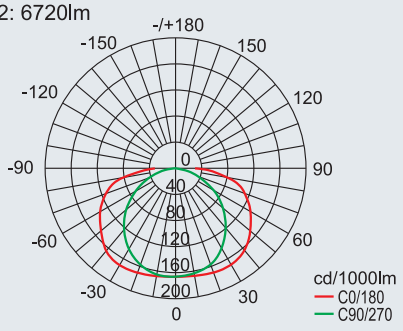
BAY51-D-58x2□(without external reflector)
BAY51-D-35x2□(without external reflector)
BAY51-D-LED 28x2□(without external reflector)

T8: 58Wx2: 10000lm
T5: 35Wx2: 6800lm
LED: 28Wx2: 6720lm



BAY51-D-58x2□(with external reflector)
BAY51-D-35x2□(with external reflector)
BAY51-D-LED 28x2□(with external reflector)

T8: 58Wx2: 10000lm
T5: 35Wx2: 6800lm
LED: 28Wx2: 6720lm

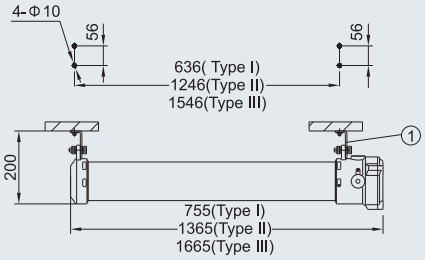


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

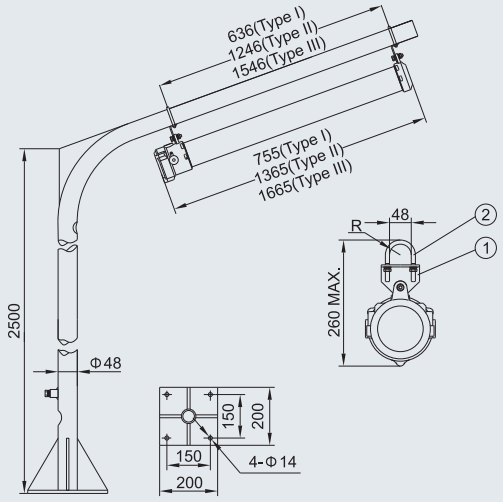
Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration

Installation reference

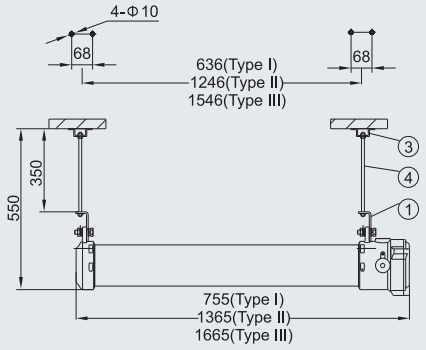
X: ceiling type



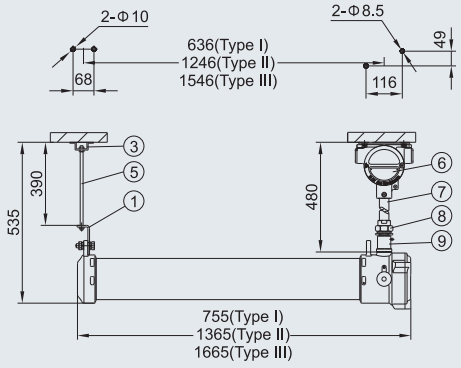
L: pole type (the pole is provided by user)



G1: pendant pole type 1



G2: pendant pole type 2



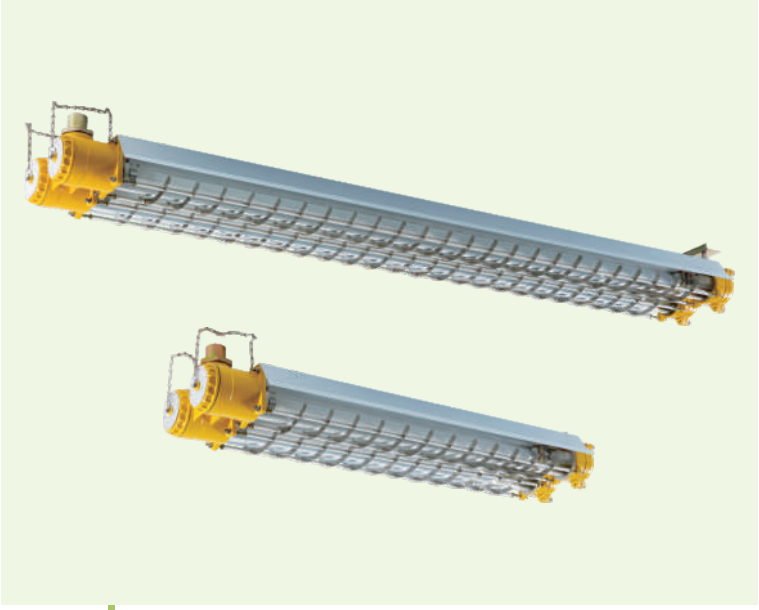
Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight(kg)
	Name	Qty	Illustration		
X: ceiling type	① Mounting plate	2	Stainless steel	51DX01	0.25
L: pole type	① Mounting plate	2	Stainless steel	51DX01	0.25
	② U type pipe clamp	2	Stainless steel	51L01	0.15
G1: pendant pole type 1	① Mounting plate	2	Stainless steel	51DX01	0.25
	③ Mounting bracket	2	Stainless steel	51S01G1	0.04
	④ M8 screw	2	Stainless steel, length: 350mm	51S01G2	0.12
G2: pendant pole type 2	① Mounting plate	2	Stainless steel	51DX01	0.25
	③ Mounting bracket	1	Stainless steel	51S01G1	0.04
	⑤ M8 screw	1	Stainless steel, length: 390mm	51S01G3	0.15
	⑥ BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑦ Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
	⑧ BGJ-III Explosion-proof connector	1	M25x1.5(F)/M25x1.5(M) Stainless steel	81D03	0.26
	⑨ Explosion-proof connector	1	M25x1.5(F)/M25x1.5(M) Stainless steel	51G201	0.22

Note: Accessories not in the table shall be supplied by user.

Light Fittings for Fluorescent Lamp
HRY52 Series Explosion-proof Light Fittings for Fluorescent Lamp



- Explosion Protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Available lamp and power
  T8 Fluorescent Lamps: 18W x 1, 36W x 1, 18W x 2, 36W x 2
  LED lamps: 9W x 1,18W x 1, 9W x 2,18W x 2
- T8 Fluorescent Lamps: Built-in electromagnetic ballast
  (Electronic ballast is optional, please specify when ordering).
- LED lamps: Built-in LED driver, wide voltage input, CC-CV
  (constant current - constant voltage) output, power factor ≥0.95.
- Enclosure in copper-free aluminium, powder coated surface,
  yellow (RAL1021).

Catalogue number logic

HRY52 - □ □ x □ □

- Mounting
  - L: pole type
  - X: ceiling type
  - D: pendant chain type (only for single-lamp light fitting)
  - G: pendant pole type
  - B: wall type (only for dual-lamp light fitting)
- Lamp number
- Lamp power (W)
- LED: only for LED lamp
- Explosion-proof light fittings for fluorescent lamp

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
HRY52-18 x 1X	18 x 1	3.90	HRY52-36 x 2X	36 x 2	12.00	HRY52-LED 9 x 2X	9 x 2	7.80
HRY52-18 x 1L	18 x 1	4.00	HRY52-36 x 2L	36 x 2	11.70	HRY52-LED 9 x 2L	9 x 2	7.50
HRY52-18 x 1D	18 x 1	4.20	HRY52-36 x 2G	36 x 2	12.50	HRY52-LED 9 x 2D	9 x 2	8.10
HRY52-18 x 1G	18 x 1	4.20	HRY52-36 x 2B	36 x 2	12.40	HRY52-LED 9 x 2G	9 x 2	8.70
HRY52-36 x 1X	36 x 1	4.80	HRY52-LED 9 x 1X	9 x 1	4.10	HRY52-LED 18 x 2X	18 x 2	12.20
HRY52-36 x 1L	36 x 1	5.00	HRY52-LED 9 x 1L	9 x 1	4.20	HRY52-LED 18 x 2L	18 x 2	11.90
HRY52-36 x 1D	36 x 1	5.10	HRY52-LED 9 x 1D	9 x 1	4.40	HRY52-LED 18 x 2D	18 x 2	12.70
HRY52-36 x 1G	36 x 1	5.10	HRY52-LED 9 x 1G	9 x 1	4.40	HRY52-LED 18 x 2G	18 x 2	12.60
HRY52-18 x 2X	18 x 2	7.60	HRY52-LED 18 x 1X	18 x 1	5.00			
HRY52-18 x 2L	18 x 2	7.30	HRY52-LED 18 x 1L	18 x 1	5.20			
HRY52-18 x 2G	18 x 2	7.90	HRY52-LED 18 x 1D	18 x 1	5.30			
HRY52-18 x 2B	18 x 2	8.50	HRY52-LED 18 x 1G	18 x 1	5.30			

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/30~31).
2. Wall type is applicable for dual-lamp light fitting only.
3. Pendant chain type is applicable for single-lamp light fitting only.

Zones 1&2; 21&22

Technical data

Explosion-proof light fittings for fluorescent lamp HRY52-□□×□□

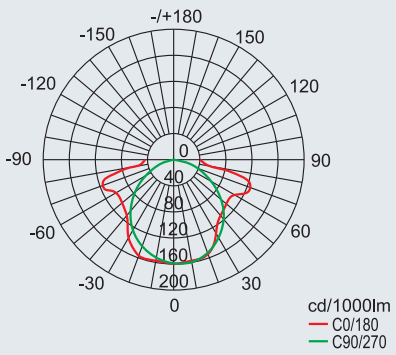
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ex tD A21 IP66 T80℃
Certificates	PCEC (China)
Conformity to standards	IEC 60079-0, IEC 60079-1, IEC 61241-0, IEC 61241-1
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Ballast	Electromagnetic ballast (Electronic ballast is optional)
External reflector	Powder coated pure aluminium
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Lamp	
Lamp specification	T8 fluorescent lamp (supplied with the light fittings) LED module (supplied with the light fittings)
Lamp power (W)	T8: 18Wx1, 36Wx1, 18Wx2, 36Wx2 LED: 9Wx1, 18Wx1, 9Wx2, 18Wx2
LED Colour Temperature (CCT)	5000~5700K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	T8: 220~240V AC 50Hz (60Hz is optional) (with electromagnetic ballast) T8: 220~240V AC 50/60Hz (with electronic ballast) LED: 110~265V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	1 x G3/4" (1 x M25 x 1.5 for pole type dual-lamp light fittings, M25 x 1.5 or M20 x 1.5 with connector on request)
Cable gland	See Mounting Accessories & Spare Parts Table
Available cable outer diameter	Φ10~Φ14 (mm)

Photometric data Note: LED luminous flux is from the standard product of which colour temperature is 5000 to 5700K

HRY52-□□x1□

Rated luminous flux

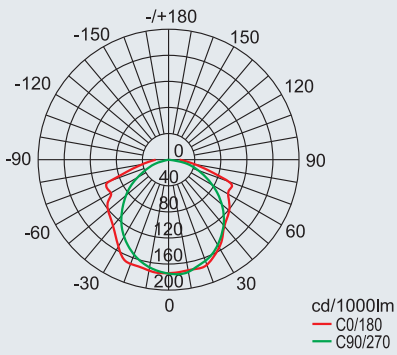
T8: 18Wx1: 1300lm
T8: 36Wx1: 3250lm
LED: 9Wx1: 1080lm
LED: 18Wx1: 2160lm



HRY52-□□x2□

Rated luminous flux

T8: 18Wx2: 2600lm
T8: 36Wx2: 6500lm
LED: 9Wx2: 2160lm
LED: 18Wx2: 4320lm



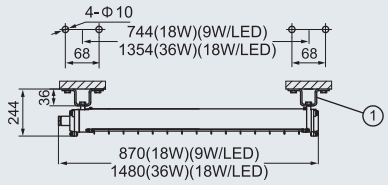
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Light Fittings for Fluorescent Lamp
HRY52 Series Explosion-proof Light Fittings for Fluorescent Lamp

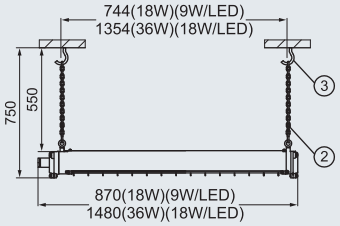
Mounting type for light fittings with single lamp tube (all dimensions in mm) - subject to alteration

Installation reference

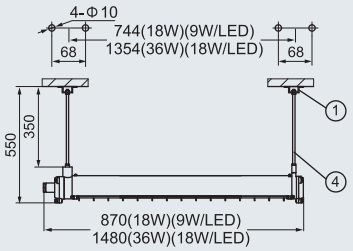
X: ceiling type



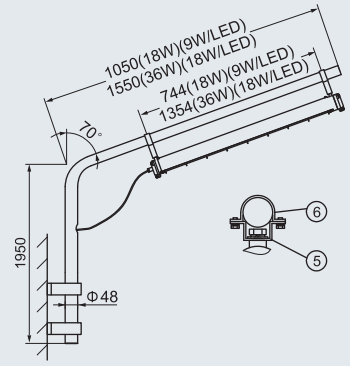
D: pendant chain type



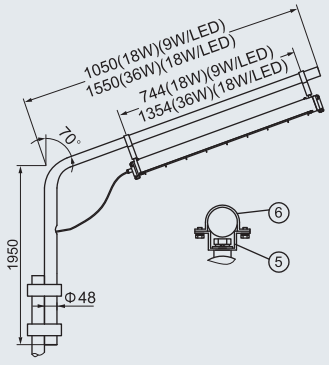
G: pendant pole type



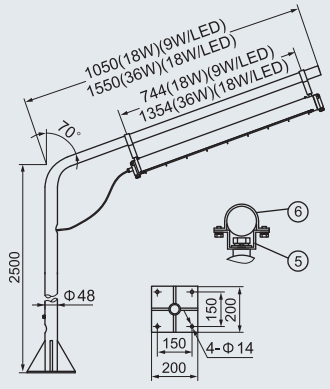
L: pole type (the pole is provided by user)



Suitable for wall pole type



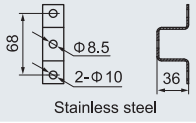
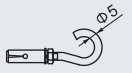
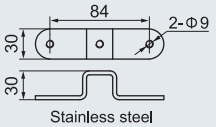
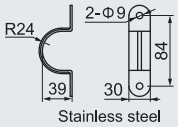
Suitable for fence pole type



Suitable for ground pole type

Mounting Accessories & Spare Parts Table (light fittings with single lamp tube)

Supplied according to the mounting type

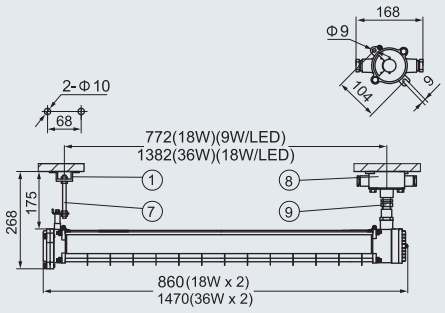
Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①.Mounting bracket	2	 Stainless steel	51S01G1	0.04
D: pendant chain type	②.Chain	2	Length: 450mm	5136016	0.08
	③.Hook expansion bolt	2		52017	0.03
G: pendant pole type	①.Mounting bracket	2	Stainless steel, same as ceiling type	51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
L: pole type	⑤.Mounting bracket	2	 Stainless steel	5136012	0.04
	⑥.G1 1/2″ Pipe clamp	2	 Stainless steel	5136014	0.04

Note: Accessories not in the table shall be supplied by user.

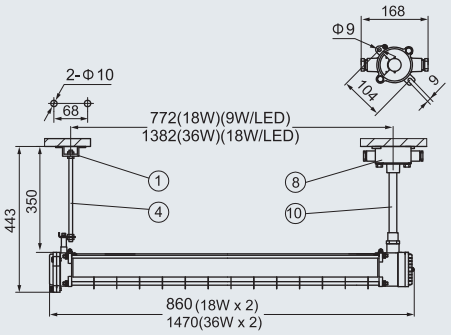
Mounting type for light fittings with dual lamp tube (all dimensions in mm) - subject to alteration

Installation reference

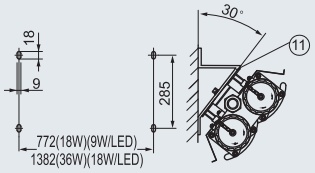
X: ceiling type



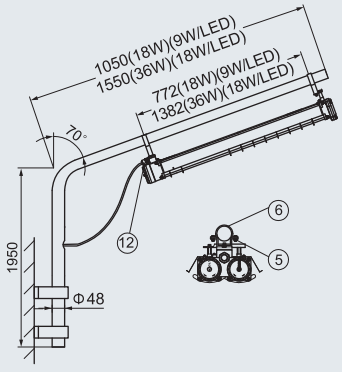
G: pendant pole type



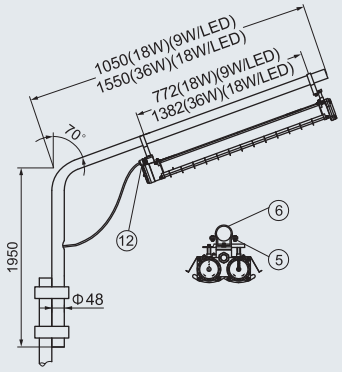
B: wall type



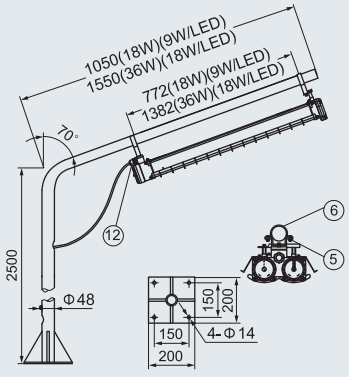
L: pole type (the pole is provided by user)



Suitable for wall pole type



Suitable for fence pole type



Suitable for ground pole type

Mounting Accessories & Spare Parts Table (light fittings with dual lamp tube)

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①.Mounting bracket	1	Stainless steel, same as light fittings with single lamp	51S01G1	0.04
	⑦.M8 Screw	1	Stainless steel, length:150mm	52D01X1	0.08
	⑧.BHD51 Explosion–proof junction box	1	G3/4"(Ex e)	52D01X2	0.40
	⑨.BGJ–III Explosion–proof connector	1	Stainless steel, G3/4"(M)/G3/4"(M)	See P7/8	0.28
G: pendant pole type	①.Mounting bracket	1	Stainless steel, same as light fittings with single lamp	51S01G1	0.04
	④.M8 Screw	1	Stainless steel, length: 350mm	51S01G2	0.12
	⑧.BHD51 Explosion–proof junction box	1	G3/4"(Ex e)	52D01X2	0.40
	⑩.Straight pipe (G3/4")	1	Length: 250mm	52D01G1	0.34
B: wall type	⑪.Wall bracket	2	Stainless steel, welded sheet steel	5236B01	0.60
L: pole type	⑤.Mounting bracket	2	Stainless steel, same as light fittings with single lamp	5136012	0.04
	⑥.G1 1/2"Pipe clamp	2	Stainless steel, same as light fittings with single lamp	5136014	0.04
	⑫.DQM–II Explosion–proof cable gland	1	M25 x 1.5	See P7/20	0.25

Note: Accessories not in the table shall be supplied by user.

Light Fittings for Fluorescent Lamp
BAY-H Series Explosion-proof Annular Light Fittings for Fluorescent Lamp



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups C, D
- Power: 21W x 1, 21W x 2.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).
- Powder coated wire guard, white.
- Toughened glass cover resistant to temperature changes.

Catalogue number logic

BAY-H □ x □

- Lamp number
- Lamp power (W)
- Explosion-proof annular light fittings for fluorescent lamp

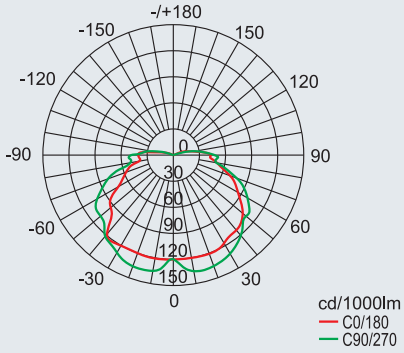
Selection table

Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY-H21 x 1	21 x 1	5.00	BAY-H21 x 2	21 x 2	5.60
Note: The light fittings are supplied with lamps.					

Photometric data

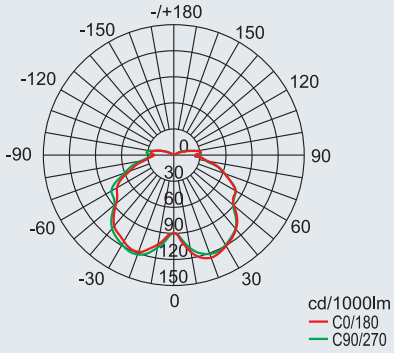
BAY-H 21x1

Rated luminous flux
21Wx1: 1000lm



BAY-H 21x2

Rated luminous flux
21Wx2: 2000lm



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

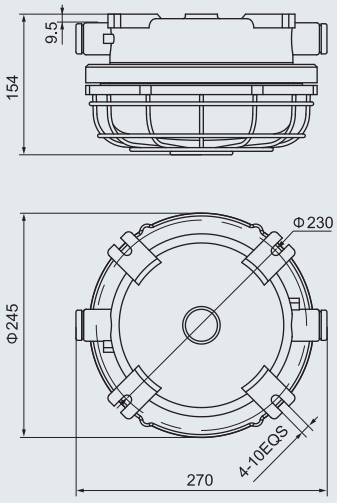
Zones 1&2; 21&22

Technical data

Explosion-proof annular light fittings for fluorescent lamp BAY-H□×□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIB T5
Dust explosion protection	Ex tD A21 IP65 T95℃
Certificates	LCIE 07 ATEX 6087; IECEx CQM 08.0003
Conformity to standards	EN 60079-0, EN 60079-1
	IEC 60079-0, IEC 60079-1, IEC 60241-0, IEC 60241-1
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Wire guard	Powder coated carbon steel (white)
Transparent cover	Toughened glass, stands 4J impact
Ballast	Electronic ballast, power factor≥0.95
Reflector (internal)	High-purity aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp specification	Biax 2D-4pin (GE Brand)
Lamp power (W)	21W x 1, 21W x 2
Lamp holder	GR-10q
Rated voltage	220~240V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	2 x M25x1.5 plugs
Cable gland(optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Dimension drawings (all dimensions in mm) - subject to alteration



Light Fittings for Fluorescent Lamp
BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp



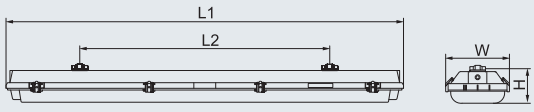
- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Six enclosure types:
  - -Single tube: three enclosure types
  - -Dual tube: three enclosure types
- Applicable lamp power:
  - Fluorescent lamps: 18W x 1, 36W x 1, 58W x 1
    18W x 2, 36W x 2, 58W x 2
  - LED lamps: 9W (10W) x 1, 18W(19W) x 1, 28W(25W) x 1
    9W(10W) x 2, 18W(19W) x 2, 28W(25W) x 2
- Built-in electronic ballast, wide voltage input, rapid starting, stable performance, power factor≥0.95.
- LED light fittings: Built-in LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95.
- Only dual tube light fittings have emergency lighting function.
- End of lamp life (EOL) rectification effect protection.

Catalogue number logic

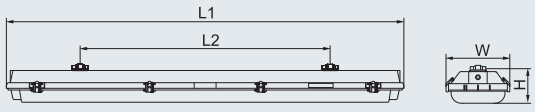
BnY81-□ □ x □ □ □

- J: Emergency lighting (optional)
- Mounting
  - X: ceiling type
  - G: pendant pole type
  - D: pendant chain type
  - B: wall type
  - L: pole type
- Lamp number
- Lamp power (W)
- LED: Only for LED lamp
- Explosion-proof light fittings for fluorescent lamp

Dimension drawings (all dimensions in mm) - subject to alteration



BnY81-□ x 1□
BnY81-LED □ x 1□



BnY81-□ x 2□□
BnY81-LED □ x 2□□

Dimensions

Type	Size (mm)				Type	Size (mm)			
	L1	L2	W	H		L1	L2	W	H
BnY81-18x1□, BnY81-LED 9x1□	655	500	120	105	BnY81-18x2□□, BnY81-LED 9x2□□	655	500	195	125
BnY81-36x1□, BnY81-LED 18x1□	1264	800	120	105	BnY81-36x2□□, BnY81-LED 18x2□□	1264	800	195	125
BnY81-58x1□, BnY81-LED 28x1□	1568	1200	100	101	BnY81-58x2□□, BnY81-LED 28x2□□	1568	1200	168	105

Zones 2; 21&22

Technical data

Explosion-proof light fittings for fluorescent lamp BnY81-□ × □□□

Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nA IIC T4 Gc
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T80℃ Db IP66
Certificates	LCIE 12 ATEX 1009X (gas); LCIE 12 ATEX 3019X (dust); IECEx CQM 12.0046X CU-TR
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
Material	
Enclosure	Polycarbonate, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, 90% light transmission, stands 7J impact, corrosion-proof
Ballast	Electronic ballast
Exposed fastener	Stainless steel
Lamp	
Lamp specification	T8 tube (supplied with the light fittings)
Lamp power (W)	18W×1 / 18W×2 36W×1 / 36W×2 58W×1 / 58W×2
Rated voltage	100~300V AC 50/60Hz
Degree of protection	IP66, IP67(optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Mounting	Ceiling type, pendant pole type, pendant chain type, wall type, pole type
Cable entries	18W, 36W: 2 x Φ26: 2 x M25 x 1.5 cable glands (DQM-I Ex e, plastic).
Available cable outer diameter	58W: 2 x Φ21: 2 x M20 x 1.5 cable glands (DQM-I Ex e, plastic) 18W, 36W: Φ9~Φ16(mm); 58W: Φ6~Φ12(mm)
Emergency data	
Emergency unit	Special emergency controller and Ni-MH battery pile, with protection against overcharge and overdischarge
Emergency power (W)	18W x 1, 36W x 1, 58W x 1
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BnY81-18 x 1X	18 x 1	1.90	BnY81-36 x 1X	36 x 1	3.10	BnY81-58 x 1X	58 x 1	2.90
BnY81-18 x 1G	18 x 1	2.10	BnY81-36 x 1G	36 x 1	3.30	BnY81-58 x 1G	58 x 1	3.10
BnY81-18 x 1D	18 x 1	2.25	BnY81-36 x 1D	36 x 1	3.45	BnY81-58 x 1D	58 x 1	3.30
BnY81-18 x 1B	18 x 1	2.25	BnY81-36 x 1B	36 x 1	3.45	BnY81-58 x 1B	58 x 1	3.30
BnY81-18 x 1L	18 x 1	1.95	BnY81-36 x 1L	36 x 1	3.15	BnY81-58 x 1L	58 x 1	3.00
BnY81-18 x 2X	18 x 2	2.40	BnY81-36 x 2X	36 x 2	3.80	BnY81-58 x 2X	58 x 2	4.00
BnY81-18 x 2G	18 x 2	2.60	BnY81-36 x 2G	36 x 2	4.00	BnY81-58 x 2G	58 x 2	4.20
BnY81-18 x 2D	18 x 2	2.75	BnY81-36 x 2D	36 x 2	4.15	BnY81-58 x 2D	58 x 2	4.35
BnY81-18 x 2B	18 x 2	2.75	BnY81-36 x 2B	36 x 2	4.15	BnY81-58 x 2B	58 x 2	4.40
BnY81-18 x 2L	18 x 2	2.45	BnY81-36 x 2L	36 x 2	3.85	BnY81-58 x 2L	58 x 2	4.05
BnY81-18 x 2XJ	18 x 2	2.45	BnY81-36 x 2XJ	36 x 2	4.80	BnY81-58 x 2XJ	58 x 2	5.05
BnY81-18 x 2GJ	18 x 2	3.65	BnY81-36 x 2GJ	36 x 2	5.05	BnY81-58 x 2GJ	58 x 2	5.25
BnY81-18 x 2DJ	18 x 2	3.90	BnY81-36 x 2DJ	36 x 2	5.15	BnY81-58 x 2DJ	58 x 2	5.40
BnY81-18 x 2BJ	18 x 2	3.95	BnY81-36 x 2BJ	36 x 2	5.15	BnY81-58 x 2BJ	58 x 2	5.45
BnY81-18 x 2LJ	18 x 2	3.60	BnY81-36 x 2LJ	36 x 2	4.90	BnY81-58 x 2LJ	58 x 2	5.10

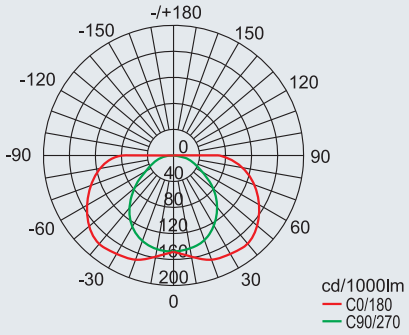
Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/39).

Light Fittings for Fluorescent Lamp
BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp

Photometric data

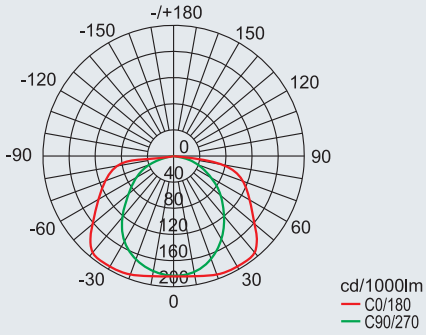
BnY81-18x1□

Rated luminous flux
18Wx1: 1300lm



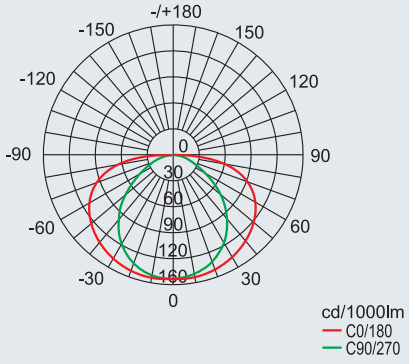
BnY81-18x2□□

Rated luminous flux
18Wx2: 2600lm



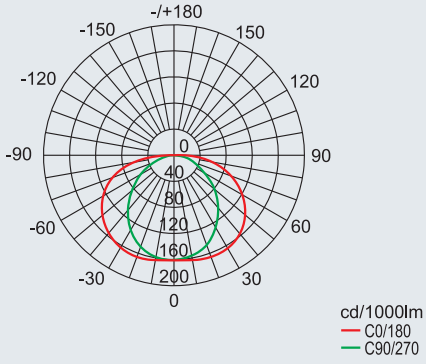
BnY81-36x1□

Rated luminous flux
36Wx1: 3250lm



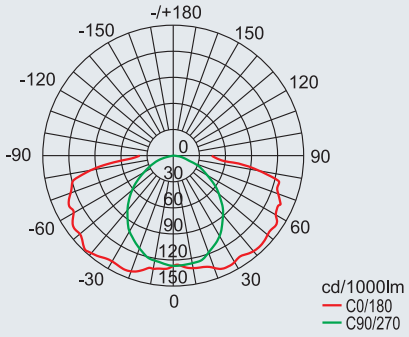
BnY81-36x2□□

Rated luminous flux
36Wx2: 6500lm



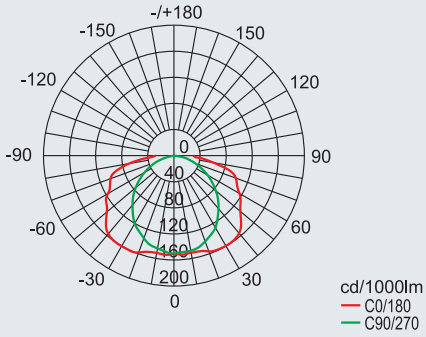
BnY81-58x1□

Rated luminous flux
58Wx1: 5000lm



BnY81-58x2□□

Rated luminous flux
58Wx2: 10000lm



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Technical data

Explosion-proof light fittings for fluorescent lamp BnY81-LED□ × □□□

Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nA IIC T4 Gc
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T80℃ Db IP66
Certificates	LCIE 12 ATEX 1009X (gas); LCIE 12 ATEX 3019X (dust); IECEx CQM 12.0046X CU-TR
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
Material	
Enclosure	Polycarbonate, stands 7J impact, corrosion-proof
Diffuser	Polycarbonate, 90% light transmission, stands 7J impact, corrosion-proof
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Lamp	
Lamp specification	LED module (supplied with the light fittings)
Lamp power (W)	9W(10W)×1, 9W(10W)×2, 18W(19W)×1, 18W(19W)×2, 28W(25W)×1, 28W(25W)×2
Colour Temperature (CCT)	5000~5700K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	110~265V AC 50/60Hz
Degree of protection	IP66, IP67(optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	Ceiling type, pendant pole type, pendant chain type, wall type, pole type
Cable entries	LED 9W, 18W: 2 x Φ26: 2 x M25x 1.5 cable glands (DQM-I Ex e, plastic).
Available cable outer diameter	LED 28W: 2 x Φ21: 2 x M20 x 1.5 cable glands (DQM-I Ex e, plastic) LED 9W, 18W: Φ9~Φ16 (mm); LED 28W: Φ6~Φ12(mm)
Emergency data	
Emergency unit	Special emergency controller and Ni-MH battery pile, with protection against overcharge and overdischarge
Emergency power (W)	9W x 1, 18W x 1, 28W x 1
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)

Selection table

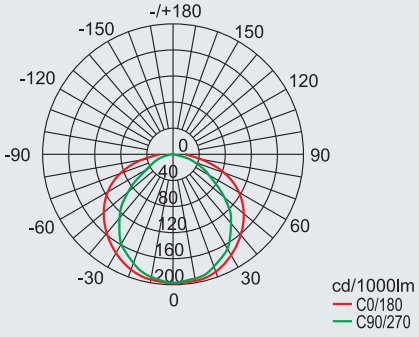
Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BnY81-LED 9 x 1X	9 x 1	1.70	BnY81-LED 18 x 1X	18 x 1	3.10	BnY81-LED 28 x 1X	28 x 1	2.85
BnY81-LED 9 x 1G	9 x 1	1.90	BnY81-LED 18 x 1G	18 x 1	3.30	BnY81-LED 28 x 1G	28 x 1	3.05
BnY81-LED 9 x 1D	9 x 1	2.05	BnY81-LED 18 x 1D	18 x 1	3.45	BnY81-LED 28 x 1D	28 x 1	3.25
BnY81-LED 9 x 1B	9 x 1	2.05	BnY81-LED 18 x 1B	18 x 1	3.45	BnY81-LED 28 x 1B	28 x 1	3.25
BnY81-LED 9 x 1L	9 x 1	1.75	BnY81-LED 18 x 1L	18 x 1	3.15	BnY81-LED 28 x 1L	28 x 1	2.95
BnY81-LED 9 x 2X	9 x 2	2.10	BnY81-LED 18 x 2X	18 x 2	3.50	BnY81-LED 28 x 2X	28 x 2	3.90
BnY81-LED 9 x 2G	9 x 2	2.30	BnY81-LED 18 x 2G	18 x 2	3.70	BnY81-LED 28 x 2G	28 x 2	4.10
BnY81-LED 9 x 2D	9 x 2	2.45	BnY81-LED 18 x 2D	18 x 2	3.85	BnY81-LED 28 x 2D	28 x 2	4.25
BnY81-LED 9 x 2B	9 x 2	2.45	BnY81-LED 18 x 2B	18 x 2	3.85	BnY81-LED 28 x 2B	28 x 2	4.30
BnY81-LED 9 x 2L	9 x 2	2.15	BnY81-LED 18 x 2L	18 x 2	3.55	BnY81-LED 28 x 2L	28 x 2	3.95
BnY81-LED 9 x 2XJ	9 x 2	2.60	BnY81-LED 18 x 2XJ	18 x 2	4.00	BnY81-LED 28 x 2XJ	28 x 2	4.40
BnY81-LED 9 x 2GJ	9 x 2	2.80	BnY81-LED 18 x 2GJ	18 x 2	4.20	BnY81-LED 28 x 2GJ	28 x 2	4.60
BnY81-LED 9 x 2DJ	9 x 2	2.95	BnY81-LED 18 x 2DJ	18 x 2	4.35	BnY81-LED 28 x 2DJ	28 x 2	4.75
BnY81-LED 9 x 2BJ	9 x 2	2.95	BnY81-LED 18 x 2BJ	18 x 2	4.35	BnY81-LED 28 x 2BJ	28 x 2	4.80
BnY81-LED 9 x 2LJ	9 x 2	2.65	BnY81-LED 18 x 2LJ	18 x 2	3.95	BnY81-LED 28 x 2LJ	28 x 2	4.45

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/39).

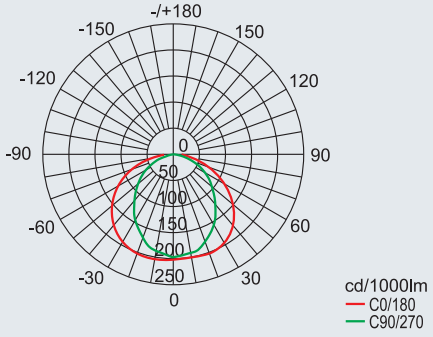
Light Fittings for Fluorescent Lamp
BnY81 Series Explosion-proof Light Fittings for Fluorescent Lamp

Photometric data
Note: LED luminous flux is from the standard product of which colour temperature is 5000 to 5700K

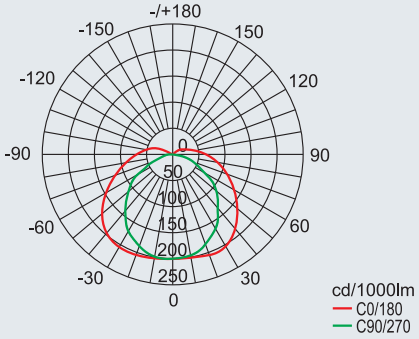
BnY81-LED 9x1□
Rated luminous flux
LED 9Wx1: 1080lm



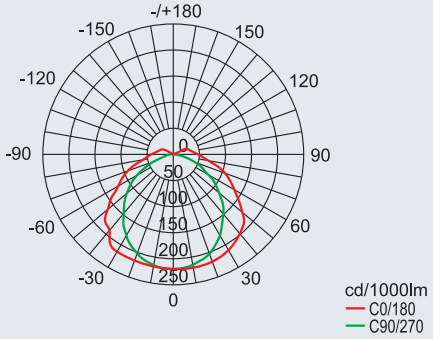
BnY81-LED 9x2□
Rated luminous flux
LED 9Wx2: 2160lm



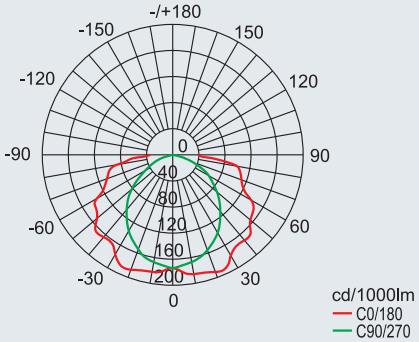
BnY81-LED 18x1□
Rated luminous flux
LED 18Wx1: 2160lm



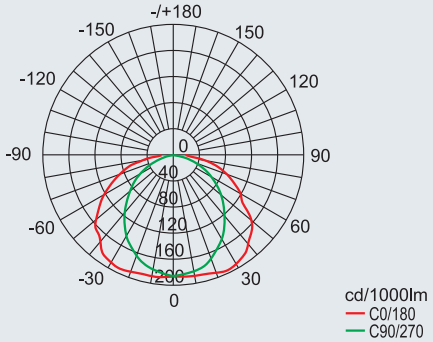
BnY81-LED 18x2□
Rated luminous flux
LED 18Wx2: 4320lm



BnY81-LED 28x1□
Rated luminous flux
LED 28Wx1: 3360lm



BnY81-LED 28x2□
Rated luminous flux
LED 28Wx2: 6720lm

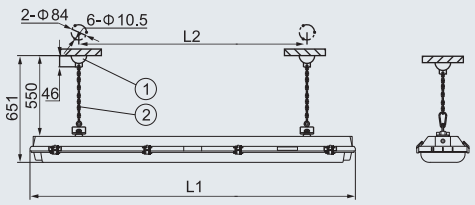


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

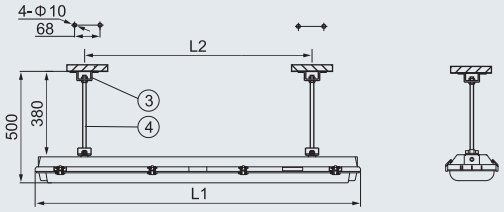
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

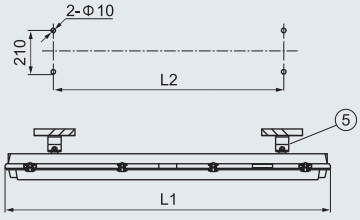
D: pendant chain type



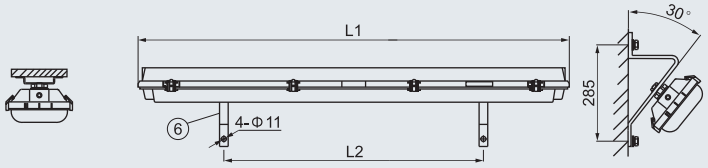
G: pendant pole type

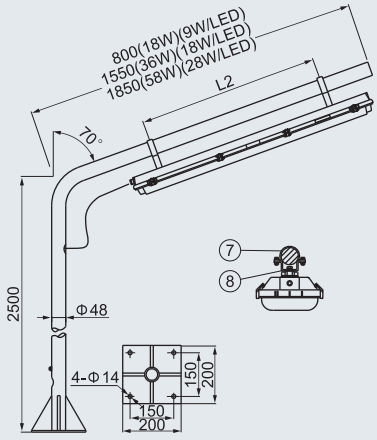


X:ceiling type

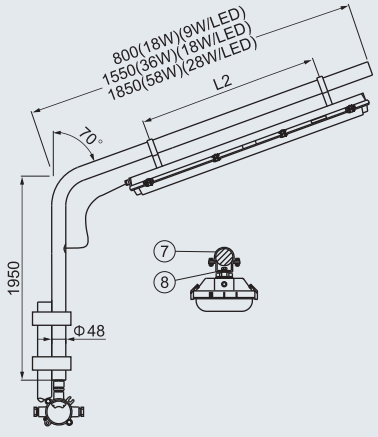


B:wall type

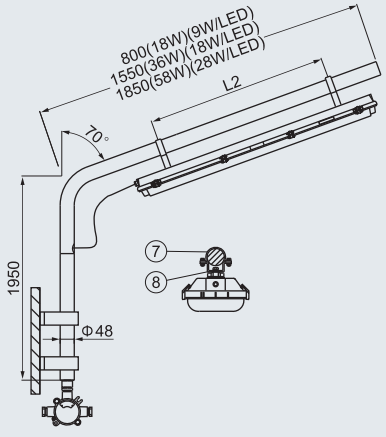




Suitable for ground pole type



Suitable forfence pole type



Suitable for wall pole type

Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: pendant chain type	①.Sucker	2	See P2/6	5136017	0.15
	②.Chain	2	Length: 450mm	5136016	0.08
G: pendant pole type	③.Mounting bracket	2	Stainless steel, see P2/6	51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
X: ceiling type	⑤.Mounting bracket	2	Stainless steel, see P2/7	5136015	0.20
B: wall type	⑥.Wall bracket	2	Stainless steel, welded sheet steel	5236B02	0.25
L: pole type	⑦.G1 1/2" Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04

Note: Accessories not in the table shall be supplied by user.

Light Fittings for Fluorescent Lamp

BAY51-G Series Explosion-proof Light Fittings for Fluorescent Lamp



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Toughened glass transparent cover, high light transmittance, resistance to high energy impact and thermal fusion.
- Enclosure is formed of stainless steel.
- Built-in electronic ballast, power factor≥0.95.
- LED driver, wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95.
- End of lamp life (EOL) rectification effect protection.
- Emergency functions is available on request.

Catalogue number logic

BAY51-G - □ □x □ □ □

- J: Emergency lighting (optional)
- Mounting
  - X: ceiling type
  - G: pendant pole type
  - D: pendant chain type
  - B: wall type
  - L: pole type
- Lamp number
- Lamp power (W)
- LED: Only for LED lamp
- Explosion-proof light fittings for fluorescent lamp

Zones 1&2; 21&22

Technical data

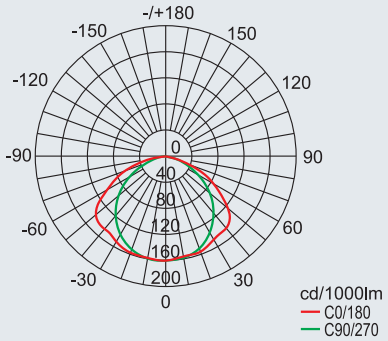
Explosion-proof light fittings for fluorescent lamp BAY51-G-□□×□□□

Explosion protection	
Gas explosion protection	Ex II 3 G Ex nA IIC T4 Gc
Dust explosion protection	Ex II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	ATEX and IECEx (applied for); PCEC (China)
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
Material	
Enclosure	Stainless steel
Glass cover	Toughened glass, stands 4J impact
Ballast	Electronic ballast, power factor≥0.95
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95
Exposed fastener	Stainless steel
Lamp	
Lamp specification	T8 fluorescent lamp (supplied with the light fittings) LED module (supplied with the light fittings)
Lamp power (W)	T8: 18Wx1, 36Wx1, 18Wx2, 36Wx2 LED: 9Wx1, 18Wx1, 9Wx2, 18Wx2
LED Colour Temperature (CCT)	5000~5700K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	T8: 100~300V AC 50/60Hz LED:110~265V AC 50/60Hz
Degree of protection	IP66
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Cable entries	2 x Φ21: 2 x M20 x 1.5 cable glands (DQM-I Ex e, plastic)
Available cable outer diameter	Φ6~Φ12 (mm)
Emergency data	
Emergency unit	Special emergency controller and Ni-MH battery pile, with protection against over-charge and overdischarge
Emergency power (W)	T8: 18W x 1, 36W x 1; LED: 9W x 1, 18W x 1
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)

Photometric data Note: LED luminous flux is from the standard product of which colour temperature is 5000 to 5700K

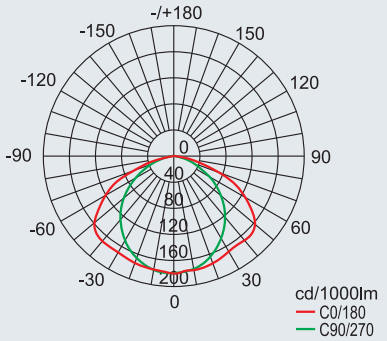
BAY51-G-□□ x 1□□

Rated luminous flux
T8: 18Wx1: 1300lm
T8: 36Wx1: 3250lm
LED: 9Wx1: 1080lm
LED: 18Wx1: 2160lm



BAY51-G-□□ x 2□□

Rated luminous flux
T8: 18Wx2: 2600lm
T8: 36Wx2: 6500lm
LED: 9Wx2: 2160lm
LED: 18Wx2: 4320lm



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

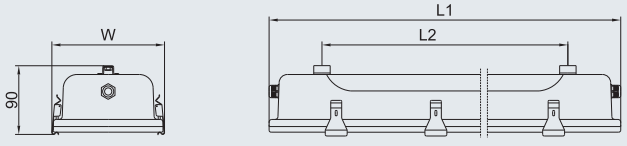
Light Fittings for Fluorescent Lamp
BAY51-G Series Explosion-proof Light Fittings for Fluorescent Lamp

Selection table

Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
BAY51-G-18 x 1X	18×1	3.25	BAY51-G-36 x 1X	36×1	5.70
BAY51-G-18 x 1G	18×1	3.45	BAY51-G-36 x 1G	36×1	5.85
BAY51-G-18 x 1D	18×1	3.60	BAY51-G-36 x 1D	36×1	6.00
BAY51-G-18 x 1B	18×1	3.60	BAY51-G-36 x 1B	36×1	6.05
BAY51-G-18 x 1L	18×1	3.30	BAY51-G-36 x 1L	36×1	5.70
BAY51-G-18 x 2X	18×2	4.40	BAY51-G-36 x 2X	36×2	7.55
BAY51-G-18 x 2G	18×2	4.60	BAY51-G-36 x 2G	36×2	7.70
BAY51-G-18 x 2D	18×2	4.70	BAY51-G-36 x 2D	36×2	7.85
BAY51-G-18 x 2B	18×2	4.75	BAY51-G-36 x 2B	36×2	7.90
BAY51-G-18 x 2L	18×2	4.40	BAY51-G-36 x 2L	36×2	7.60
BAY51-G-LED 9 x 1X	9×1	3.15	BAY51-G-LED 18 x 1X	18×1	5.60
BAY51-G-LED 9 x 1G	9×1	3.35	BAY51-G-LED 18 x 1G	18×1	5.75
BAY51-G-LED 9 x 1D	9×1	3.50	BAY51-G-LED 18 x 1D	18×1	5.90
BAY51-G-LED 9 x 1B	9×1	3.50	BAY51-G-LED 18 x 1B	18×1	5.95
BAY51-G-LED 9 x 1L	9×1	3.20	BAY51-G-LED 18 x 1L	18×1	5.60
BAY51-G-LED 9 x 2X	9×2	4.30	BAY51-G-LED 18 x 2X	18×2	7.45
BAY51-G-LED 9 x 2G	9×2	4.45	BAY51-G-LED 18 x 2G	18×2	7.65
BAY51-G-LED 9 x 2D	9×2	4.60	BAY51-G-LED 18 x 2D	18×2	7.76
BAY51-G-LED 9 x 2B	9×2	4.65	BAY51-G-LED 18 x 2B	18×2	7.80
BAY51-G-LED 9 x 2L	9×2	4.30	BAY51-G-LED 18 x 2L	18×2	7.50

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/43).

Dimension drawings (all dimensions in mm) - subject to alteration



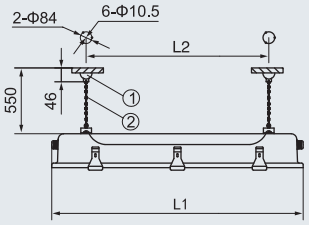
Type / Ordering code	L1	L2	W
BAY51-G-18x1□,BAY51-G-LED 9x1□	700	500	140
BAY51-G-18x2□,BAY51-G-LED 9x2□	700	500	190
BAY51-G-36x1□,BAY51-G-LED 18x1□	1300	1100	140
BAY51-G-36x2□,BAY51-G-LED 18x2□	1300	1100	190

Light Fittings for Fluorescent Lamp
BAY51-G Series Explosion-proof Light Fittings for Fluorescent Lamp

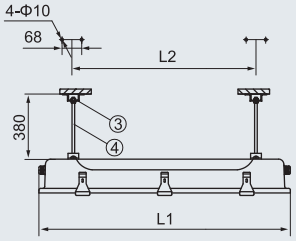
Mounting type (all dimensions in mm) - subject to alteration

Installation reference

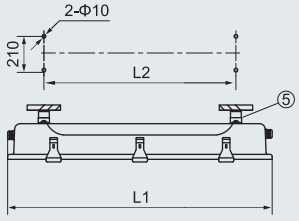
D: pendant chain type



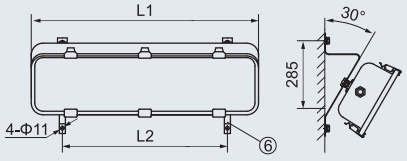
G: pendant pole type



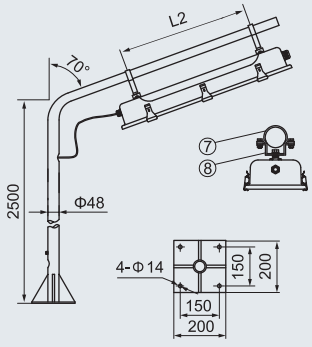
X: ceiling type



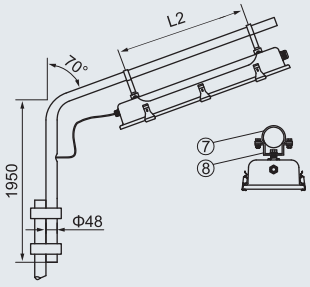
B: wall type



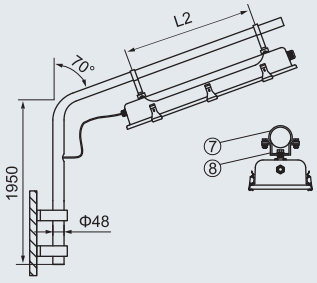
L: pole type (the pole is provided by user)



Suitable for ground pole type



Suitable for fence pole type



Suitable for wall pole type

Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: pendant chain type	①.Sucker	2	See P2/6	5136017	0.15
	②.Chain	2	Length: 450mm	5136016	0.08
G: pendant pole type	③.Mounting bracket	2	Stainless steel, see P2/6	51S01G1	0.04
	④.M8 Screw	2	Stainless steel, length: 350mm	51S01G2	0.12
X: ceiling type	⑤.Mounting bracket	2	Stainless steel, see P2/7	5136015	0.20
B: wall type	⑥.Wall bracket	2	Stainless steel, welded sheet steel	5236B02	0.25
L: pole type	⑦.G1 1/2″ Pipe clamp	2	Stainless steel, see P2/7	5136014	0.04
	⑧.Mounting bracket	2	Stainless steel, see P2/7	5136012	0.04

Note: Accessories not in the table shall be supplied by user.

Light Fittings for Fluorescent Lamp
HRY81-QT Series Explosion-proof Fluorescent Lamp for Derrick



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Polycarbonate diffuser, high transmittance, resistance to heavy impact.
- Main enclosure is extruding formed of copper-free aluminium, anodic-oxidation treatment for surface. Both ends of enclosures are die-casting formed of copper-free aluminium, powder coated surface.
- Built-in electronic ballast, power factor≥0.95.
- Special-made mounting bracket, the illumination angle can be adjusted on request.
- Emergency function is available on request.
- End of lamp life (EOL) rectification effect protection.

Catalogue number logic

HRY81－QT □ x □□□

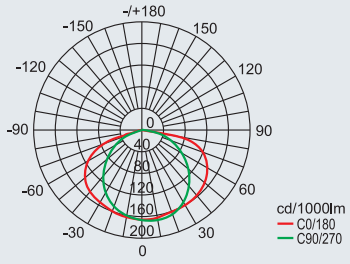
- J: Emergency lighting (optional)
- Mounting: X1: ceiling type 1; X2: ceiling type 2
- Lamp number
- Lamp power (W)
- Explosion-proof fluorescent lamp for derrick

Selection table

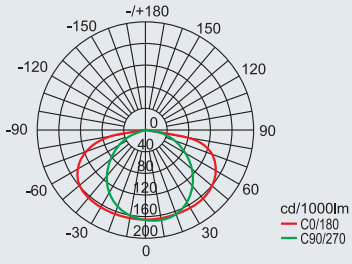
Type / Ordering code	Lamp power(W)	Weight(kg)	Type / Ordering code	Lamp power(W)	Weight(kg)
HRY81-QT18 x 2□	18 x 2	6.80	HRY81-QT18 x 2□J	18 x 2	7.50
HRY81-QT36 x 2□	36 x 2	8.50	HRY81-QT36 x 2□J	36 x 2	9.50
Note: Emergency lighting function is unavailable for routine products, please specify if needed.					

Photometric data

HRY81-QT 18W x 2
Rated luminous flux : 2600lm



HRY81-QT 36W x 2
Rated luminous flux : 6500lm



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Zones 1&2; 21&22

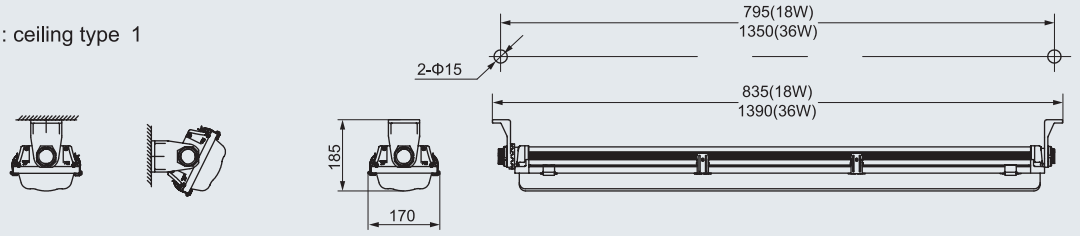
Technical data

Explosion-proof fluorescent lamp for derrick HRY81-QT36x2□□

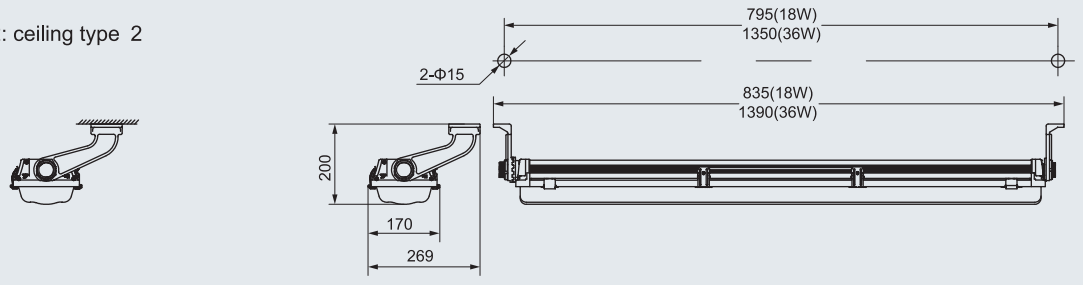
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e q IIC T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	ATEX and IECEx (applied for); PCEC (China)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-5, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-5, IEC 60079-7, IEC 60079-31
Material	
Main enclosure	Copper-free aluminium, anodic-oxidation treatment for surface.
Both ends of enclosure	Copper-free aluminium, powder coated surface
Diffuser	Polycarbonate, 90% light transmission, stands 7J impact
Ballast	Electronic ballast, power factor≥0.95
Exposed fastener	Stainless steel
Lamp	
Lamp specification	T8 tube (supplied with light fittings)
Lamp power (W)	18W x 2, 36W x 2
Emergency power (W)	18W x 1, 36W x 1
Rated voltage	96~254V AC 50/60Hz
Degree of protection	IP66
Ambient temperature	-40℃~+60℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Cable entries	1 x G3/4"
Cable gland	Supplied with seal gasket and gland nut; Cable gland on request.
Available cable outer diameter	Φ10~Φ14 (mm)
Emergency data	
Emergency starting time	0.3s
Charging time	24h
Emergency lighting time	120min (180min is optional)

Mounting type (all dimensions in mm) - subject to alteration

X1: ceiling type 1



X2: ceiling type 2



LED Light Fittings
HRD85 Series Explosion-proof LED Lightings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups A, B, C, D
- Three enclosure types:30, 70, 120
- Applicable lamp and power (max.120W)
  LED : 20W, 30W, 50W, 70W, 100W, 120W
- Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure
- Low-maintenance due to long service life of up to 50,000 operating hours.

Catalogue number logic

HRD85 - □-□ □

- Mounting
  - D: hook type
  - G: pendant pole type
  - B: wall type
  - X: ceiling type
  - L: pole type
- Lamp power (W)
- Enclosure type: 30, 70, 120
- Explosion-proof LED lightings

Selection table

Type / Ordering code	Lamp power(W)
HRD85-30-□ □	20, 30
HRD85-70-□ □	50, 70
HRD85-120-□ □	100, 120

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/48~49).
2. The product is supplied according to “Type/Ordering code” in the table with mounting accessories.

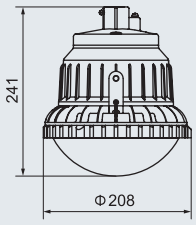
Zones 1&2; 21&22

Technical data

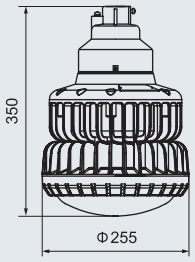
Explosion-proof LED lightings HRD85-□-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6/T5 Gb　　Ex d IIC T6/T5 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃/T95℃ Db IP66　　Ex t IIIC T80℃/T95℃ Db IP66
Certificates	DNV 12 ATEX 10807X; IECEx CQM 12.0009X; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	20W, 30W, 50W, 70W, 100W, 120W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	187~265V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	T5/T95℃ for Tamb: -40℃~+55℃; T6/T80℃ for Tamb: -40℃~+40℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	Ceiling type, pole type, pendant pole type, wall type, hook type
Cable entries	30 type: G3/4" (NPT3/4" or M25 x 1.5 with connector on request) 70 /120 type: 1 x G3/4" (pendant pole type and hook type) 4 x M25x1.5 (wall type and ceiling type); 1 x G1" (pole type)
Cable gland	See Mounting Accessories & Spare Parts Table
Available cable outer diameter	Φ10~Φ14(mm)

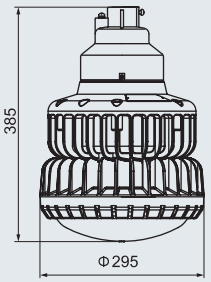
Dimension drawings (all dimensions in mm) - subject to alteration



HRD85-30



HRD85-70



HRD85-120

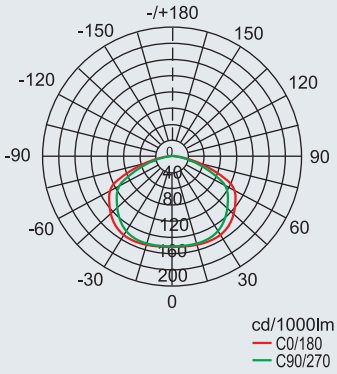
LED Light Fittings
HRD85 Series Explosion-proof LED Lightings

Photometric data Note: LED luminous flux is from the standard product of which colour temperature is 5400 to 6500K (cool white).



HRD85-30-□□

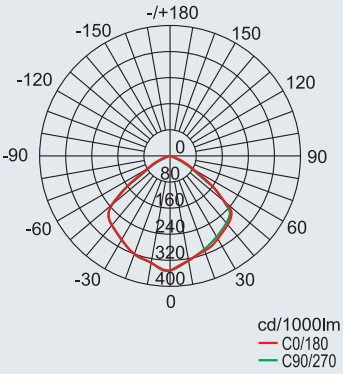
Rated luminous flux
20W LED: 1800lm
30W LED: 2700lm
Luminous efficacy: 90lm/W





HRD85-70-□□

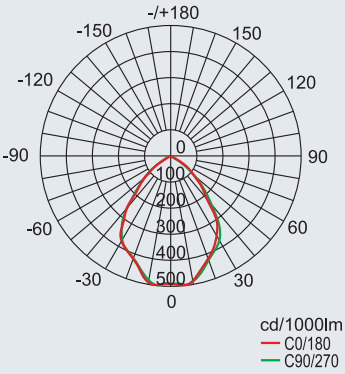
Rated luminous flux
50W LED: 4500lm
70W LED: 6300lm
Luminous efficacy: 90lm/W





HRD85-120-□□

Rated luminous flux
100W LED: 9000lm
120W LED: 10800lm
Luminous efficacy: 90lm/W

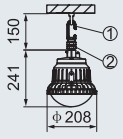


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Mounting type (for HRD85-30 type) (all dimensions in mm)-subject to alteration

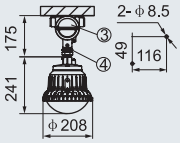
Installation reference

D: hook type



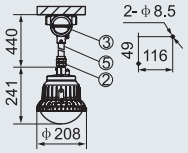
weight: 3.64kg

X: ceiling type



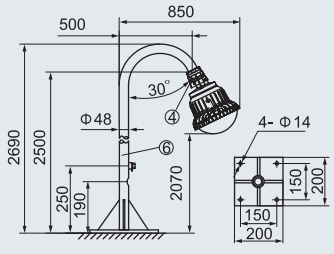
weight: 4.05kg

G: pendant pole type



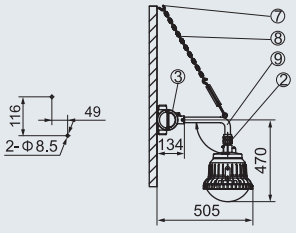
weight: 4.45kg

L: pole type



weight: 3.25kg (without pole⑥)

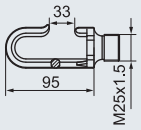
B: wall type



weight: 4.42kg

Mounting Accessories & Spare Parts Table (for HRD85-30 type)

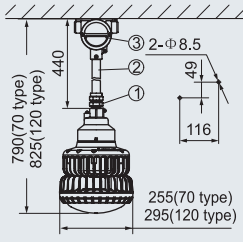
Supplied according to the mounting type

Mounting type	Accessories			Ordering code	Weight (kg)
	Name	Qty	Illustration		
D: hook type	① Hook (carbon steel)	1		61020	0.20
	② BGJ-III Explosion-proof connector	1	G3/4″(M)/M25 x 1.5(F) Carbon steel	81D02	0.26
X: ceiling type	③ BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	④ BGJ-III Explosion-proof connector	1	M25 x 1.5(M)/ G3/4″(M) Carbon steel	81X01	0.30
G: pendant pole type	② BGJ-III Explosion-proof connector	1	G3/4″(M)/M25 x 1.5(F) Carbon steel	81D02	0.26
	③ BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑤ Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
L: pole type	④ BGJ-III Explosion-proof connector	1	M25 x 1.5(M)/ G3/4″(M) Carbon steel	81X01	0.30
	⑥ Pole	1	Φ48mm	81L01	-
B: wall type	② BGJ-III Explosion-proof connector	1	G3/4″(M)/M25 x 1.5(F) Carbon steel	81D02	0.26
	③ BHD51 Explosion-proof junction box	1	Copper-free aluminium (Ex d IIC)	BHD51-F	0.80
	⑦ Hook expansion bolt	1		52017	0.03
	⑧ Chain	1	Length: 450mm	80B11	0.08
	⑨ Elbow pipe 90°(M25 x 1.5)	1	Length: 400mm	51022	0.55

Note: 1. Accessories not in the table shall be supplied by user.
2. Pole ⑥ shall not be supplied with light fittings; if required, please specify when ordering.

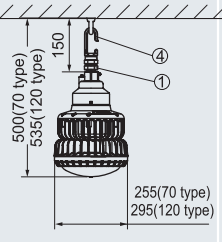
Mounting type (HRD85-70 type, HRD85-120 type) (all dimensions in mm) - subject to alteration

G: pendant pole type



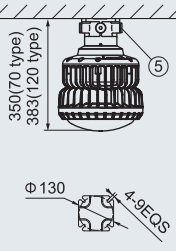
Weight: 7.80kg (70type)
8.80kg (120type)
Accessories supplied with the light fittings:
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
②.Straight pipe(M25 x 1.5), length: 300mm.
③.BHD51-F(Ex d IIC, copper-free aluminium), see P3/4.

D: hook type



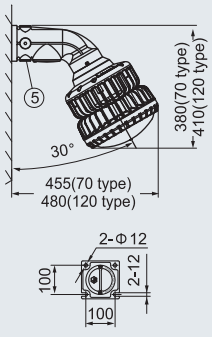
Weight: 6.50kg (70type)
7.50kg (120type)
Accessories supplied with the light fittings:
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
④.Hook (carbon steel).

X: ceiling type



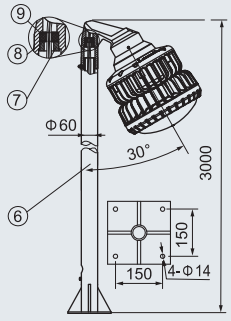
Weight: 7.40kg (70type)
8.40kg (120type)
Accessories supplied with the light fittings:
⑤.4 x M25 x1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
Please see P7/20~29.

B: wall type



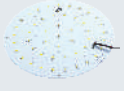
Weight: 9.20kg (70type)
10.20kg (120type)
Accessories supplied with the light fittings:
⑤.4 x M25 x1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
Please see P7/20~29.

L: pole type



Weight: 7.70kg (70type)
8.70kg (120type)
Accessories supplied with the light fittings:
⑥.Pole shall be provided by user.
⑦.Locking bolt, 1 No.
⑧.Washer, 2 Nos.
⑨.Seal ring, 1 No.

Accessories

Picture	Name	Ordering code	Weight (kg)
	LED driver 50W	85003	0.80
	LED driver 70W	85004	0.80
	LED driver 100W	85005	1.00
	LED driver 120W	85006	1.00
	LED lamp module 50W	85009	0.15
	LED lamp module 70W	85010	0.15
	LED lamp module 100W	85011	0.27
	LED lamp module 120W	85012	0.27
	70Type transparent cover with fixing-ring	85014	1.84
	120Type transparent cover with fixing-ring	85015	2.90

LED Light Fittings
HRD91-LED Series Explosion-proof LED Lightings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups A, B, C, D
- Two enclosure types:50, 100
- Applicable lamp and power (max.100W)
  LED : 30W, 50W, 70W, 100W
- Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure
- Low-maintenance due to long service life of up to 100,000 operating hours.

Catalogue number logic

HRD91 - LED □-□ □

- Mounting
  - D: hook type
  - G: pendant pole type
  - B: wall type
  - X: ceiling type
  - L: pole type
- Lamp power (W)
- Enclosure type: 50, 100
- Explosion-proof LED lightings

Selection table

Type / Ordering code	Lamp power(W)
HRD91-LED-50-□ □	30, 50
HRD91-LED-100-□ □	70, 100

Note: 1. Products above include all the mounting accessories listed in Mounting Accessories & Spare Parts Table (see P2/53).
2. The product is supplied according to “Type/Ordering code” in the table with mounting accessories.

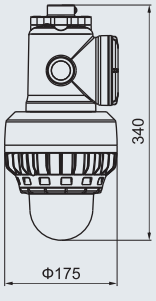
Zones 1&2; 21&22

Technical data

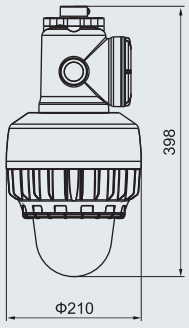
Explosion-proof LED lightings HRD91-LED-□-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db op is IIC T6/T5 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb op is IIIC T80℃/T95℃ Db IP66
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	30W, 50W, 70W, 100W
Colour Temperature (CCT)	5000 ± 300K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	220~240V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	T6/T80℃ for Tamb: -40℃~+45℃ T5/T95℃ for Tamb: -40℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	Ceiling type, pole type, pendant pole type, wall type, hook type
Cable entries	M25 x 1.5
Cable gland	See Mounting Accessories & Spare Parts Table
Available cable outer diameter	Φ10~Φ14(mm)

Dimension drawings (all dimensions in mm) - subject to alteration



HRD91-LED-50



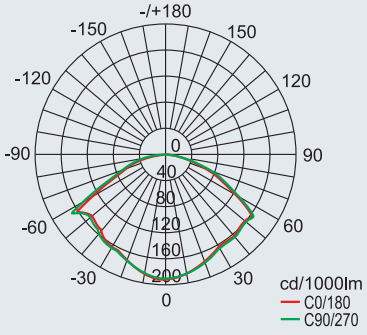
HRD91-LED-100

LED Light Fittings
HRD91-LED Series Explosion-proof LED Lightings

Photometric data
Note: LED luminous flux is from the standard product of which colour temperature is 5000 ± 300K

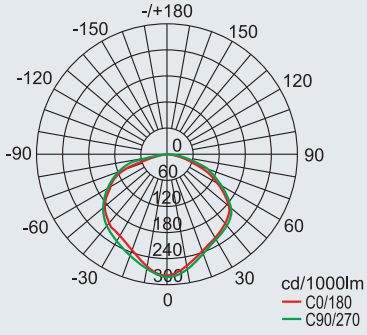


HRD91-LED-50-30-□
Rated luminous flux
30W LED: 3000lm
Luminous efficacy: 100lm/W

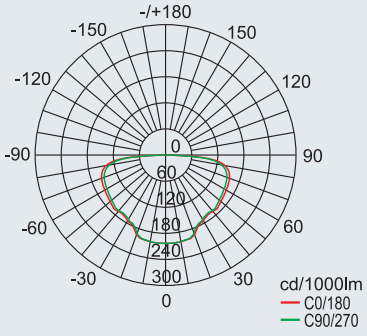




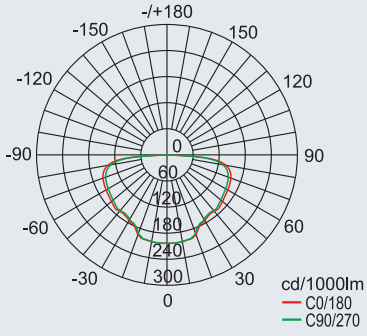
HRD91-LED-100-70-□
Rated luminous flux
70W LED: 7000lm
Luminous efficacy: 100lm/W



HRD91-LED-50-50-□
Rated luminous flux
50W LED: 5000lm
Luminous efficacy: 100lm/W



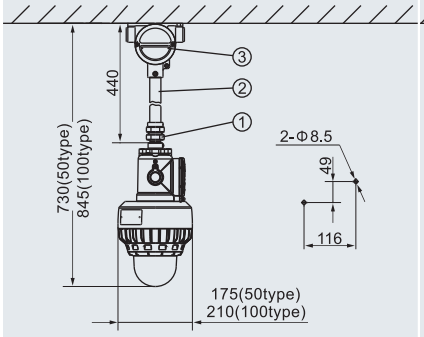
HRD91-LED-100-100-□
Rated luminous flux
100W LED: 10000lm
Luminous efficacy: 100lm/W



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

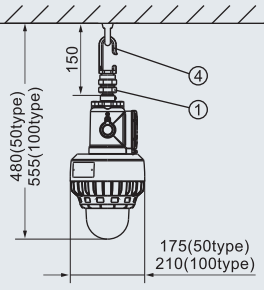
Mounting type (all dimensions in mm) - subject to alteration

G: pendant pole type



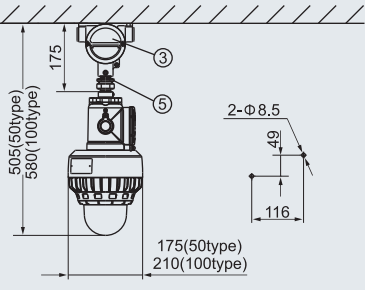
Weight: 4.05kg (50type)
6.00kg (100type)
Accessories supplied with the light fittings:
①.BGJ-III Explosion-proof connectorG3/4"(M)/ M25×1.5(F),carbon steel.
②.Straight pipe(M25 x 1.5),length: 300mm.
③.BHD51-F(Ex d IIC, copper-free aluminium), see P3/4.

D: hook type



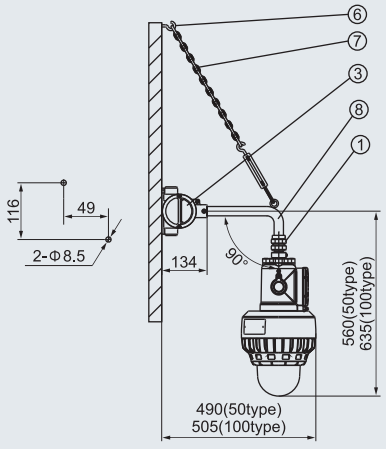
Weight: 3.05kg (50type)
5.00kg (100type)
Accessories supplied with the light fittings:
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5(F), carbon steel.
④.Hook (carbon steel).

X: ceiling type



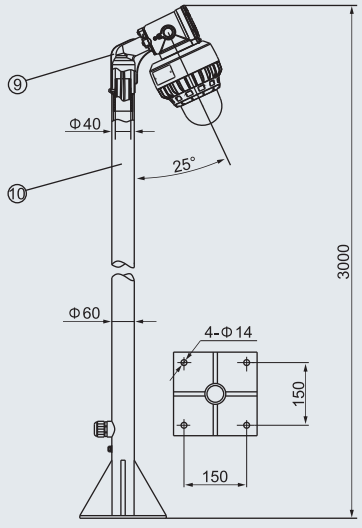
Weight: 3.60kg (50type)
5.60kg (100type)
Accessories supplied with the light fittings:
③.BHD51-F(Ex d IIC, copper-free aluminium), see P3/4.
⑤.BGJ-III Explosion-proof connector,M25×1.5 (M)/G3/4"(M),carbon steel.

B: wall type



Weight: 4.30kg (50type)
6.30kg (100type)
Accessories supplied with the light fittings:
①.BGJ-III Explosion-proof connectorG3/4"(M)/M25×1.5(F),carbon steel.
③.BHD51-F(Ex d IIC, copper-free aluminium), see P3/4.
⑥.Hook expansion bolt
⑦.Chain(450 mm)
⑧.Elbow pipe 90°(M25×1.5)(400 mm)

L: pole type



Weight: 3.05kg (50type)
5.05kg (100type)
Accessories supplied with thelight fittings:
⑨.Pole type connector
⑩. Pole (shall be provided by user)

LED Light Fittings
HRD95 Series Explosion-proof LED Lightings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Three enclosure types: 90, 160, 240
- Applicable lamp and power (max.240W)
  LED: 60W, 90W, 120W, 160W, 200W, 240W
- Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- Two types of light distribution: spotlight and floodlight, which can be selected on request.
- Low-maintenance due to long service life of up to 100,000 operating hours.

Catalogue number logic

HRD95 - □-□ □

- Mounting
  - K: bracket type
  - G: pendant pole type
  - D: hook type
  - L: pole type
  - B: wall type
  - X: ceiling type
- Lamp power (W)
- Enclosure type: 90, 160, 240
- Explosion-proof LED lightings

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
HRD95-90-60K	60	9.80	HRD95-90-60D	60	9.50	HRD95-160-120B	120	13.50
HRD95-90-90K	90	9.80	HRD95-90-90D	90	9.50	HRD95-160-160B	160	13.50
HRD95-160-120K	120	12.70	HRD95-160-120D	120	11.75	HRD95-240-200B	200	26.60
HRD95-160-160K	160	12.70	HRD95-160-160D	160	11.75	HRD95-240-240B	240	26.60
HRD95-240-200K	200	27.50	HRD95-90-60L	60	9.30	HRD95-90-60X	60	9.20
HRD95-240-240K	240	27.50	HRD95-90-90L	90	9.30	HRD95-90-90X	90	9.20
HRD95-90-60G	60	10.75	HRD95-160-120L	120	12.00	HRD95-160-120X	120	11.75
HRD95-90-90G	90	10.75	HRD95-160-160L	160	12.00	HRD95-160-160X	160	11.75
HRD95-160-120G	120	13.05	HRD95-90-60B	60	11.00	HRD95-240-200X	200	24.80
HRD95-160-160G	160	13.05	HRD95-90-90B	90	11.00	HRD95-240-240X	240	24.80

Note: 1. The product is supplied according to “Type/Ordering code” in the table with mounting accessories.
2. Two types of light distribution: spotlight and floodlight. The light fittings are supplied without lens. Lighting distribution is of floodlight. If required, please specify when ordering.

Zones 1&2; 21&22

Technical data

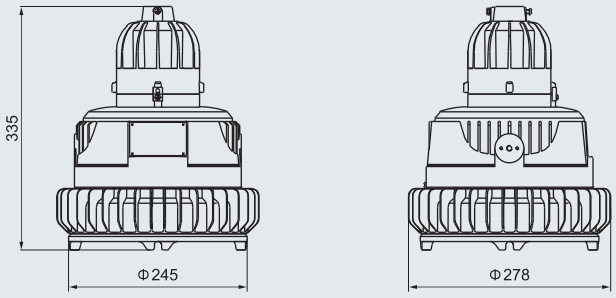
Explosion-proof LED lightings HRD95-90-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db op is IIC T□[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb op is IIIC T□[1] Db Ip66
	[1] See Selection Table
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	60W, 90W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~277V AC 50/60Hz, 130~250V DC
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	bracket type, hook type, pole type, pendant pole type, wall type, ceiling type
Cable entries	1 x M25 x 1.5 (hook type, pole type, pendant pole type) 2 x M25 x 1.5 (bracket type) 4 x M25 x 1.5 (wall type, ceiling type)
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table

Rated power(W)	Temperature classification			
	-40℃≤Ta≤+40℃		-40℃≤Ta≤+55℃	
	Gas	Dust	Gas	Dust
60	76℃ (T6)	71℃	91℃ (T5)	86℃
90	87℃ (T5)	82℃	102℃ (T4)	97℃

Dimension drawings (all dimensions in mm) - subject to alteration



Technical data

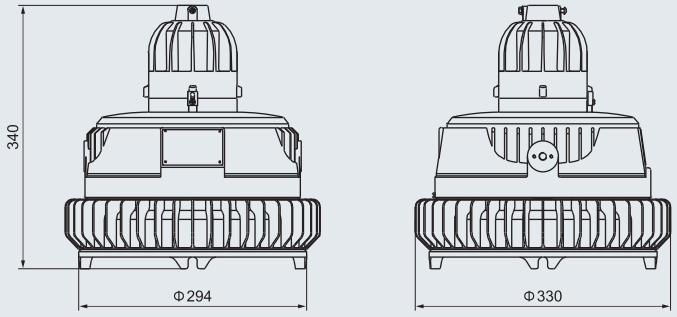
Explosion-proof LED lightings HRD95-160-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db op is IIC T□[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb op is IIIC T□[1] Db Ip66
	[1] See Selection Table
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	120W, 160W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~277V AC 50/60Hz, 130~250V DC
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	bracket type, hook type, pole type, pendant pole type, wall type, ceiling type
Cable entries	1 x M25 x 1.5 (hook type, pole type, pendant pole type) 2 x M25 x 1.5 (bracket type) 4 x M25 x 1.5 (wall type, ceiling type)
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table

Rated power(W)	Temperature classification			
	-40℃≤Ta≤+40℃		-40℃≤Ta≤+55℃	
	Gas	Dust	Gas	Dust
120	80℃ (T6)	75℃	95℃ (T5)	90℃
160	98℃ (T4)	93℃	113℃ (T4)	108℃

Dimension drawings (all dimensions in mm) - subject to alteration



Technical data

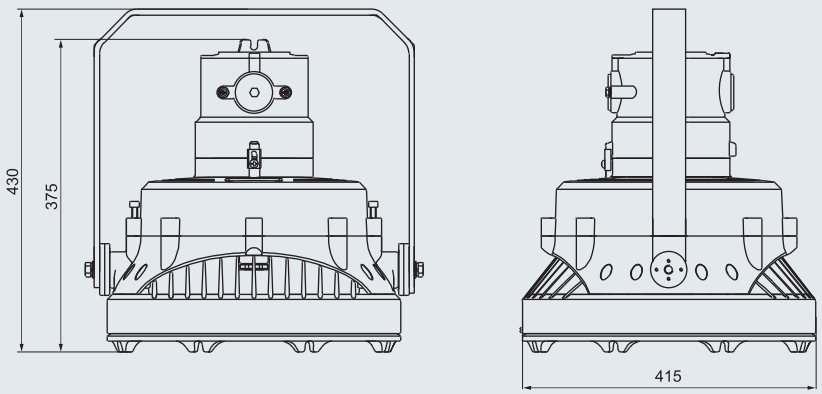
Explosion-proof LED lightings HRD95-240-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db op is IIC T□[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb op is IIIC T□[1] Db Ip66
	[1] See Selection Table
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	200W, 240W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~277V AC 50/60Hz, 130~250V DC
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	bracket type, wall type, ceiling type
Cable entries	2 x M25 x 1.5 (bracket type) 4 x M25 x 1.5 (wall type, ceiling type)
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table

Rated power(W)	Temperature classification			
	-40℃≤Ta≤+40℃		-40℃≤Ta≤+55℃	
	Gas	Dust	Gas	Dust
200	86℃ (T5)	81℃	101℃ (T4)	96℃
240	104℃ (T4)	99℃	119℃ (T4)	114℃

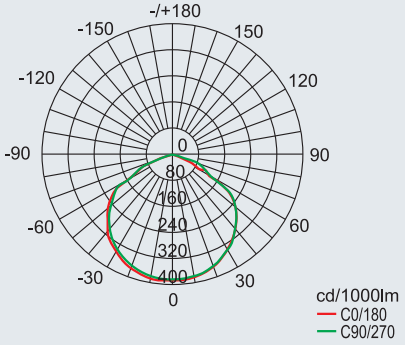
Dimension drawings (all dimensions in mm) - subject to alteration



Photometric data Note: LED luminous flux is from the standard product of which colour temperature is 5400 to 6500K (cool white).

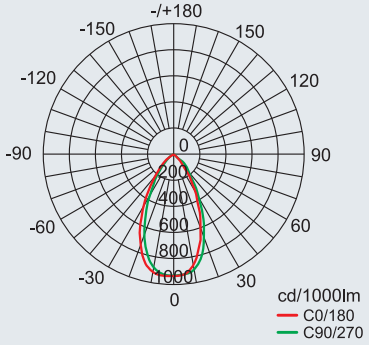
HRD95-90-□□(Standard products without lens)

Rated luminous flux
60W LED: 6730lm
90W LED: 10120lm
Luminous efficacy: 112lm/W



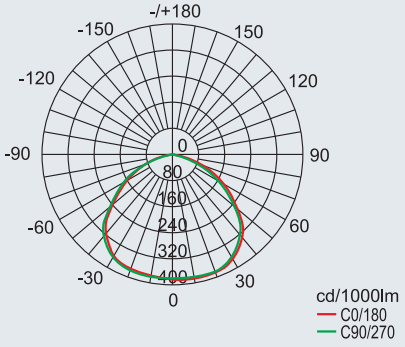
HRD95-90-□□(With 60° lens)

Rated luminous flux
60W LED: 6730lm
90W LED: 10120lm
Luminous efficacy: 112lm/W
Note: Lens of 40° and 25° can be provided on request.



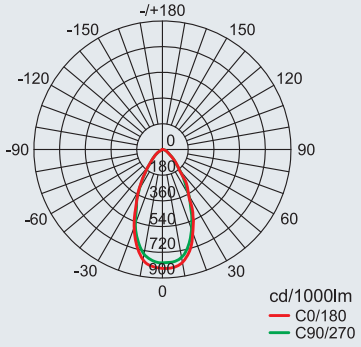
HRD95-160-□□(Standard products without lens)

Rated luminous flux
120W LED: 13420lm
160W LED: 17930lm
Luminous efficacy: 112lm/W



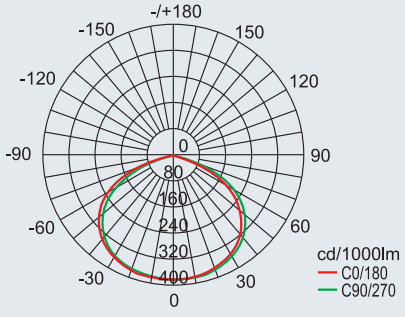
HRD95-160-□□(With 60° lens)

Rated luminous flux
120W LED: 13420lm
160W LED: 17930lm
Luminous efficacy: 112lm/W
Note: Lens of 40° and 25° can be provided on request.



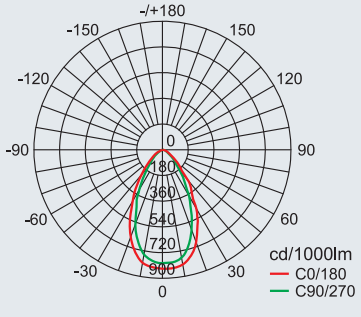
HRD95-240-□□(Standard products without lens)

Rated luminous flux
200W LED: 24000lm
240W LED: 28800lm
Luminous efficacy: 120lm/W



HRD95-240-□□(With 60° lens)

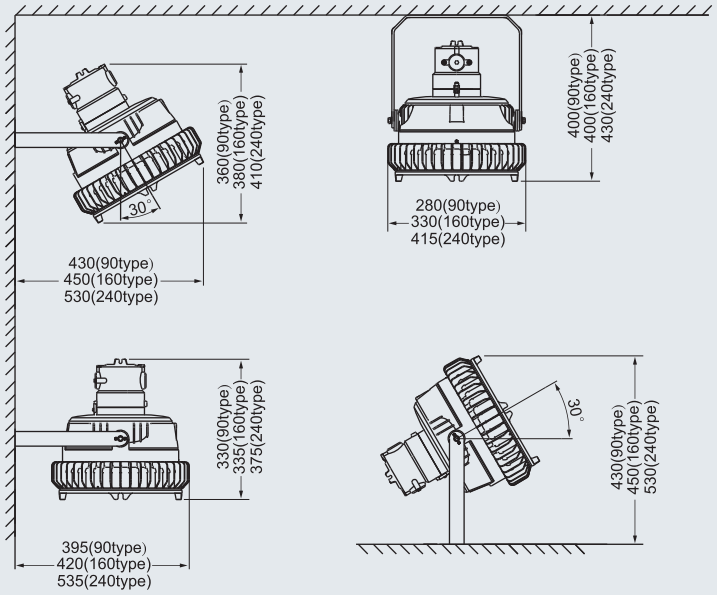
Rated luminous flux
200W LED: 24000lm
240W LED: 28800lm
Luminous efficacy: 120lm/W
Note: Lens of 40° and 25° can be provided on request.

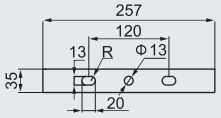


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

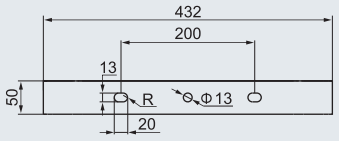
Mounting type (all dimensions in mm) - subject to alteration

K: bracket type





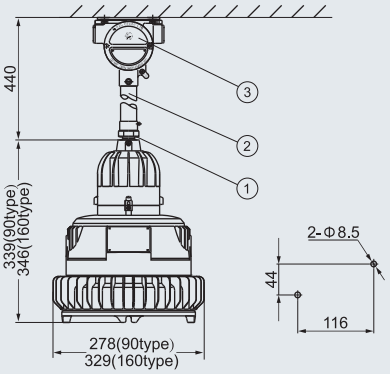
Bracket mounting dimension of 90type, 160type



Bracket mounting dimension of 240type

G:pendant pole type

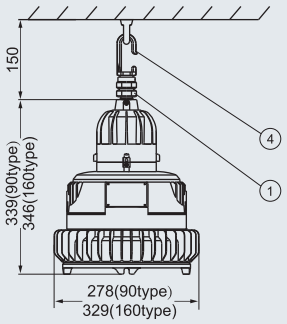
Note: pendant pole type is unavailable to 240 type.



Accessories supplied with the light fittings:
①.BGJ-III explosion-proofconnectorM25×1.5(M)/M25×1.5(F), carbon steel.
②.Straight pipe(M25 x 1.5),length: 300mm.
③.BHD51-F(for 90 type and 160 type:copper-free aluminium), see P3/4.

D: hook type

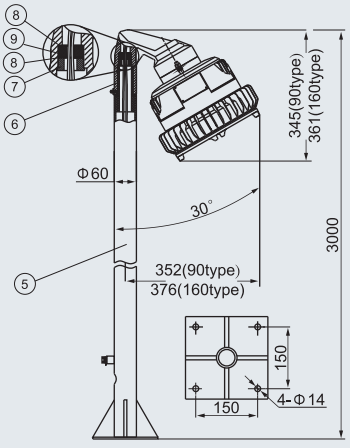
Note: hook type is unavailable to 240 type.



Accessories supplied with the light fittings:
①.BGJ-III explosion-proofconnectorM25×1.5 (M)/M25×1.5(F),carbon steel.
④.Hook (carbon steel).

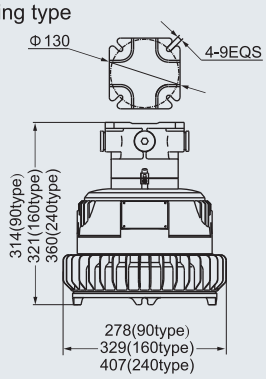
L: pole type

Note: pole type is unavailable to 240 type.

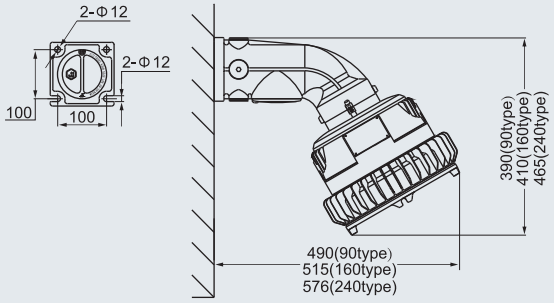


Accessories supplied with thelight fittings:
⑤. Pole (shall be provided by user).
⑥. Outlet sleeve.
⑦. Locking bolt.
⑧. Washer.
⑨. Sealing ring

X: ceilling type



B: wall type



LED Light Fittings
HRD95-J Series Explosion-proof Emergency LED Light Fittings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- Emergency device with battery pack, charging automatically; when power supply is cut off, the emergency device starts to work; with overcharge and overdischarge protection.
- Toughened glass cover resistant to temperature changes.
- Low-maintenance due to long service life of up to 100,000 operating hours.

Catalogue number logic

HRD95-J □-□

- Mounting | K: bracket type
- Lamp power (W)
- Explosion-proof emergency LED light fittings

WAROM

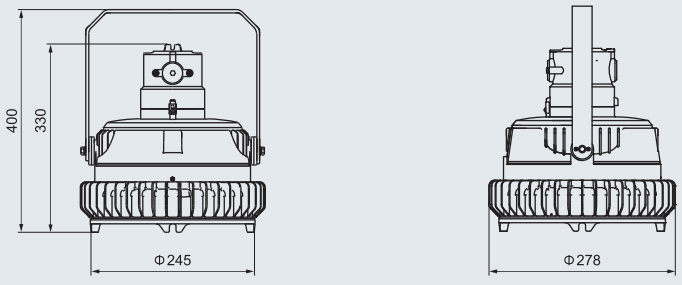
Zones 1&2; 21&22

Technical data

Explosion-proof emergency LED light fittings HRD95-J-30-□

Explosion protection	
Gas explosion protection	Ⅱ 2 G Ex db op is ⅡC T6 Gb
Dust explosion protection	Ⅱ 2 D Ex tb op is ⅢC T80℃ Db IP66
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Emergency controller	Special emergency controller and battery pack, with protection against over-charge and overdischarge
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	30W
Emergency power (W)	20W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~277V AC 50/60Hz
Charging time	24h
Emergency duration	90min(120min is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-40℃~+55℃
Terminal	5 x 1.5~4mm^2
Mounting	bracket type
Cable entries	2 x M25 x 1.5 (bracket type)
Cable gland	DQM-Ⅱ (Ex d) or DQM-Ⅲ (Ex d) is recommended. Please see P7/20~29
Weight	9.95kg

Dimension drawings (all dimensions in mm) - subject to alteration



HRD95-J-30-□

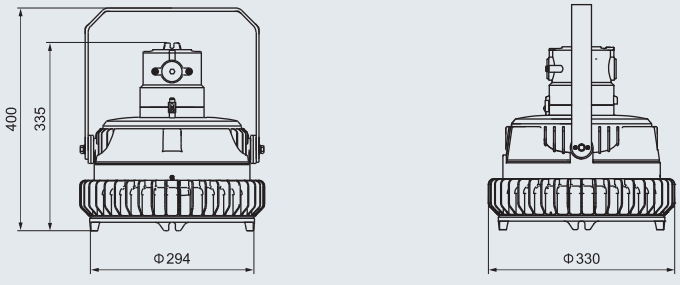
LED Light Fittings
HRD95-J Series Explosion-proof Emergency LED Light Fittings

Technical data

Explosion-proof emergency LED light fittings HRD95-J-60-□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db op is IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb op is IIIC T80℃ Db IP66
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-28, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Emergency controller	Special emergency controller and battery pack, with protection against over-charge and overdischarge
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	60W
Emergency power (W)	40W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~277V AC 50/60Hz
Charging time	24h
Emergency duration	90min
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-40℃~+55℃
Terminal	5 x 1.5~4mm^2
Mounting	bracket type
Cable entries	2 x M25 x 1.5 (bracket type)
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Weight	12.85kg

Dimension drawings (all dimensions in mm) - subject to alteration

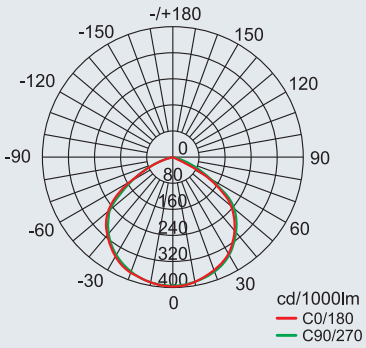


HRD95-J-60-□

Photometric data Note: LED luminous flux is from the standard product of which colour temperature is 5400 to 6500K (cool white).

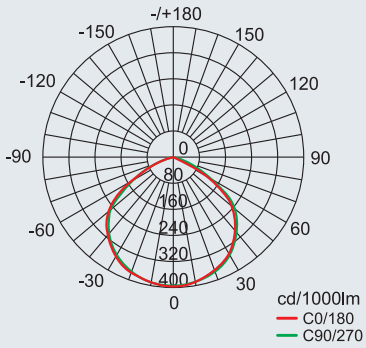
HRD95-J-30-□(Standard products without lens)

Rated luminous flux
30W LED: 3000lm
Luminous efficacy: 100lm/W



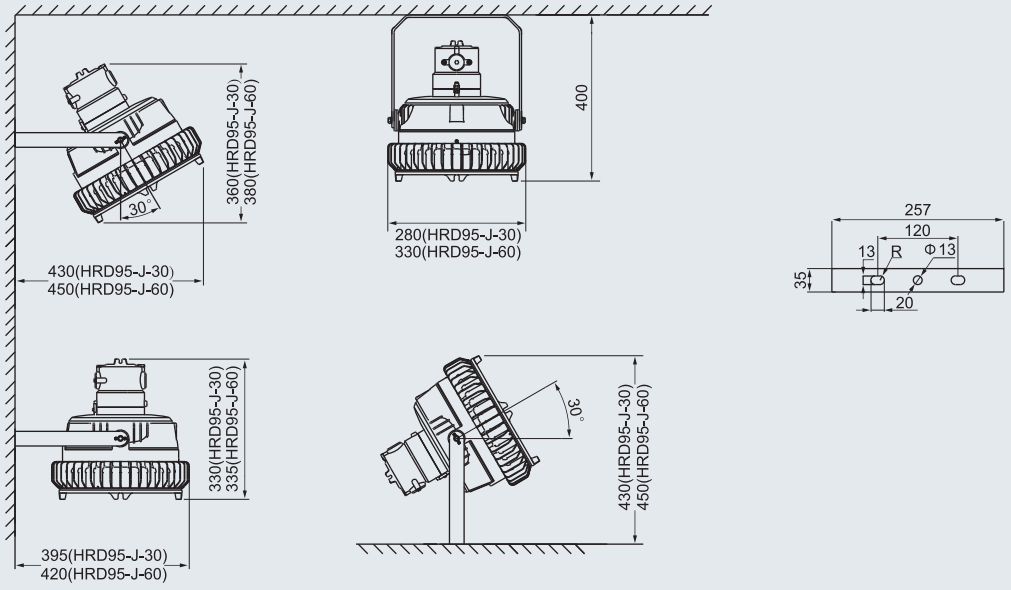
HRD95-J-60-□(Standard products without lens)

Rated luminous flux
60W LED: 6000lm
Luminous efficacy: 100lm/W



Mounting type (all dimensions in mm) - subject to alteration

K: bracket type



LED Light Fittings
BDD95 Series Explosion-proof LED Lightings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Two enclosure types:90, 160
- Applicable lamp and power (max.160W)
  LED: 60W, 90W, 120W, 160W
- Isolated LED lamp compartment, CC-CV (constant current - constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- New COB technology, large power and white light LED array, power of single LED can reach 20W~40W, high lighting efficiency, long service life.
- Two types of light distribution: spotlight and floodlight, which can be selected on request.
- 160 type lightings adopt light fitting integrated two lamps, the power of whole machine is of 2x120W,2X160W
- Low-maintenance due to long service life of up to 100,000 operating hours.

Catalogue number logic

BDD95 - □-□ □

- Mounting: D: hook type; K: bracket type; L: pole type
- Lamp power (W)
- Enclosure type: 90, 160
- Explosion-proof LED lightings

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BDD95-90-60K	60	8.50	BDD95-90-60D	60	8.10	BDD95-90-60L	60	8.10
BDD95-90-90K	90	8.50	BDD95-90-90D	90	8.10	BDD95-90-90L	90	8.10
BDD95-160-120K	120	12.20	BDD95-160-120D	120	11.60	BDD95-160-120L	120	11.70
BDD95-160-160K	160	12.20	BDD95-160-160D	160	11.60	BDD95-160-160L	160	11.70

Note: 1. The product is supplied according to “Type/Ordering code” in the table with mounting accessories.
2. Two types of light distribution: spotlight and floodlight. The light fittings are supplied without lens. Lighting distribution is of floodlight. If required, please specify when ordering.

Zones 1&2; 21&22

Technical data

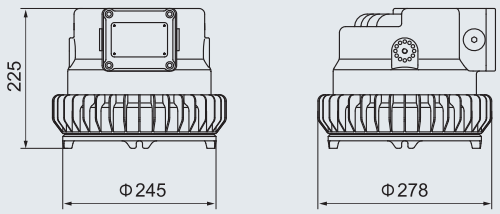
Explosion-proof LED lightings BDD95-90-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db e IIC T□[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T□[1] Db IP66 [1] See Selection Table
Certificates	EPT 15 ATEX 2315X; IECEx CQM 15.0047X; E488274(UL); E488275(UL); CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 CSA C22.2 NO.137-M1981; UL 844; UL 8750; UL 1598 CSA C22.2 NO.250.0-08; CSA C22.2 NO.250.13-14
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Lamp	
Lamp specification	Integrated LED, Multiple LED
Lamp power (W)	60W, 90W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~300V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Mounting	bracket type, hook type, pole type
Cable entries	2 x M25 x 1.5 plugs
Cable gland	DQM-I (Ex e) is recommended. Please see P7/17~19.

Selection table

Rated power(W)	Temperature classification			
	-40℃≤Ta≤+40℃		-40℃≤Ta≤+55℃	
	Gas	Dust	Gas	Dust
60	67℃ (T6)	62℃	82℃ (T5)	77℃
90	87℃ (T5)	82℃	102℃ (T4)	97℃

Dimension drawings (all dimensions in mm) - subject to alteration



BDD95-90

LED Light Fittings
BDD95 Series Explosion-proof LED Lightings

Technical data

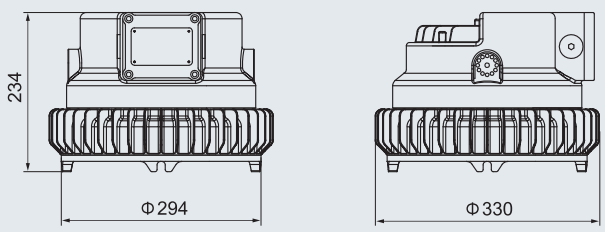
Explosion-proof LED lightings BDD95-160-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db e IIC T□[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T□[1] Db IP66
	[1] See Selection Table
Certificates	EPT 15 ATEX 2315X; IECEx CQM 15.0047X; E488274(UL); E488275(UL); CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 CSA C22.2 NO.137-M1981; UL 844; UL 8750; UL 1598 CSA C22.2 NO.250.0-08; CSA C22.2 NO.250.13-14
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Lamp	
Lamp specification	Integrated LED, Multiple LED
Lamp power (W)	120W, 160W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~300V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	bracket type, hook type, pole type
Cable entries	2 x M25 x 1.5 plugs
Cable gland	DQM-I (Ex e) is recommended. Please see P7/17~19.

Selection table

Rated power(W)	Temperature classification			
	-40℃≤Ta≤+40℃		-40℃≤Ta≤+55℃	
	Gas	Dust	Gas	Dust
120	72℃ (T6)	67℃	87℃ (T5)	82℃
160	92℃ (T5)	87℃	107℃ (T4)	102℃

Dimension drawings (all dimensions in mm) - subject to alteration

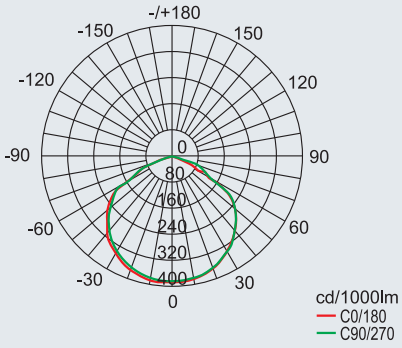


BDD95-160

Photometric data
Note: LED luminous flux is from the standard product of which colour temperature is 5400 to 6500K (cool white).

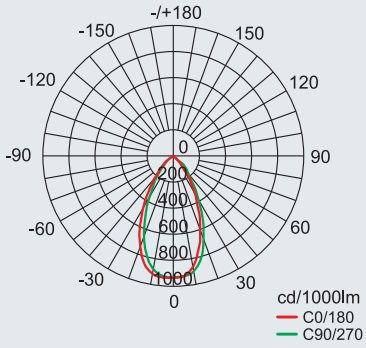
BDD95-90-□□(Standard products without lens)

Rated luminous flux
60W LED: 6730lm
90W LED: 10120lm
Luminous efficacy: 112lm/W



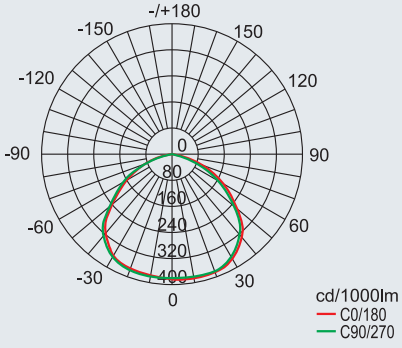
BDD95-90-□□(With 60° lens)

Rated luminous flux
60W LED: 6730lm
90W LED: 10120lm
Luminous efficacy: 112lm/W
Note: Lens of 45° and 30° can be provided on request.



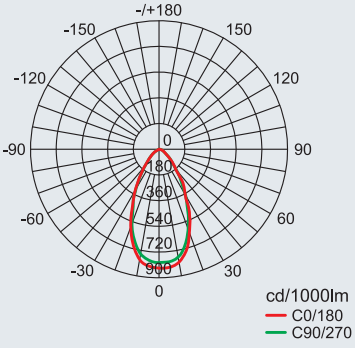
BDD95-160-□□(Standard products without lens)

Rated luminous flux
120W LED: 13420lm
160W LED: 17930lm
Luminous efficacy: 112lm/W



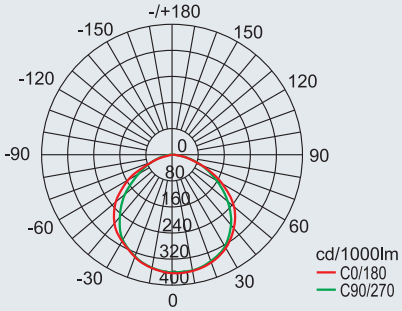
BDD95-160-□□(With 60° lens)

Rated luminous flux
120W LED: 13420lm
160W LED: 17930lm
Luminous efficacy: 112lm/W
Note: Lens of 45° and 30° can be provided on request.



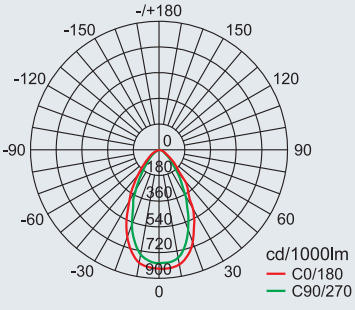
BDD95-160-□□(Standard products without lens)
Note: Measuring parameters of light fitting integrating two lamps

Rated luminous flux
2 × 120W LED: 26880lm
2 × 160W LED: 35860lm
Luminous efficacy: 112lm/W



BDD95-160-□□(With 60° lens)
Note: Measuring parameters of light fitting integrating two lamps

Rated luminous flux
2 × 120W LED: 26880lm
2 × 160W LED: 35860lm
Luminous efficacy: 112lm/W
Note: Lens of 45° and 30° can be provided on request.

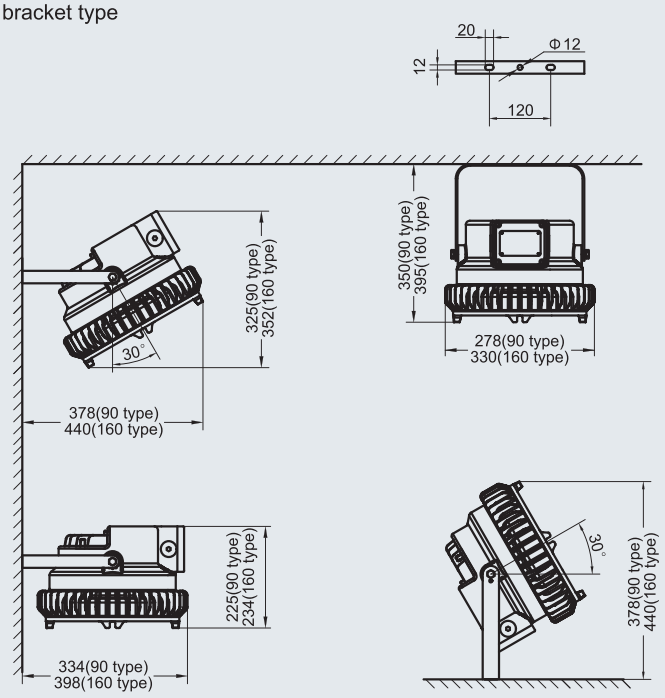


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

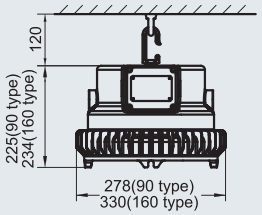
LED Light Fittings
BDD95 Series Explosion-proof LED Lightings

Mounting type (all dimensions in mm) - subject to alteration

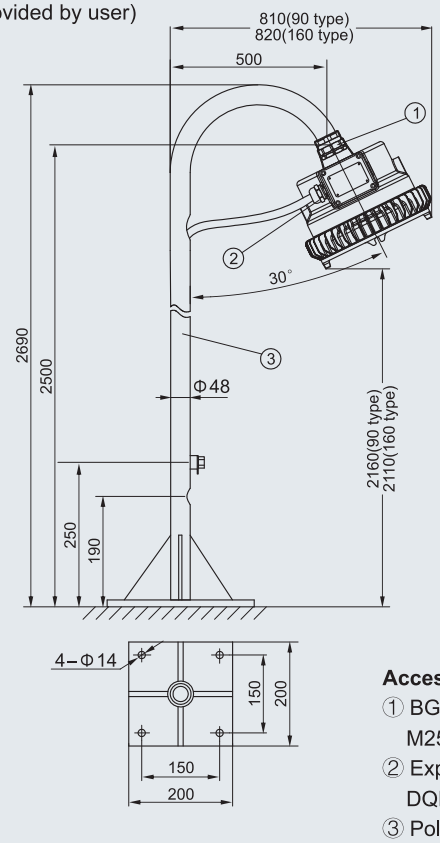
K: bracket type



D: hook type



L: pole type (the pole is provided by user)



Accessories supplied with the light fittings:

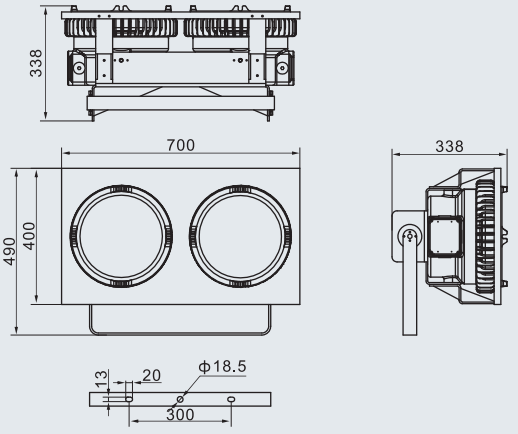
① BGJ-**III** explosion-proof connector M25x 1.5(M) / M25x 1.5(M), carbon steel.

② Explosion-proof cable glands are provided by user. DQM-**I** (Ex e) is recommended, please see P7/17~19.

③ Pole shall be provided by user.

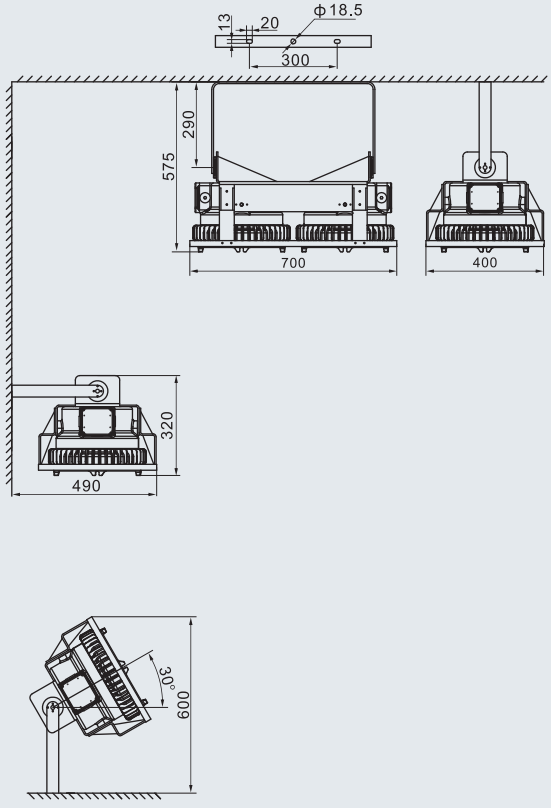
The description of light fitting integrated two lamps (2x120W, 2X160W)



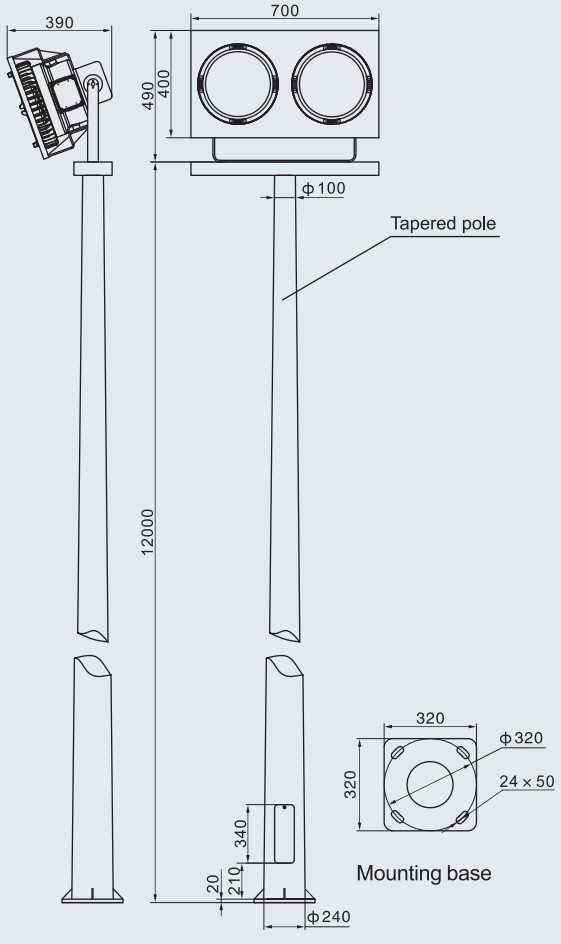


Mounting types

Bracket type



Street lamp type



LED Light Fittings
BAT86 Series Explosion-proof LED Floodlights



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups B, C, D
- Three enclosure types:90, 160, 240
- Applicable lamp and power (max.240W)
  LED: 60W, 90W, 120W, 160W, 200W, 240W
- Isolated LED lamp compartment, CC-CV (constant current-constant voltage) power controller compartment and terminal compartment; Wind-convection heat dissipation structure.
- Standard product is of floodlight effect, lens of 40° and 60° can be provided on request to realize spotlight effect
- Low-maintenance due to long service life of up to 100,000 operating hours.

Catalogue number logic

BAT86 - □-□ □

- Mounting
  - S: street lamp type (only for 90 type, 160 type)
  - Y: movable type
  - G: fixed type
- Lamp power (W)
- Enclosure type: 90, 160, 240
- Explosion-proof LED floodlight

Selection table

Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)	Type / Ordering code	Lamp power(W)	Weight (kg)
BAT86-90-60G	60	6.70	BAT86-90-60Y	60	8.50	BAT86-90-60S	60	7.55
BAT86-90-90G	90	6.70	BAT86-90-90Y	90	8.50	BAT86-90-90S	90	7.55
BAT86-160-120G	120	8.40	BAT86-160-120Y	120	10.20	BAT86-160-120S	120	9.25
BAT86-160-160G	160	8.40	BAT86-160-160Y	160	10.20	BAT86-160-160S	160	9.25
BAT86-240-160G	160	34.00	BAT86-240-160Y	160	35.70			
BAT86-240-200G	200	35.00	BAT86-240-200Y	200	36.50			
BAT86-240-240G	240	35.00	BAT86-240-240Y	240	36.50			

Note: 1. The product is supplied according to “Type/Ordering code” in the table with mounting accessories.
2. The light fittings are supplied without lens. Lighting distribution is of floodlight. Lens of 40° and 60° can be provided on request. Please specify when ordering.

Zones 1&2; 21&22

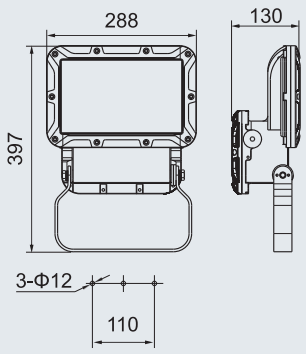
Technical data

Explosion-proof LED floodlights BAT86-90-□□

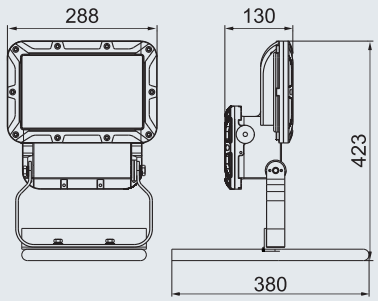
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB+H_2 T6/T5 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃/T95℃ Db IP65
Certificates	EPT 15 ATEX 2300X; IECEx CQM 15.0033X; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	60W, 90W (50W and 70W are optional)
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~300V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	T6/T80℃ for Tamb: -40℃~+40℃ T5/T95℃ for Tamb: -40℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	Movable type, fixed type, street lamp type
Cable entries	2 x M25 x 1.5 plugs
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Dimension drawings (all dimensions in mm) - subject to alteration

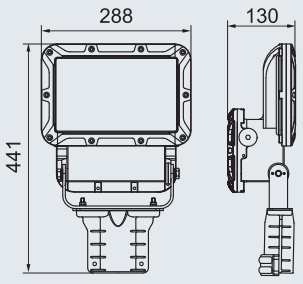
G: fixed type



Y: movable type



S: street lamp type



LED Light Fittings
BAT86 Series Explosion-proof LED Floodlights

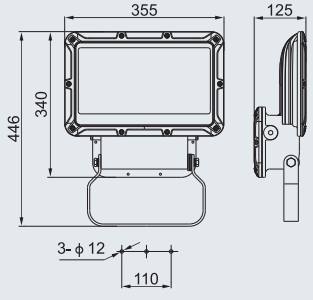
Technical data

Explosion-proof LED floodlights BAT86-160-□□

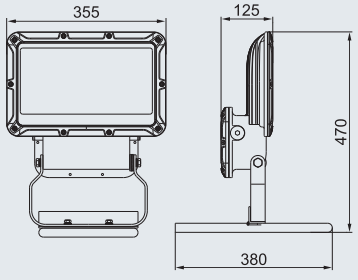
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIB T□[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T□[1] Db IP66
	[1] See Ambient temperature
Certificates	LCIE 14 ATEX 3023X; IECEx CQM 14.0008X; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ⩾0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	120W, 160W (100W is optional)
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~300V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	120W T6/T80℃ for Tamb: -40℃~+40℃ 160W T5/T95℃ for Tamb: -40℃~+40℃ 120W T5/T95℃ for Tamb: -40℃~+55℃ 160W T4/T130℃ for Tamb: -40℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Mounting	Movable type, fixed type, street lamp type
Cable entries	2 x M25 x 1.5 plugs
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Dimension drawings (all dimensions in mm) - subject to alteration

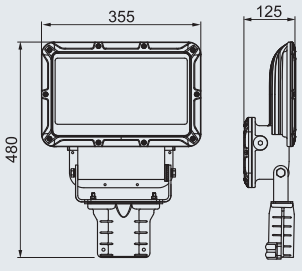
G: fixed type



Y: movable type



S: street lamp type



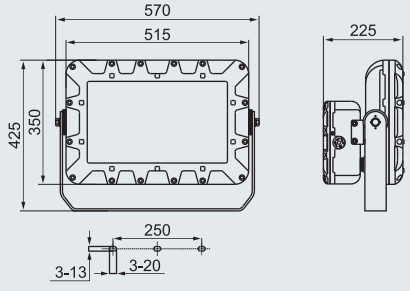
Technical data

Explosion-proof LED floodlights BAT86-240-□□

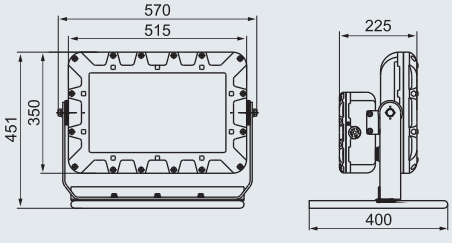
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db op is IIB+H_2 T□[1)] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb op is IIIC T□[1)] Db IP66
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1,EN 60079-28, EN 60079-31 IEC 60079-0, IEC 60079-1,IEC 60079-28, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor≥0.95, with function of distributed current, constant current, surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	160W, 200W, 240W
Colour Temperature (CCT)	Cool white: 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	100~277V AC 50/60Hz, 130~250V DC
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	160W T6/T80℃ for Tamb: -40℃~+55℃ 200W/240W T5/T95℃ for Tamb: -40℃~+55℃ 200W/240W T6/T80℃ for Tamb: -40℃~+40℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	Movable type, fixed type
Cable entries	2 x M25 x 1.5 plugs
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Dimension drawings (all dimensions in mm) - subject to alteration

G: fixed type



Y: movable type

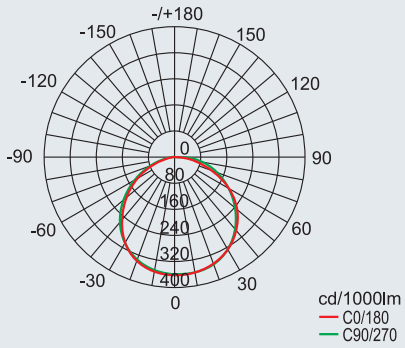


LED Light Fittings
BAT86 Series Explosion-proof LED Floodlights

Photometric data
Note: LED luminous flux is from the standard product of which colour temperature is 5400 to 6500K (cool white).

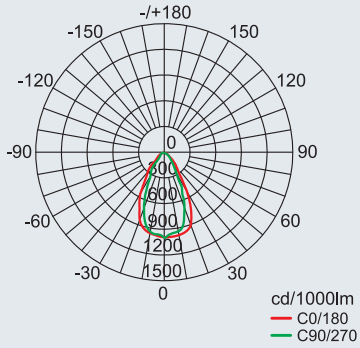
BAT86-90-□□

Rated luminous flux
60W LED: 6120lm
90W LED: 9200lm
Luminous efficacy: 102lm/W



BAT86-90-□□(With 60° lens)

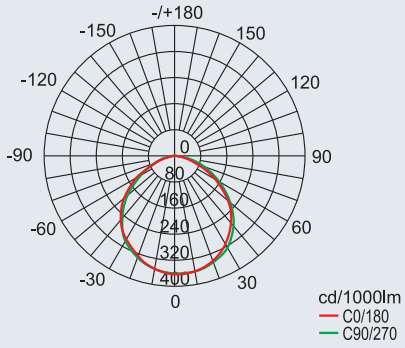
Rated luminous flux
60W LED: 6120lm
90W LED: 9200lm
Luminous efficacy: 102lm/W
Note: Lens of 40° and 25° can be provided on request.



BAT86-160-□□

Rated luminous flux
120W LED: 12200lm
160W LED: 14500lm

Luminous efficacy
120W LED: 102lm/W
160W LED: 91lm/W

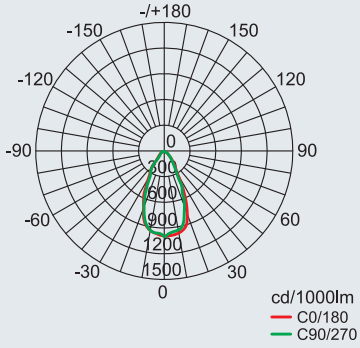


BAT86-160-□□(With 60° lens)

Rated luminous flux
120W LED: 12200lm
160W LED: 14500lm

Luminous efficacy
120W LED: 102lm/W
160W LED: 91lm/W

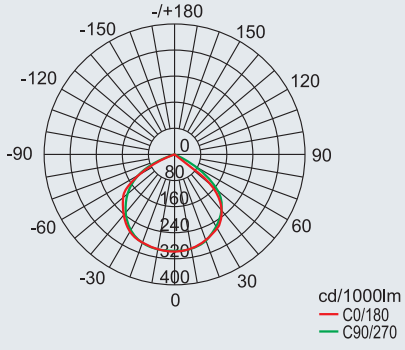
Note: Lens of 40° and 25° can be provided on request.



BAT86-240-□□

Rated luminous flux
160W LED: 19250lm
200W LED: 24000lm
240W LED: 28800lm

Luminous efficacy
120W LED: 120lm/W
160W LED: 120lm/W
240W LED: 120lm/W

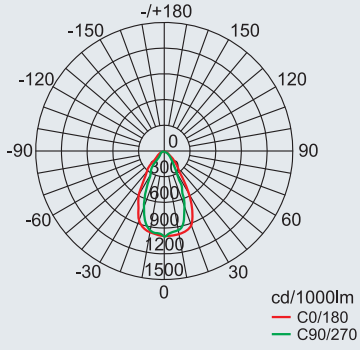


BAT86-240-□□(With 60° lens)

Rated luminous flux
160W LED: 19250lm
200W LED: 24000lm
240W LED: 28800lm

Luminous efficacy
120W LED: 120lm/W
160W LED: 120lm/W
240W LED: 120lm/W

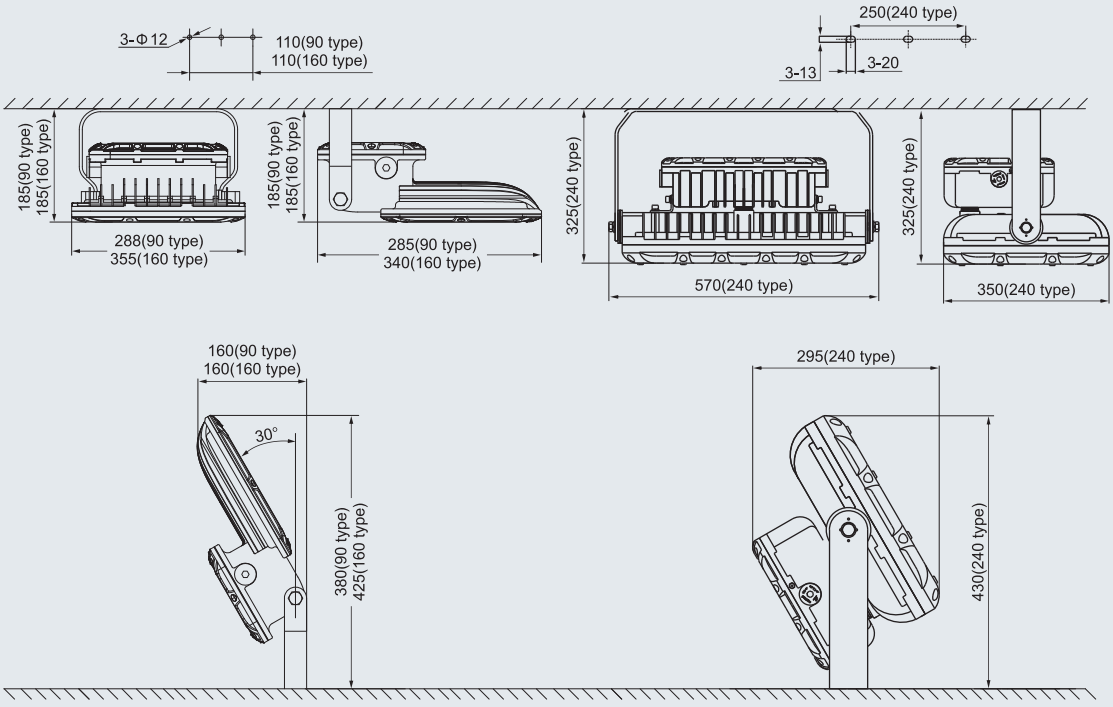
Note: Lens of 40° and 25° can be provided on request.



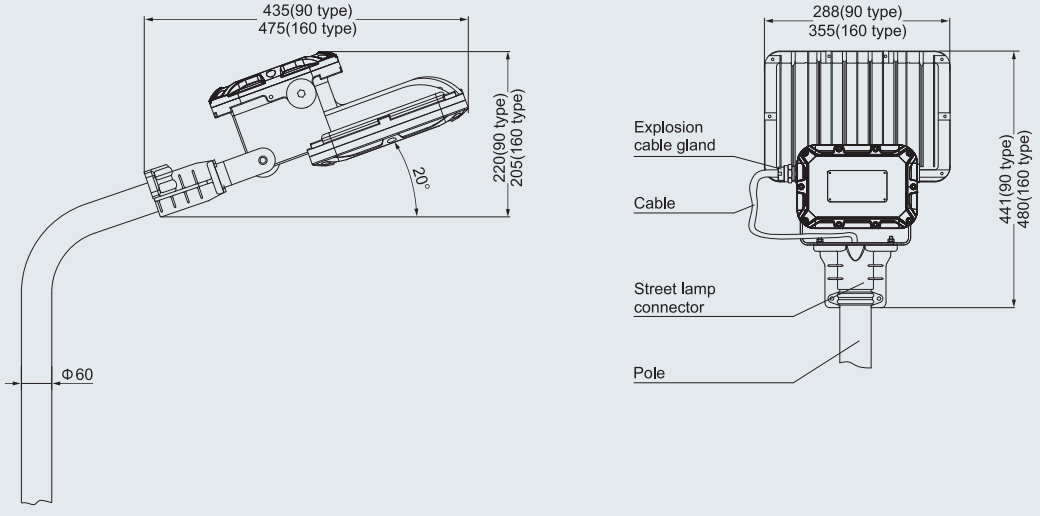
We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Mounting type (all dimensions in mm) - subject to alteration

bracket type



street lamp type



LED Light Fittings
HRND95 Series Explosion-proof LED Lightings



- Explosion protection to
  - CENELEC
  - IEC
  - NEC
- Can be used in
  Zone 2
  Zone 22
  Class I, Zone 2
  Class I, Division 2, Groups A, B, C, D
- Applicable lamp and power (max.300W)
  LED: 40W, 60W, 80W, 120W, 160W, 200W, 240W, 300W
- International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- Two types of light distribution: spotlight and floodlight, which can be selected on request.
- Standard luminaries equip without lens, 30° lens and 60° lens which are optional, please indicate when placing an order.
- Standard luminaries do not equip with external lampshade, if need, please specify.
- Low-maintenance due to long service life of up to 100,000 operating hours.

Catalogue number logic

HRND95 - □

- □ — Lamp power (W)
- HRND95 — Explosion-proof LED Lightings

Selection table

Type/Ordering code	Lamp power (W)	Weight (kg)	Type/Ordering code	Lamp power (W)	Weight (kg)
HRND95-40	40	3.50	HRND95-160	160	9.50
HRND95-60	60	4.00	HRND95-200	200	10.00
HRND95-80	80	6.00	HRND95-240	240	16.50
HRND95-120	120	6.50	HRND95-300	300	17.00

Note: 1. Standard products without lens, 30° lens and 60° lens which are optional, please indicate when placing an order.
2. Standard luminaries do not equip with external lampshade if need, please specify.

Zones 2; 22

Technical data

Explosion-proof LED Lightings HRND95-□

Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nR IIC T□[1] Gc
Dust explosion protection	Ⓔx II 3 D Ex tc IIIC T□[1] Dc IP66
	[1] See Selection Table
Certificates	ATEX (applied for); IECEx EUT 18.0002X
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface,
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output,power factor≥0.95, with function of distributed current, constant current,surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	40W, 60W, 80W, 120W, 160W, 200W, 240W, 300W
Colour Temperature (CCT)	Nature white: 5000±300K Note: nature white is available in general. Warm white (3000±200K) is optional, please specify when ordering.
Rated voltage	100~277V AC 50/60Hz, 130~250V DC
Degree of protection	IP66
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable	1x M20 x 1.5 cable gland (DQM-I Ex e)

Selection table

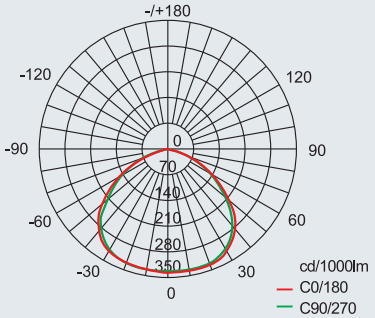
Rated power(W)	Temperature classification			
	-40℃≤Ta≤+40℃		-40℃≤Ta≤+55℃	
	Gas	Dust	Gas	Dust
40, 80	–	–	T6	T80℃
60, 120, 160, 200, 240, 300	T6	T80℃	T5	T95℃

LED Light Fittings
HRND95 Series Explosion-proof LED Lightings

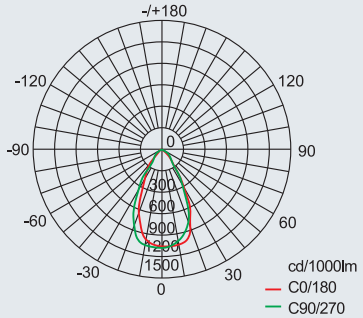
Photometric data

Note: Standard products without lens, 30° lens and 60° lens which are optional, please indicate when placing an order.

HRND95-□
Rated luminous flux
40W LED: 5345lm
60W LED: 7430lm
Luminous efficacy
40W LED: 133lm/W
60W LED: 124lm/W

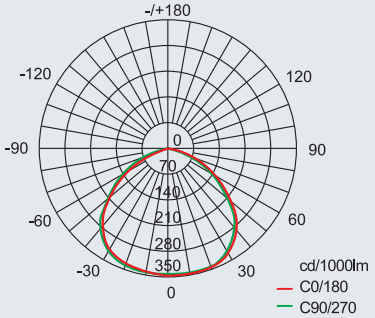


without lens

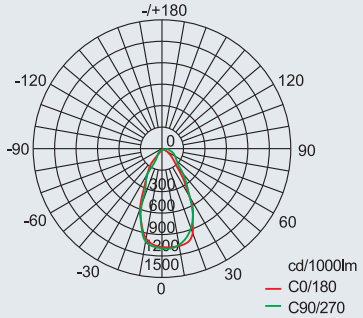


with 60° lens

HRND95-□
Rated luminous flux
80W LED: 10820lm
120W LED: 15310lm
Luminous efficacy
80W LED: 135lm/W
120W LED: 128lm/W

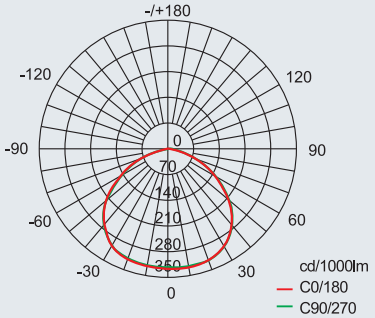


without lens

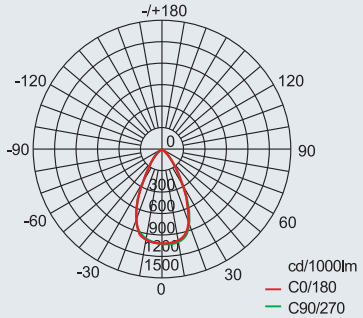


with 60° lens

HRND95-□
Rated luminous flux
160W LED: 21590lm
200W LED: 25895lm
Luminous efficacy
160W LED: 135lm/W
200W LED: 129lm/W

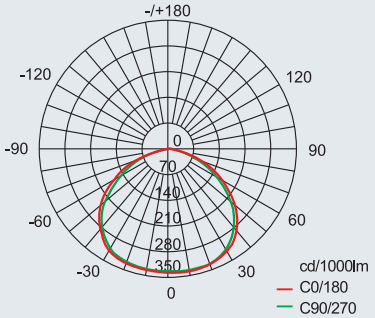


without lens

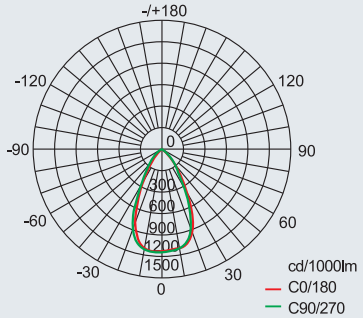


with 60° lens

HRND95-□
Rated luminous flux
240W LED: 32540lm
300W LED: 39750lm
Luminous efficacy
240W LED: 135lm/W
300W LED: 132lm/W



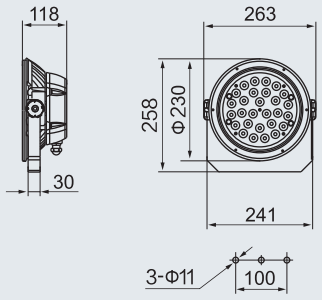
without lens



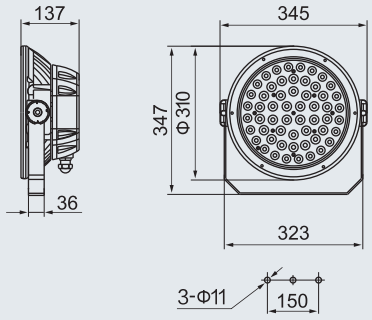
with 60° lens

We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

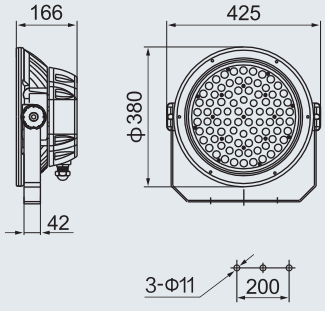
Dimension drawings (all dimensions in mm) - subject to alteration



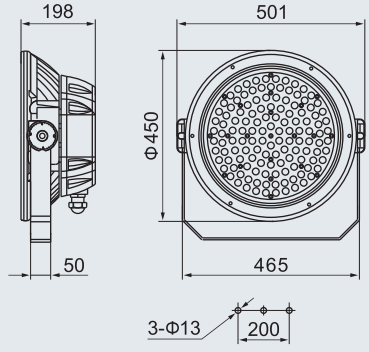
HRND95-40 / HRND95-60



HRND95-80 / HRND95-120



HRND95-160 / HRND95-200



HRND95-240 / HRND95-300

Accessories

Picture	Name	Ordering code	Weight (kg)
	40W/60W Reflector	95001	0.23
	80W/120W Reflector	95002	0.39
	160W/200W Reflector	95003	0.45
	240W/300W Reflector	95004	0.69

LED Light Fittings
HRNT95 Series Explosion-proof LED Floodlights



- Explosion protection to
  - CENELEC
  - IEC
  - NEC
- Can be used in
  Zone 2
  Zone 22
  Class I, Zone 2
  Class I, Division 2, Groups A, B, C, D
- Applicable lamp and power (max.300W)
  LED: 80W, 120W, 240W, 300W
- International brand white light LED, reasonable arrangement of multi LED, high lighting efficiency and long service life.
- Two types of light distribution: spotlight and floodlight, which can be selected on request.
- Standard luminaries equip with 60° lens, 30° lens which is optional, please indicate when placing an order.
- Low-maintenance due to long service life of up to 100,000 operating hours.

Catalogue number logic

HRNT95 - □

- □ — Lamp power (W)
- HRNT95 — Explosion-proof LED Floodlights

Selection table

Type/Ordering code	Lamp power (W)	Weight (kg)	Type/Ordering code	Lamp power (W)	Weight (kg)
HRNT95-80	80	10.00	HRNT95-240	240	12.50
HRNT95-120	120	11.00	HRNT95-300	300	13.00

Note: 1. Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.
2. Standard luminaries do not equip with wire guard, if need, please specify.

Zones 2; 22

Technical data

Explosion-proof LED floodlights HRNT95-□

Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nR IIC T□[1)] Gc
Dust explosion protection	Ⓔx II 3 D Ex tc IIIC T□[1)] Dc IP66
	[1)] See Selection Table
Certificates	ATEX (applied for); IECEx EUT 18.0003X
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface,
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output,power factor≥0.95, with function of distributed current, constant current,surge-proof and anti-electromagnetic interference, and protection against overcurrent, open circuit, and short circuit.
Exposed fastener	Stainless steel
Lamp	
Lamp specification	LED module, Multiple LED
Lamp power (W)	80W, 120W, 240W, 300W
Colour Temperature (CCT)	Nature white: 5000±300K Note: nature white is available in general. Warm white (3000±200K) is optional, please specify when ordering.
Rated voltage	100~277V AC 50/60Hz, 130~250V DC
Degree of protection	IP66
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Cable	1x M20 x 1.5 cable gland (DQM-I Ex e)

Selection table

Rated power(W)	Temperature classification			
	-40℃≤Ta≤+40℃		-40℃≤Ta≤+55℃	
	Gas	Dust	Gas	Dust
80	–	–	T6	T80℃
120, 240, 300	T6	T80℃	T5	T95℃

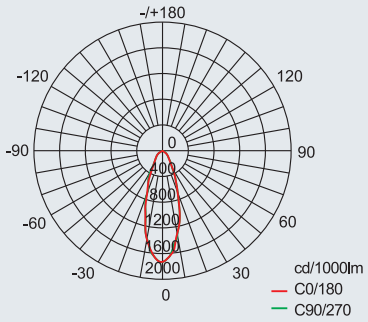
LED Light Fittings
HRNT95 Series Explosion-proof LED Floodlights

Photometric data

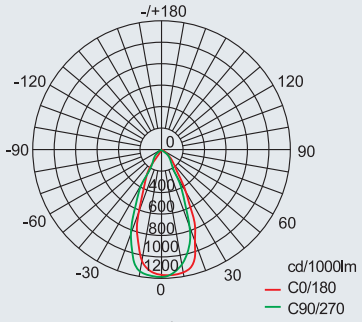
Note:Standard products with 60° lens, 30° lens which is optional, please indicate when placing an order.

HRNT95-□
Rated luminous flux
80W LED: 9750lm
120W LED: 13920lm
Luminous efficacy
80W LED: 122lm/W
120W LED: 116lm/W





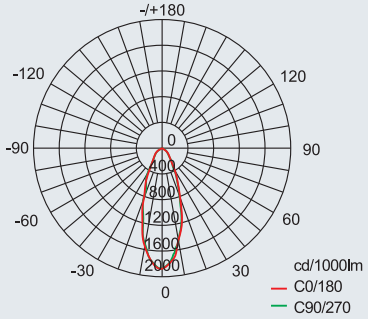
with 30° lens



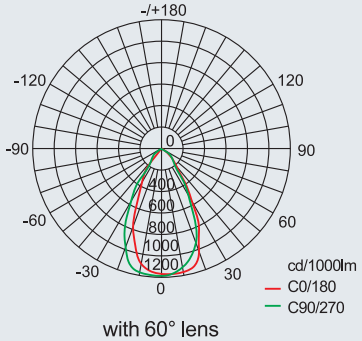
with 60° lens

HRNT95-□
Rated luminous flux
240W LED: 29650lm
300W LED: 39065lm
Luminous efficacy
240W LED: 124lm/W
300W LED: 130lm/W





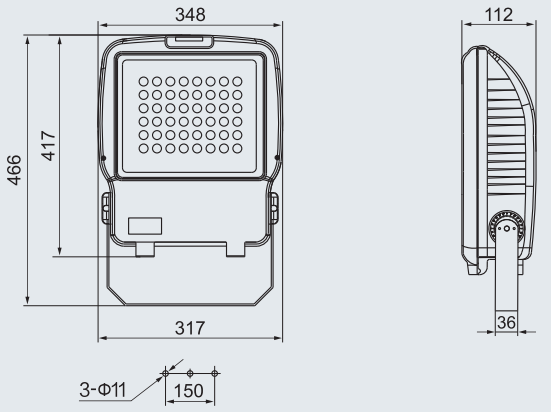
with 30° lens



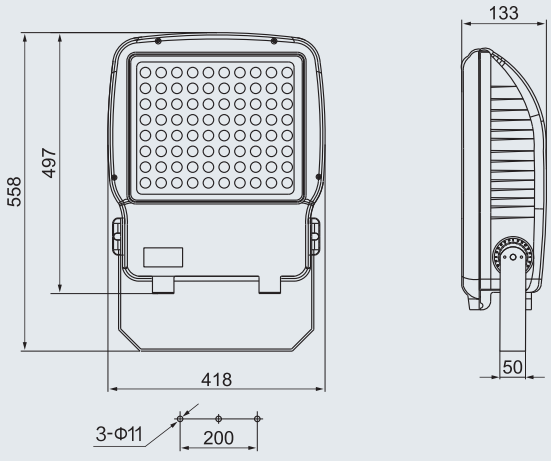
with 60° lens

We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Dimension drawings (all dimensions in mm) - subject to alteration

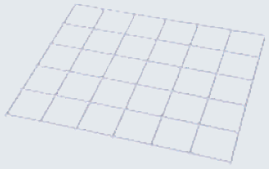


HRNT95-80 / HRNT95-120



HRNT95-240 / HRNT95-300

Accessories

Picture	Name	Ordering code	Weight (kg)
	80W/120W Wire guard	95009	0.40
	240W/300W Wire guard	95010	0.55

Pendant Light Fittings
HRD61 Series Explosion-proof Light Fittings



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- Available lamp (max. 400W)
  - -Metal halide lamp (HIE)
  - -High pressure mercury lamp (HME)
  - -High pressure sodium lamp (HSE)
- Three enclosure types: 150, 250, 400.
- Integral control gear, easy installation and maintenance.
- Explosion-proof trigger, rapid starting, stable performance and long service life.
- Wireless connection between body and top cover, easy installation and maintenance.
- Powder coated wire guard, white.
- Toughened glass cover resistant to temperature changes.

Catalogue number logic

HRD61-□ -□ □ □

- Mounting
  - D: hook type
  - G: pendant pole type
  - B: wall type
  - X: ceiling type
  - L: pole type
- Lamp power (W)
- Lamp
  - HIE: Metal halide lamp
  - HSE: High pressure sodium lamp
  - HME: High pressure mercury lamp
- Enclosure type: 150, 250, 400
- Explosion-proof light fittings

Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder
	HIE	HSE	HME	
HRD61-150	70, 100, 150	70, 100	80, 125	E27
HRD61-250	175, 250	150, 250	175, 250	E40
HRD61-400	400	400	400	E40

Note

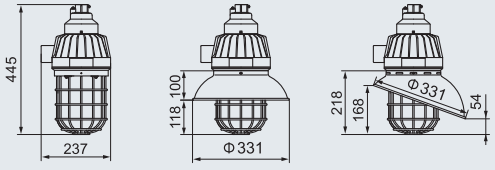
1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
2. HPI European standard ballast is supplied with HIE light fitting. HPI European standard lamps are recommended.
3. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2; 21&22

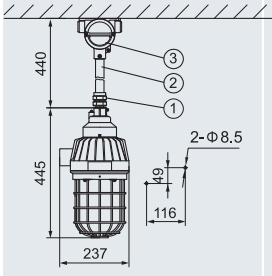
Technical data

Explosion-proof light fittings	HRD61-150-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T4/T3 Gb
Dust explosion protection	Ⓔx II 2 D Ex tD A21 T135℃/T200℃ IP66
Certificates	DNV 10 ATEX 85533X; IECEx CQM 11.0010; RU C-CN.ГБ05.B.00344 (CU-TR) KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Wire guard	Powder coated carbon steel, white
Transparent cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	Explosion-proof trigger
Power factor	COSΦ ⩾0.90 (compensated)
Internal reflector	High-purity aluminium
External reflector(optional)	Pure aluminium, anodic-oxidation treatment for surface
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E27
Available lamp and lamp power (W)	Metal halide lamp (HIE): 70W, 100W, 150W High pressure mercury lamp (HME): 80W, 125W High pressure sodium lamp (HSE): 70W, 100W Note: HPI European standard ballast is available in general
Rated voltage	220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional))
Ambient temperature	T4/T135℃ for Tamb: -60℃~+40℃; T3/T200℃ for Tamb: -60℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1"(pole type)
Cable gland	See Mounting type
Available cable outer diameter	Φ10~Φ14 (mm)

Mounting type (all dimensions in mm) – subject to alteration

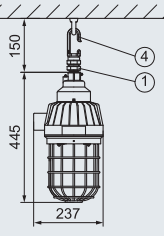


G: pendant pole type



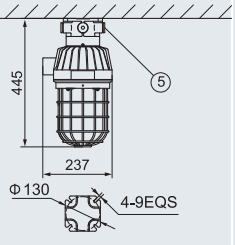
Weight: 10.35kg
Accessories supplied with the light fittings
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
②.Straight pipe (M25 x 1.5), length: 300mm.
③.BHD51-F (Ex d IIC, copper-free aluminium), see P3/4.

D: hook type



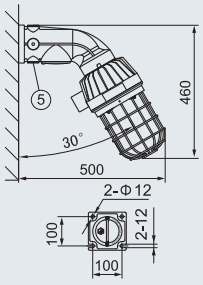
Weight: 9.30kg
Accessories supplied with the light fittings:
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
④.Hook (carbon steel)

X: ceiling type



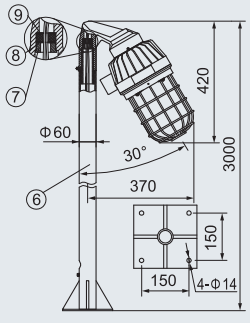
Weight: 9.45kg
Accessories supplied with the light fittings:
⑤.4 x M25 x1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
Please see P7/20~29.

B: wall type



Weight: 11.20kg
Accessories supplied with the light fittings:
⑤.4 x M25 x1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
Please see P7/20~29.

L: pole type



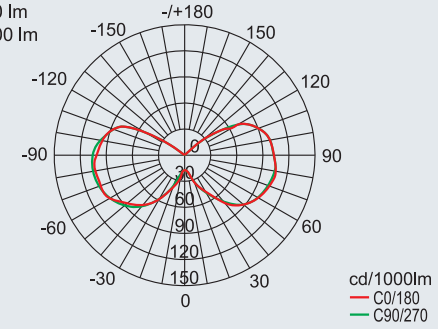
Weight: 9.70kg
Accessories supplied with the light fittings:
⑥.Pole shall be provided by user.
⑦.Locking bolt, 1No.
⑧.Washer, 2 Nos.
⑨.Seal ring, 1No.

Photometric data

HRD61-150-□□□(Without external reflector)



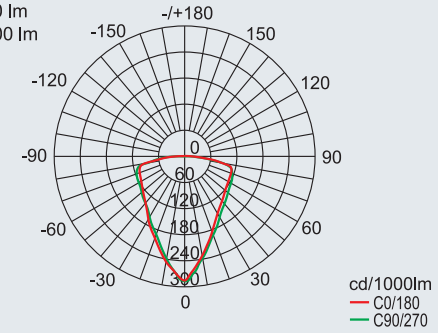
Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
The data from Philips lamp



HRD61-150-□□□(With wide reflector)



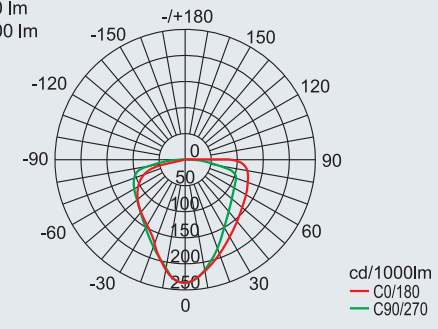
Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
The data from Philips lamp



HRD61-150-□□□(With angle reflector)



Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
The data from Philips lamp

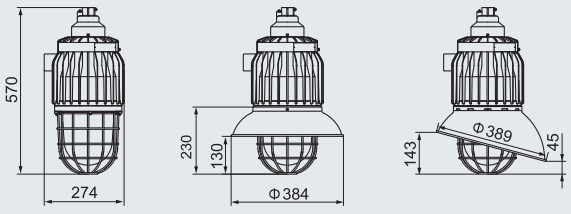


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

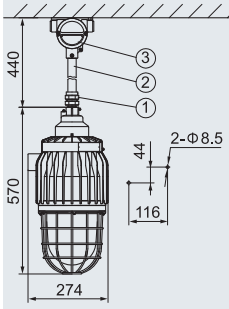
Technical data

Explosion-proof light fittings	HRD61-250-□□□
Explosion protection	
Gas explosion protection	Ⓔx Ⅱ 2 G Ex db ⅡC T3 Gb
Dust explosion protection	Ⓔx Ⅱ 2 D Ex tb ⅢC T190℃ Db IP66
Certificates	TÜV CY 18 ATEX 0206012X; IECEx CQM 07.0003X; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Wire guard	Powder coated carbon steel, white
Transparent cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	Explosion-proof trigger
Power factor	COSφ ⩾0.90 (compensated)
Internal reflector	High-purity aluminium
External reflector(optional)	Pure aluminium, anodic-oxidation treatment for surface
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E40
Available lamp and lamp power (W)	Metal halide lamp (HIE): 175W, 250W High pressure mercury lamp (HME): 175W, 250W High pressure sodium lamp (HSE): 150W, 250W Note: HPI European standard ballast is available in general
Rated voltage	220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1"(pole type)
Cable gland	See Mounting type
Available cable outer diameter	Φ10~Φ14 (mm)

Mounting type (all dimensions in mm) – subject to alteration

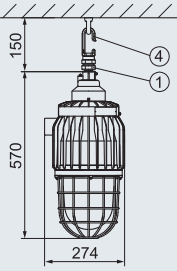


G: pendant pole type



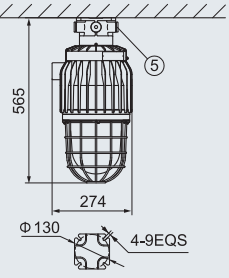
Weight: 17.20kg
Accessories supplied with the light fittings:
①.BGJ-III explosion-proof connector G3/4″ (M)/M25 x 1.5 (F), carbon steel.
②.Straight pipe (M25 x 1.5), length: 300mm.
③.BHD51-F (Ex d IIC, cast iron), see P3/4.

D: hook type



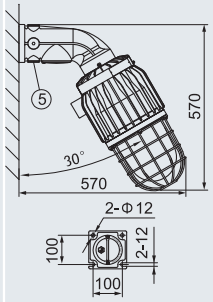
Weight: 14.55kg
Accessories supplied with the light fittings:
①.BGJ-III explosion-proof connector G3/4″ (M)/M25 x 1.5 (F), carbon steel.
④. Hook (carbon steel)

X: ceiling type



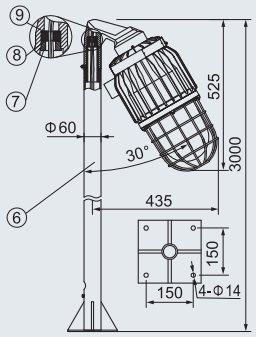
Weight: 15.20kg
Accessories supplied with the light fittings:
⑤.4 x M25 x1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
Please see P7/20~29.

B: wall type



Weight: 16.95kg
Accessories supplied with the light fittings:
⑤.4 x M25 x1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
Please see P7/20~29.

L: pole type



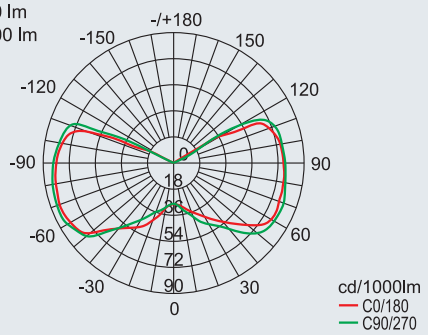
Weight: 15.50kg
Accessories supplied with the light fittings:
⑥.Pole shall be provided by user.
⑦.Locking bolt, 1 No.
⑧.Washer, 2 Nos.
⑨.Seal ring, 1No.

Photometric data

HRD61-250-□□□(Without external reflector)



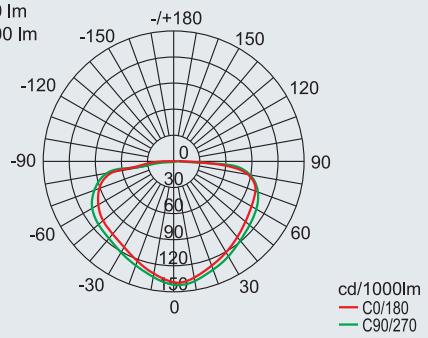
Rated luminous flux
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



HRD61-250-□□□(With wide reflector)



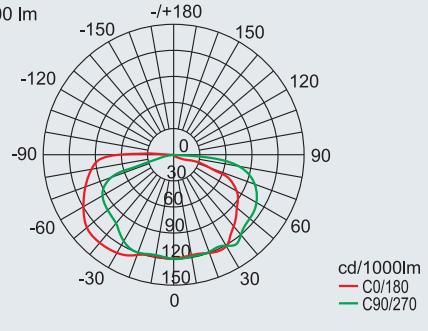
Rated luminous flux
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



HRD61-250-□□□(With angle reflector)



Rated luminous flux
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp

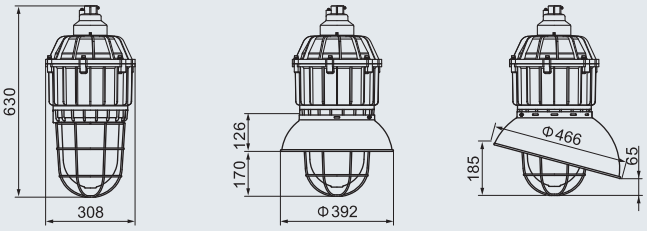


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

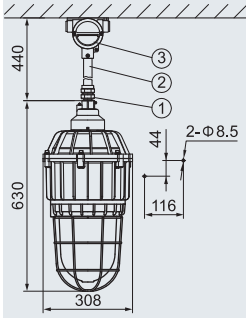
Technical data

Explosion-proof light fittings	HRD61-400-□□□
Explosion protection	
Gas explosion protection	Ⓔx Ⅱ 2 G Ex db ⅡC T3 Gb
Dust explosion protection	Ⓔx Ⅱ 2 D Ex tb ⅢC T194℃ Db IP66
Certificates	TÜV CY 18 ATEX 0206013X; IECEx CQM 08.0004; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Wire guard	Powder coated carbon steel, white
Transparent cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSΦ ⩾0.90 (compensated)
Internal reflector	High-purity aluminium
External reflector(optional)	Pure aluminium, anodic-oxidation treatment for surface
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E40
Available lamp and lamp power (W)	Metal halide lamp (HIE): 400W High pressure mercury lamp (HME): 400W High pressure sodium lamp (HSE): 400W Note: HPI European standard ballast is available in general
Rated voltage	220~240V AC 50Hz (60Hz is optional) 208V, 250V, 277V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	1 x G3/4" (pendant pole type and hook type); 4 x M25x1.5 (wall type and ceiling type); 1 x G1"(pole type)
Cable gland	See Mounting type
Available cable outer diameter	Φ10~Φ14 (mm)

Mounting type (all dimensions in mm) – subject to alteration

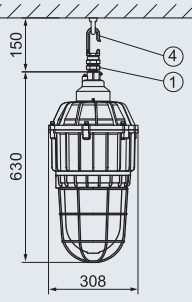


G: pendant pole type



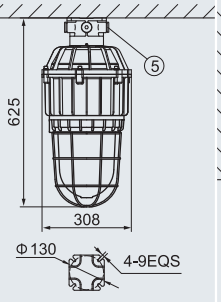
Weight: 23.65kg
Accessories supplied with the light fittings:
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
②.Straight pipe(M25 x 1.5), length: 300mm.
③.BHD51-F (Ex d IIC, cast iron), see P3/4.

D: hook type



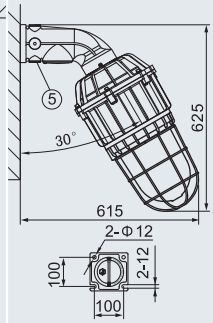
Weight: 20.85kg
Accessories supplied with the light fittings:
①.BGJ-III explosion-proof connector G3/4" (M)/M25 x 1.5 (F), carbon steel.
④. Hook (carbon steel)

X: ceiling type



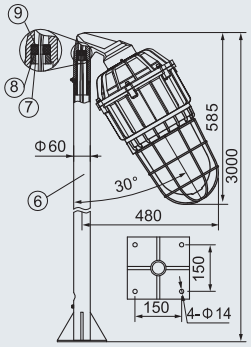
Weight: 21.50kg
Accessories supplied with the light fittings:
⑤.4 x M25 x1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
Please see P7/20~29.

B: wall type



Weight: 23.25kg
Accessories supplied with the light fittings:
⑤.4 x M25 x1.5 Plugs; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended.
Please see P7/20~29.

L: pole type



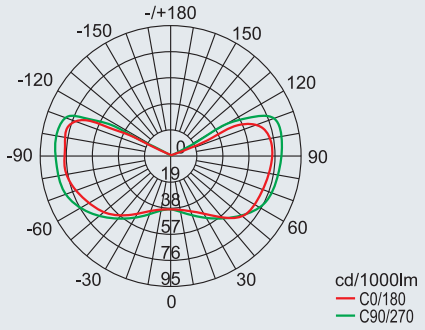
Weight: 21.80kg
Accessories supplied with the light fittings:
⑥.Pole shall be provided by user.
⑦.Locking bolt, 1 No.
⑧.Washer, 2 Nos.
⑨.Seal ring, 1 No.

Photometric data

HRD61-400-□□□(Without external reflector)



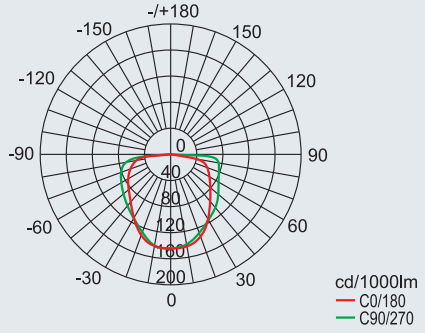
Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



HRD61-400-□□□(With wide reflector)



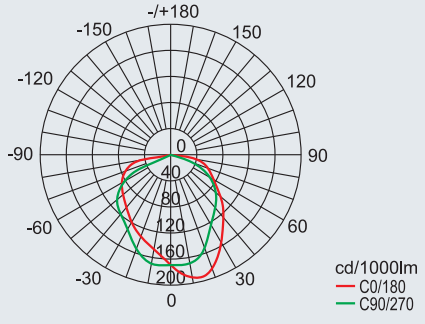
Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



HRD61-400-□□□(With angle reflector)



Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

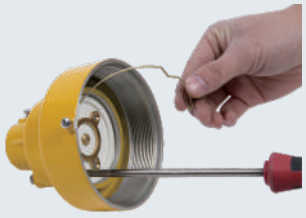
Pendant Light Fittings
HRD61 Series Explosion-proof Light Fittings

Accessories

Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	61001	0.15
	250 Wide reflector	61002	0.27
	400 Wide reflector	91003	0.45
	150 Angle reflector	61004	0.15
	250 Angle reflector	61005	0.36
	400 Angle reflector	71004	0.57
	Hook	61020	0.20
	Explosion-proof electronic trigger (For HRD61-150 type, HRD61-250 type)	61034	0.34

Note: Ballast, capacitor, 400 type trigger see P1/21

Power connection lamp replacement



- Unscrew lock bolt at top cover, remove top cover and circlip, and take terminal block out.
- Connect the cable to terminal block, put terminal block and cirlip back to ensure proper connection.



- Screw top cover at light fitting, keep two arrows on two parts in line to ensure proper connection between two spring contact plates.



- Unscrew bolts at transparent cover, open the transparent cover and screw lamp into lamp holder. Close cover and screw bolts.

Pendant Light Fittings
HRD91 Series Explosion-proof Light Fittings



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Integral control gear, easy installation and maintenance.
- External terminal compartment, convenient for connection and maintenance.
- Two enclosure types: 250, 400.
- External reflector is optional, to increase lighting intensity.
- Both American standard and European standard are available.

Catalogue number logic

HRD91 -□-□ □

- Lamp power (W)
- Lamp
  - HIE: Metal halide lamp
  - HSE: High pressure sodium lamp
  - HME: High pressure mercury lamp
- Enclosure type: 250, 400
- Explosion-proof light fittings

Selection table

Type/Ordering code	Lamp	Available lamp power (W)		Weight (kg)	
		American standard	European standard	American standard	European standard
HRD91 -250	HIE	70, 100, 150, 175, 250	70, 100, 150, 175, 250	14.55~16.55	13.50~14.45
	HSE	70, 100, 150, 250	70, 100, 150, 250	15.20~17.50	13.50~14.45
	HME	-	80, 125,175, 250	-	14.45
HRD91 -400	HIE	400	400	21.20	20.00
	HSE	400	400	22.30	20.00
	HME	-	400	-	20.00

Note

1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
2. High pressure mercury lamp is not available in American standard products.
3. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2

Technical data

Explosion-proof light fittings — HRD91-250-□□

Explosion protection	Ex II 2 G Ex d e IIC T□[1] Gb
	[1] See Selection table
Certificates	LCIE 08 ATEX 6106X; IECEx CQM 08.0019X; FM (USA)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7 Class 3600, ANSI/ISA 60079-0, ANSI/ISA 60079-1 ANSI/ISA 60079-7, ANSI/IEC 60529, ANSI/UL 1598
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface
Wire guard	Powder coated carbon steel (white)
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSφ ≥0.90 (compensated)
Exposed fastener	Stainless steel

Lamp

Available lamp and lamp power (w)

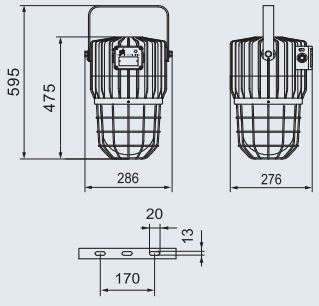
Lamp	American standard		European standard	
	Lamp holder		Lamp holder	
	E26	E39	E27	E40
HSE	70W, 100W	150W, 250W	70W, 100W	150W, 250W
HIE	70W, 100W, 150W	175W, 250W	70W, 100W, 150W	175W, 250W
HME	-	-	80W, 125W	175W, 250W

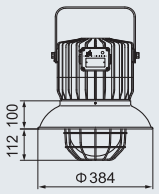
Rated voltage	American standard: 120V/208V/240V/277V AC 60Hz (50Hz is optional) European standard: 220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	2 x M25 x 1.5 plugs
Cable gland(optional)	DQM-I (Ex e) is recommended. Please see P7/17~19

Selection table

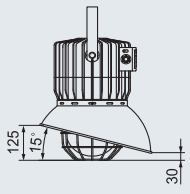
	Rated power (W)	Temperature classes		Rated power (W)	Temperature classes
European standard	HME80W, 125W	T4	**American standard**	HSE70W, 100W	T3
	HME175W, 250W	T3		HSE150W, 250W	T3
	HSE70W, 100W	T4		HIE70W, 100W,150W	T3
	HSE150W, 250W	T3		HIE175W, 250W	T3
	HIE70W, 100W,150W	T4			
	HIE175W, 250W	T3			

Dimension drawings (all dimensions in mm) - subject to alteration





With wide reflector



With angle reflector

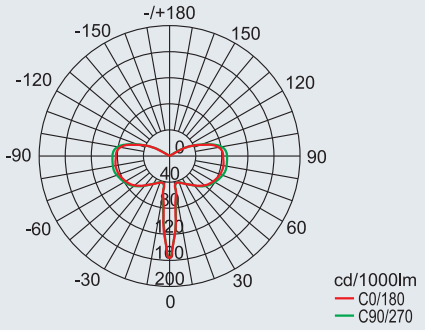
Pendant Light Fittings
HRD91 Series Explosion-proof Light Fittings

Photometric data

HRD91-250-□□(Without external reflector)



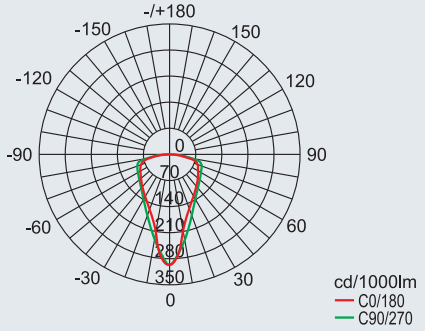
Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



HRD91-250-□□(With wide reflector)



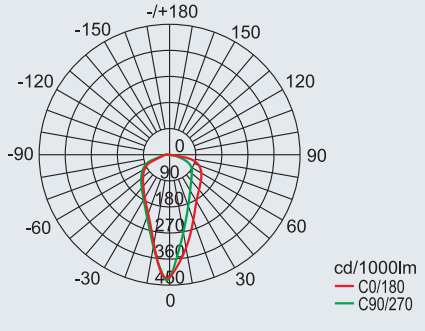
Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



HRD91-250-□□(With angle reflector)



Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Technical data

Explosion-proof light fittings — HRD91-400-□□

Explosion protection	Ⓔx II 2 G Ex d e IIC T3 Gb
Certificates	LCIE 08 ATEX 6112X; IECEx CQM 11.0019X; FM (USA)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7 Class 3600, ANSI/ISA 60079-0, ANSI/ISA 60079-1 ANSI/ISA 60079-7, ANSI/IEC 60529, ANSI/UL 1598
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface
Wire guard	Powder coated carbon steel (white)
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSφ ⩾0.90 (compensated)
Exposed fastener	Stainless steel

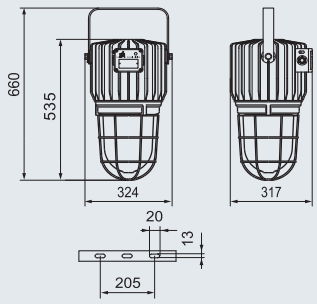
Lamp

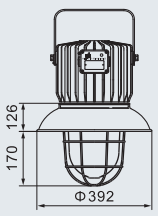
Available lamp and lamp power (w)

Lamp	American standard	European standard
	Lamp holder	Lamp holder
	E39	E40
HSE	400W	400W
HIE	400W	400W
HME	-	400W

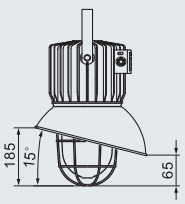
Rated voltage	American standard: 120V/208V/240V/277V AC 60Hz (50Hz is optional) European standard: 220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	2 x M25 x 1.5 plugs
Cable gland(optional)	DQM-I (Ex e) is recommended. Please see P7/17~19

Dimension drawings (all dimensions in mm) - subject to alteration





With wide reflector



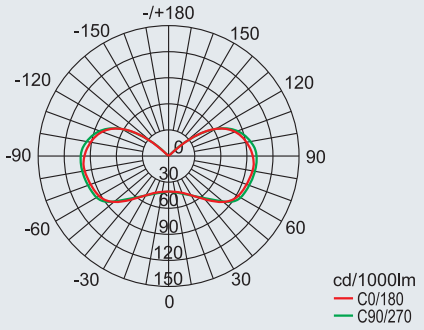
With angle reflector

Photometric data

HRD91-400-□□(Without external reflector)



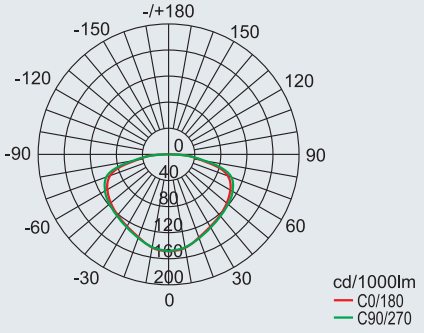
Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



HRD91-400-□□(With wide reflector)



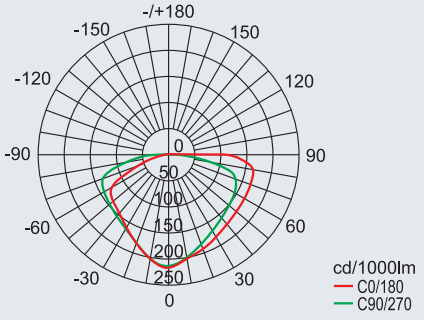
Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



HRD91-400-□□(With angle reflector)

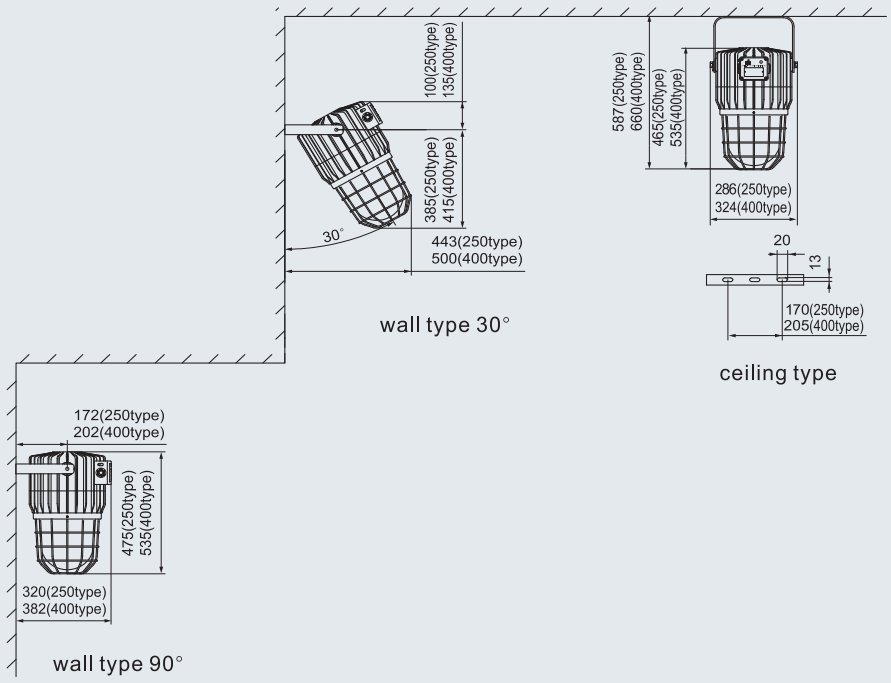


Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Mounting type (all dimensions in mm) – subject to alteration



Accessories

Picture	Name	Ordering code	Weight (kg)
	250 Wide reflector	71001	0.27
	400 Wide reflector	91003	0. 45
	250 angle reflector	71003	0. 36
	400 angle reflector	71004	0. 57

Pendant Light Fittings
BDD81 Series Explosion-proof Lightings



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- Available lamp and power:
  - Incandescent lamp: 25W, 40W, 60W, 100W
  - Energy-saving lamp: 9W, 11W
  - LED lamp: 3W, 5W, 8W
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).
- The light fittings are supplied without lamp. PHILIPS lamps are recommended.

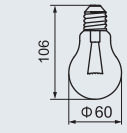
Catalogue number logic

BDD81 - □ □ □

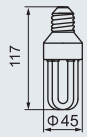
- Mounting
  - H: portable type
  - X: ceiling type
  - G: pendant pole type
- Lamp power (W)
- Lamp
  - A: Incandescent lamp
  - ESL: Energy-saving lamp
  - LED: LED lamp
- Explosion-proof lightings

Mounting type (all dimensions in mm) – subject to alteration

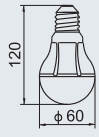
Installation reference



100W Incandescent lamp

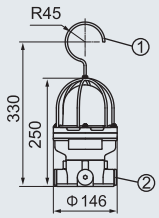


11W Energy-saving lamp



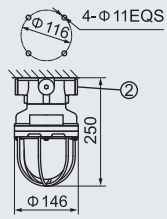
8W LED

H: portable type



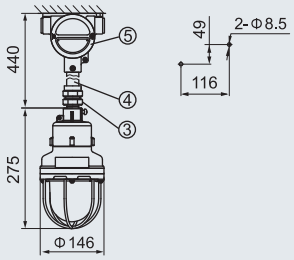
Weight: 2.70kg
Accessories supplied with the light fittings:
①.Hook
②.4 x M25 x1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

X: ceiling type



Weight: 2.50kg
Accessories supplied with the light fittings:
②.4 x M25 x1.5 Plug; Ex d cable gland (optional): DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

G: pendant pole type



Weight: 4.50kg
Accessories supplied with the light fittings:
③.BGJ-III explosion-proof connector M25 x 1.5(M)/M25 x 1.5(F), carbon steel.
④.Straight pipe(M25 x 1.5), length: 300mm.
⑤.BHD51-F (Ex d IIC, copper-free aluminium), see P3/4.

Zones 1&2; 21&22

Technical data

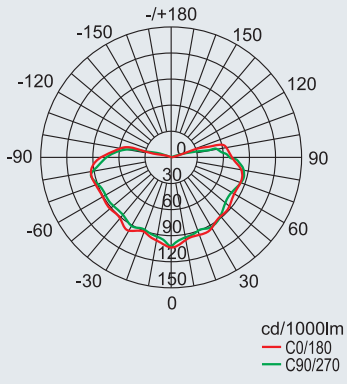
Explosion-proof lightings	BDD81-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T130℃ Db IP66
Certificates	LCIE 11 ATEX 3110X; IECEx CQM 12.0036X RU C-CN.ГБ05.B.00344 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Wire guard	Powder coated carbon steel, white (stainless steel is optional)
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E27
Available lamp and lamp power (W)	Incandescent lamp: 25W, 40W, 60W, 100W Energy-saving lamp: 9W, 11W (for sealed atmosphere) LED: 3W, 5W, 8W
Rated voltage	220~240V AC 50/60Hz
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Mounting	Portable type, ceiling type, pendant pole type
Cable entries	4 x M25 x 1.5 for ceiling type and portable type, 1 x M25 x 1.5 for pendant pole type
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Applicable cable outer diameter	Φ10~Φ14 (mm)

Photometric data

Note: LED luminous flux is from the standard product of which colour temperature is 5400 to 6500K (cool white).

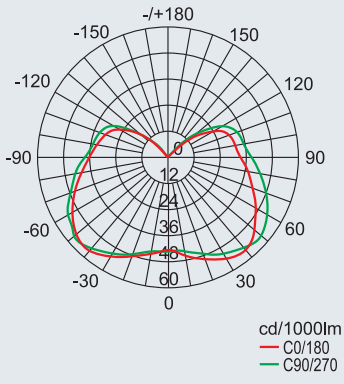
BDD81-A□□

Rated luminous flux
25W Incandescent lamp: 201lm
40W Incandescent lamp: 318lm
60W Incandescent lamp: 500lm
100W Incandescent lamp: 1025lm
The data from Philips lamp



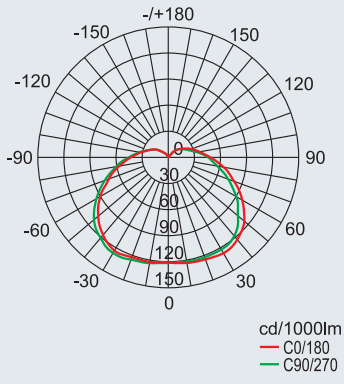
BDD81-ESL□□

Rated luminous flux
9W Energy-saving lamp: 400 lm
11W Energy-saving lamp: 570 lm
The data from Philips lamp



BDD81-LED□□

Rated luminous flux
3W LED: 255lm
5W LED: 425lm
8W LED: 680lm



Pendant Light Fittings
BDD91 Series Explosion-proof Light Fittings



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- Applicable lamp (max.400W):
  - -Metal halide lamp (HIE)
  - -High pressure sodium lamp (HSE)
  - -High pressure mercury lamp (HME)
- Three enclosure types: 150, 250, 400
- Integral control gear, easy installation and maintenance.

Catalogue number logic

BDD91 -□ -□ □ □

- Mounting
  - D: hook type
  - K: bracket type
  - L: pole type
- Lamp power (W)
- Lamp
  - HIE: Metal halide lamp
  - HSE: High pressure sodium lamp
  - HME: High pressure mercury lamp
- Enclosure type: 150, 250, 400
- Explosion-proof light fittings

Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder	Weight (kg)
	HIE	HSE	HME		
BDD91-150	70, 100, 150	70, 100	80, 125	E27	11.20
BDD91-250	175, 250	150, 250	175, 250	E40	14.80
BDD91-400	175, 250, 400	150, 250, 400	175, 400	E40	16.70

Note: 1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.

2. HPI European standard ballast is supplied with HIE light fitting. HPI European standard lamps are recommended.

3. The light fittings are supplied without external reflector. Please specify when ordering.

Zones 1&2; 21&22

Technical data

Explosion-proof light fittings	BDD91-150-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T□[1)] Gb Ex d IIC T□[1)] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T□[1)] Db IP66 Ex t IIIC T□[1)] Db IP66
	[1)] See Selection table
Certificates	DNV 11 ATEX 05977X; IECEx CQM 12.0016X RU C-CN.ГБ05.B.00344 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface
Wire guard	Powder coated carbon steel (white)
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSφ ⩾0.90 (compensated)
Exposed fastener	Stainless steel

Lamp

Available lamp and lamp power (W)

Available lamp			Lamp holder
HIE	HSE	HME	
70W, 100W, 150W	70W, 100W	80W, 125W	E27

Note: HPI European standard ballast is available in general.

Rated voltage	220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67 (optional)
Ambient temperature	-60℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	Bracket type, pole type, hook type
Cable entries	2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29

Selection table (BDD91-150)

Lamp	Lamp power (W)	Temperature classes	
		Gas	Dust
HIE	70, 100	T4	T130℃
HME	80		
HSE	70, 100		
HIE	150	T142℃	T142℃
HME	125	T147℃	T147℃

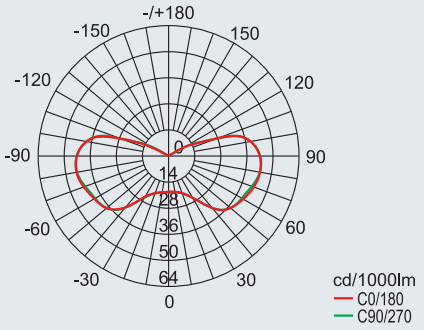
Pendant Light Fittings
BDD91 Series Explosion-proof Light Fittings

Photometric data

BDD91-150-□□□(Without external reflector)



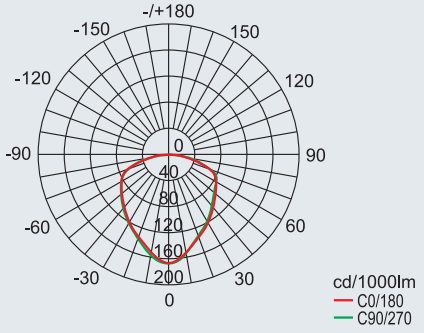
Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
The data from Philips lamp



BDD91-150-□□□(With wide reflector)



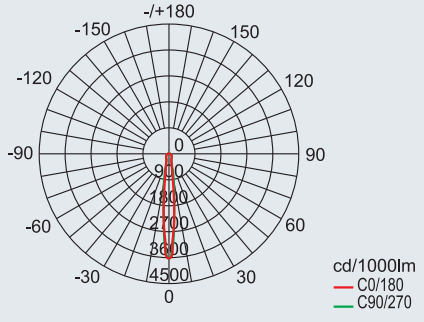
Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
The data from Philips lamp



BDD91-150-□□□(With deep reflector)



Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Technical data

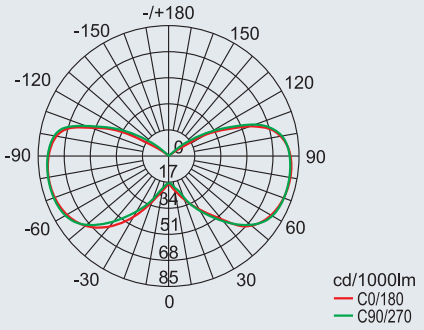
Explosion-proof light fittings	BDD91-250-□□□		
Explosion protection			
Gas explosion protection	Ⓔx II 2 G Ex d IIC T3 Gb	Ex d IIC T3 Gb	
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T190℃ Db IP66	Ex t IIIC T190℃ Db IP66	
Certificates	DNV 11 ATEX 06159X; IECEx CQM 12.0016X RU C-CN.ГБ05.B.00344 (CU-TR)		
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31		
Material			
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)		
Transparent cover	Toughened glass, stands 4J impact		
Internal reflector	High-purity aluminium		
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface		
Wire guard	Powder coated carbon steel (white)		
Ballast	Electromagnetic ballast, rapid starting, stable performance		
Trigger	General trigger		
Power factor	COSφ ⩾0.90 (compensated)		
Exposed fastener	Stainless steel		
Lamp	Available lamp		Lamp holder
Available lamp and lamp power (W)	HIE	HSE	HME
	175W, 250W	150W, 250W	175W, 250W
	Note: HPI European standard ballast is available in general		
Rated voltage	220~240V AC 50Hz (60Hz is optional)		
Earthing protection	M5 (internal & external earth bolts)		
Degree of protection	IP66, IP67 (optional)		
Ambient temperature	-60℃~+55℃		
Terminal	3 x 1.5~4mm^2 (L+N+PE)		
Mounting	Bracket type, pole type, hook type		
Cable entries	2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.		
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.		

Photometric data

BDD91-250-□□□(Without external reflector)



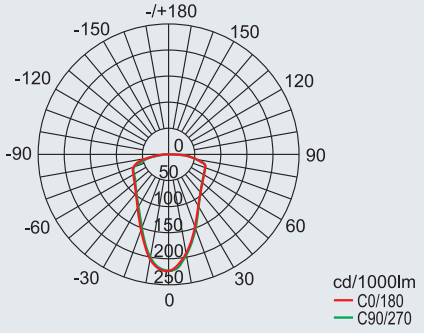
Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



BDD91-250-□□□(With wide reflector)



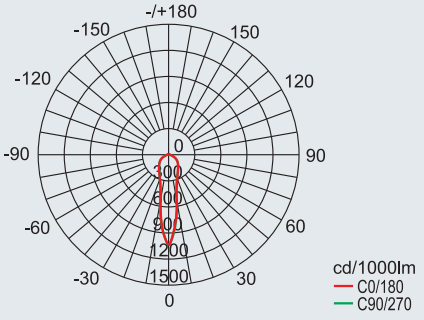
Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



BDD91-250-□□□(With deep reflector)



Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Pendant Light Fittings
BDD91 Series Explosion-proof Light Fittings

Technical data

Explosion-proof light fittings	BDD91-400-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T□[1)] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T□[1)] Db IP66
	[1)] See Selection Table
Certificates	DNV 11 ATEX 06160X; IECEx CQM 12.0016X RU C-CN.ГБ05.B.00344 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface
Wire guard	Powder coated carbon steel (white)
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSφ ≥0.90 (compensated)
Exposed fastener	Stainless steel

Lamp

Available lamp and lamp power (W)

Available lamp			Lamp holder
HIE	HSE	HME	
175W, 250W, 400W	150W, 250W, 400W	175W, 400W	E40

Note: HPI European standard ballast is available in general.

Rated voltage	220V, 230V, 240V AC 50Hz, 220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67 (optional)
Ambient temperature	-60℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	Bracket type, pole type, hook type
Cable entries	2 x M25x1.5 for bracket type, 1 x M25x1.5 for pole type.
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

Selection table

Rated voltage (V)	Rated power (W)	Temperature classes			
		-60℃ ≤Ta≤ +55℃		-60℃ ≤Ta≤ +40℃	
		Gas	Dust	Gas	Dust
220V~240V AC 50/60Hz	HIE175W, 250W HSE150W	T4	T130℃	-	-
	HIE400W, HSE400W HME400W	T3	T190℃	-	-
220V AC 50/60Hz	HSE250W HME175W	T4	T130℃	-	-
230V/240V AC 50/60Hz	HSE250W HME175W	-	-	T4	T130℃

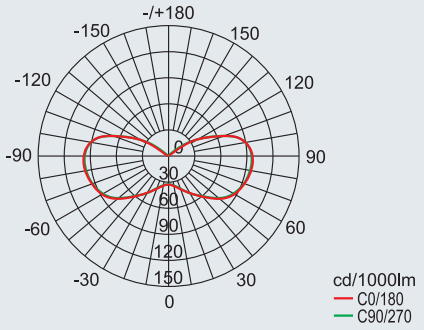
Pendant Light Fittings
BDD91 Series Explosion-proof Light Fittings

Photometric data

BDD91-400-□□□(Without external reflector)



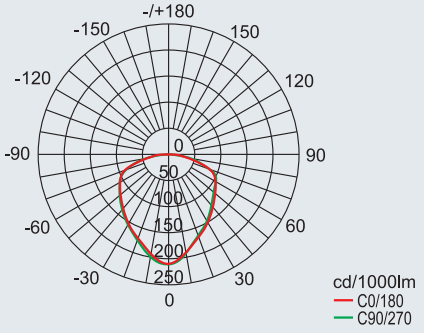
Rated luminous flux
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
400W Metal halide lamp: 42000 lm
The data from Philips lamp



BDD91-400-□□□(With wide reflector)



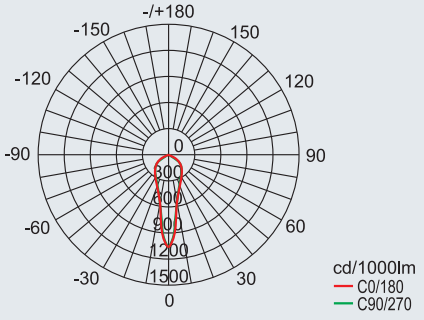
Rated luminous flux
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
400W Metal halide lamp: 42000 lm
The data from Philips lamp



BDD91-400-□□□(With deep reflector)



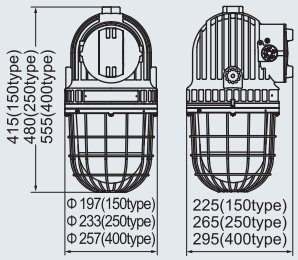
Rated luminous flux
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
400W Metal halide lamp: 42000 lm
The data from Philips lamp

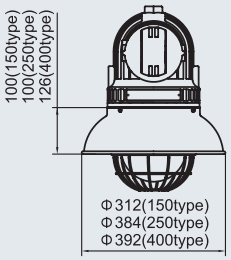


We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

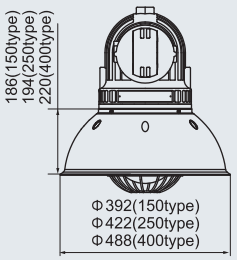
Pendant Light Fittings
BDD91 Series Explosion-proof Light Fittings

Dimension drawings (all dimensions in mm) - subject to alteration





With wide reflector

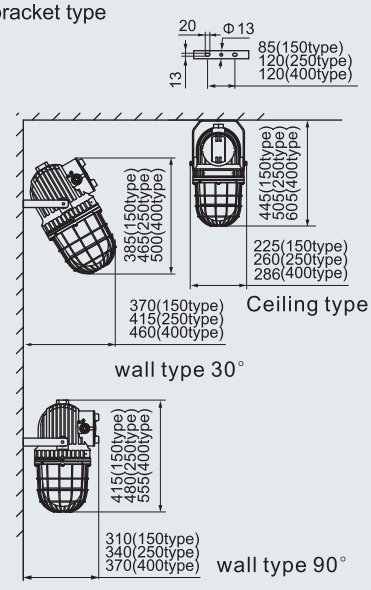


With deep reflector

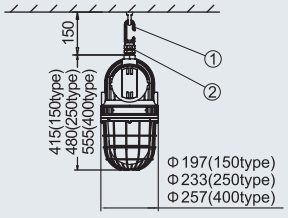
Mounting type (all dimensions in mm) – subject to alteration

Installation reference

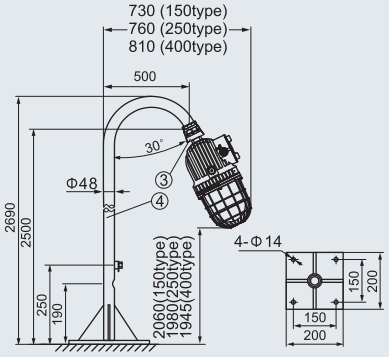
K: bracket type



D: hook type



L: pole type (the pole is provided by user)



①.Hook (carbon steel).
②.BGJ-III explosion-proof connector, M25 x 1.5(M) / M25 x 1.5(F) carbon steel.
③.BGJ–III explosion–proof connector, M25 x 1.5(M) / M25 x 1.5(M) carbon steel.
④.Pole shall not be supplied with light fittings; if required, please specify when ordering.

Accessories

Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	91001	0.20
	250 Wide reflector	61002	0.27
	400 Wide reflector	91003	0.45
	150 Deep reflector	91004	0.44
	250 Deep reflector	91005	0.55
	400 Deep reflector	91006	0.65

Note: Ballast, trigger and capactior see P1/21.

Pendant Light Fittings
BnD81 Series Explosion-proof Light Fittings



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Available lamp (max.400W):
  - -Metal halide lamp (HIE)
  - -High pressure sodium lamp (HSE)
  - -High pressure mercury lamp (HME)
- Three enclosure types: 150, 250, 400
- Integral control gear, easy installation and maintenance.
- Both American standard and European standard are available.

Catalogue number logic

BnD81 -□-□ □ □

- Mounting
  - X: ceiling type
  - B: wall type
  - G: pendant pole type
  - L: pole type 25°
- Lamp power (W)
- Lamp
  - HIE: Metal halide lamp
  - HSE: High pressure sodium lamp
  - HME: High pressure mercury lamp
- Enclosure type: 150, 250, 400
- Explosion-proof light fittings

Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder	Weight (kg)	
	HIE	HSE	HME		American standard	European standard
BnD81-150	70, 100, 150	70, 100	80, 125	E27 (E26)	8.05	6.15
BnD81-250	175, 250	150, 250	175, 250	E40 (E39)	13.00	10.20
BnD81-400	400	400	400	E40 (E39)	18.45	13.60

Note: 1. The light fittings are supplied without lamp. PHILIPS lamps are recommended.
2. The light fittings are supplied without external reflector. Please specify when ordering.
3. High pressure mercury lamp is not available in American standard products.

Zones 2; 21&22

Technical data

Explosion-proof light fittings	BnD81-150-□□□		
Explosion protection			
Gas explosion protection	Ⓔx II 3 G Ex nR IIC T4 or T3 Gc[1)]	Ex nR IIC T4 or T3 Gc[1)]	
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T130℃ or T190℃ Db IP65[1)]	Ex t IIIC T130℃ or T190℃ Db IP65[1)]	
	[1)] See Selection table		
Certificates	LCIE 12 ATEX 1018X(gas); LCIE 12 ATEX 3093X(dust) IECEx CQM 12.0045X 20150925-E477178(UL); 20151209-E477179(UL); CU-TR		
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31 UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15 CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15		
Material			
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)		
Transparent cover	Toughened glass, stands 4J impact		
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface		
Wire guard (optional)	Powder coated carbon steel (white)		
Ballast	Electromagnetic ballast, rapid starting, stable performance		
Trigger	General trigger		
Power factor	COSϕ ⩾0.90 (compensated)		
Exposed fastener	Stainless steel		
Lamp			
Lamp holder	American Standard: E26; European Standard: E27		
Available lamp and lamp power (W)	Available lamp	American Standard	European Standard
	120V/208V/240V/277V/480V AC		220~240V, 250V AC
	HIE	70W, 100W,150W	70W, 100W, 150W
	HSE	70W,100W	70W, 100W
	HME	-	80W, 125W
	Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/20)		
Rated voltage	American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional) European standard: 220~240V AC 50Hz (60Hz is optional) 250V AC 50Hz (60Hz is optional)		
Earthing protection	M5 (internal & external earth bolts)		
Degree of protection	IP65		
Ambient temperature	ATEX / IECEx: -60℃~+55℃; UL: -60℃~+45℃		
Terminal	3 x 1.5~4mm² (L+N+PE)		
Mounting	Ceiling type, wall type, pendant pole type, pole type 25°		
Cable entries	1 x M25 x 1.5		
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16~19		

Selection table

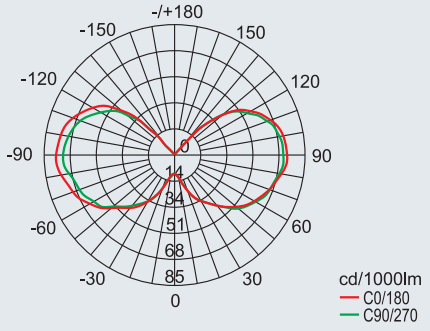
Rated power (W)		Temperature classes			
		-60℃⩽Ta⩽+40℃		-60℃⩽Ta⩽+55℃	
		Gas	Dust	Gas	Dust
European Standard	HIE 70W, 100W	T4	T130℃	T4	T130℃
	HIE 150W			T3	T190℃
	HME 80W			T4	T130℃
	HME 125W			T3	T190℃
	HSE 70W, 100W			T4	T130℃
American Standard	HIE 70W, 100W, 150W	T4	T130℃	T4	T130℃
	HSE 70W, 100W				

Photometric data

BnD81-150-□□□(Without external reflector)



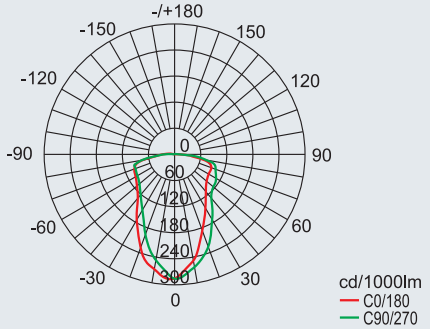
Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
The data from Philips lamp



BnD81-150-□□□(With wide reflector)



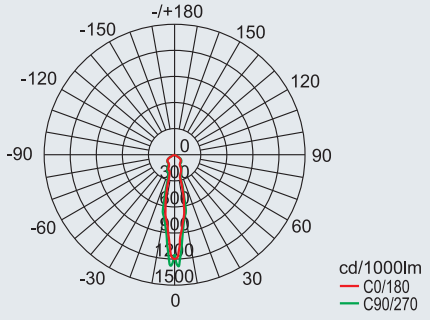
Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
The data from Philips lamp



BnD81-150-□□□(With deep reflector)



Rated luminous flux
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10200 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Technical data

Explosion-proof light fittings	BnD81-250-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nR IIC T3 Gc
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T190℃ Db IP65
Certificates	LCIE 12 ATEX 1011X(gas); LCIE 12 ATEX 3044X(dust) IECEx CQM 12.0010X; 20150925-E477178(UL); 20151209-E477179(UL); CU-TR
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31 UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15 CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface
Wire guard (optional)	Powder coated carbon steel (white)
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSφ ≥0.90 (compensated)
Exposed fastener	Stainless steel
Lamp	
Lamp holder	American Standard: E39; European Standard: E40

Available lamp and lamp power (W)

Available lamp	American Standard	European Standard
	120V/208V/240V/277V/480V AC	220~240V, 250V AC
HIE	175W, 250W	175W, 250W
HSE	150W, 250W	150W, 250W
HME	-	175W, 250W

Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/20)

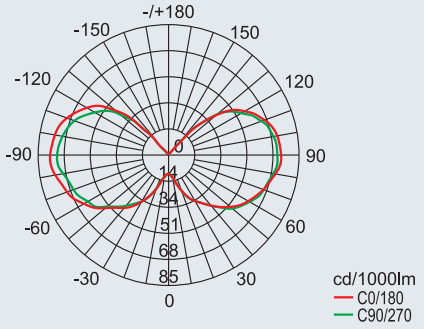
Rated voltage	American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional) European standard: 220~240V AC 50Hz (60Hz is optional) 250V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	ATEX / IECEx: -60℃~+55℃; UL: -60℃~+45℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Mounting	Ceiling type, wall type, pendant pole type, pole type 25°
Cable entries	1 x M25 x 1.5
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16~19

Photometric data

BnD81-250-□□□(Without external reflector)



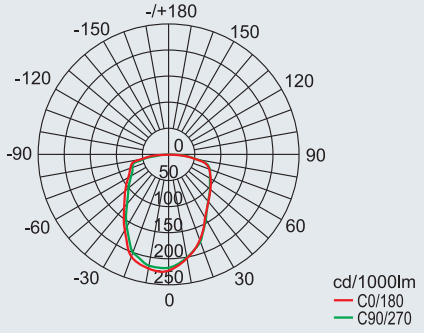
Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



BnD81-250-□□□(With wide reflector)



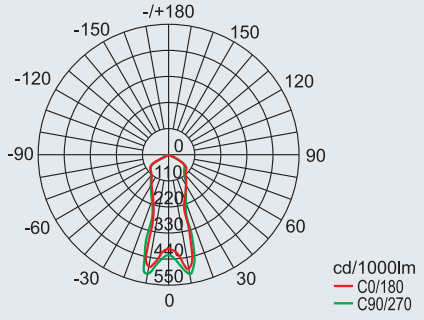
Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



BnD81-250-□□□(With deep reflector)



Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Technical data

Explosion-proof light fittings	BnD81-400-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nR IIC T□[1] Gc Ex nR IIC T□[1] Gc
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T□[1] Db IP65 Ex t IIIC T□[1] Db IP65
	[1] See Selection Table
Certificates	LCIE 12 ATEX 1019X(gas); LCIE 12 ATEX 3094X(dust)
	IECEx CQM 12.0039X; 20150925-E477178(UL); 20151209-E477179(UL); CU-TR
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31
	IEC 60079-0, IEC 60079-15, IEC 60079-31
	UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15
	CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
External reflector (optional)	Pure aluminium, anodic-oxidation treatment for surface
Wire guard (optional)	Powder coated carbon steel (white)
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSφ ≥0.90 (compensated)
Exposed fastener	Stainless steel
Lamp	
Lamp holder	American Standard: E39; European Standard: E40

Available lamp and lamp power (W)

Available lamp	American Standard	European Standard
	120V/208V/240V/277V/480V AC	220~240V, 250V AC
HIE	400W	400W
HSE	400W	400W
HME	-	400W

Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/20)

Rated voltage	American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional) European standard: 220~240V AC 50Hz (60Hz is optional) 250V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	ATEX / IECEx: -60℃~+55℃; UL: -60℃~+45℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Mounting	Ceiling type, wall type, pendant pole type, pole type 25°
Cable entries	1 x M25 x 1.5
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16~19

Selection table

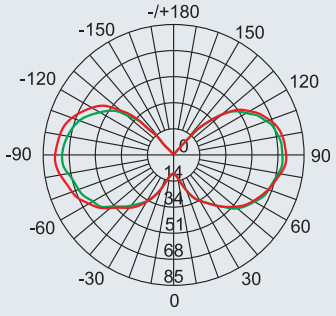
Rated power (W)		Temperature classes			
		-60℃≤Ta≤+40℃		-60℃≤Ta≤+55℃	
		Gas	Dust	Gas	Dust
European Standard	HIE 400W	T3	T190℃	T3	T190℃
	HSE 400W				
	HME 400W			T212℃	T212℃
American Standard	HIE 400W	T3	T190℃	T3	T190℃
	HSE 400W	T4	T130℃		

Photometric data

BnD81-400-□□□(Without external reflector)



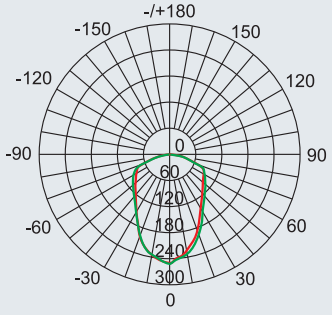
Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



BnD81-400-□□□(With wide reflector)



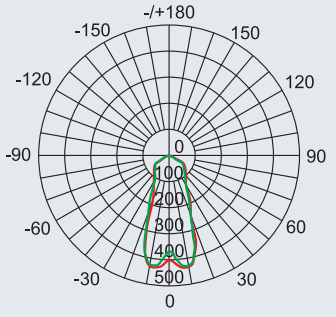
Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



BnD81-400-□□□(With deep reflector)

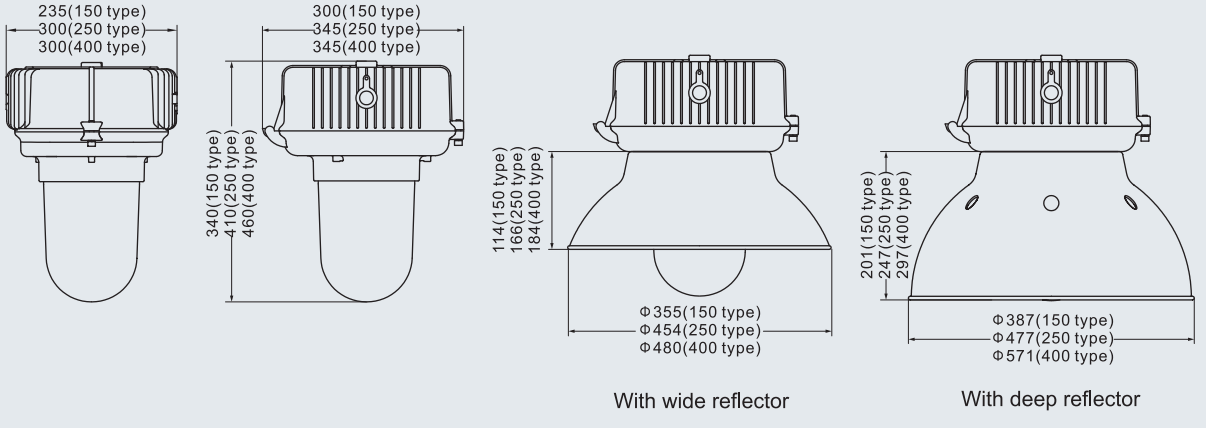


Rated luminous flux
400W Metal halide lamp: 42000 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Dimension drawings (all dimensions in mm) - subject to alteration



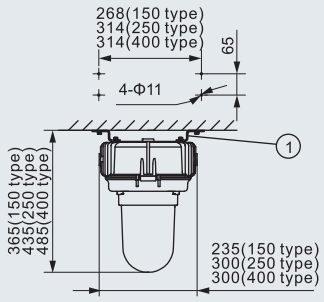
With wide reflector

With deep reflector

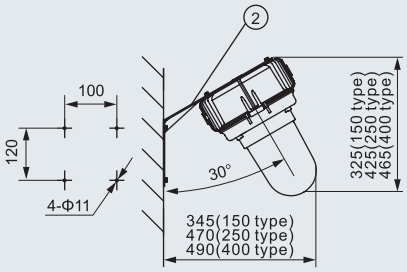
Mounting type (all dimensions in mm) – subject to alteration

Installation reference

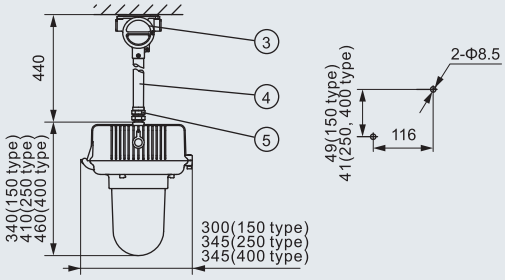
X: ceiling type



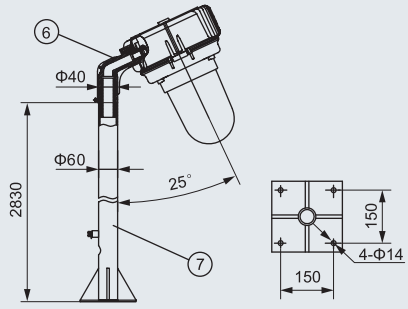
B: wall type



G: pendant pole type



L: pole type 25°



Mounting Accessories & Spare Parts Table

Supplied according to the mounting type

Mounting type	Accessories			Ordering	Weight (kg)
	Name	Qty	Illustration		
X: ceiling type	①.Mounting bracket	2	Powder coated carbon steel	81X02	0.20
B: wall type	②.Wall bracket (powder coated carbon steel)	1	150 type	81B01	1.20
			250 type	81B02	1.50
			400 type	81B02	1.50
G: pendant pole type	③.BHD51-F Explosion-proof junction box	1	150 type: copper–free aluminium	BHD51-F	0.80
			250,400 type: cast iron		2.10
	④.Straight pipe (M25 x 1.5)	1	Length: 300mm	81G01	0.41
	⑤.BGJ-III Explosion-proof connector	1	M25 x 1.5(M) / M25 x 1.5(F) Carbon steel	81D02	0.26
L: pole type 25°	⑥.Pole type 25° connector	1	Copper–free aluminium	81L02	0.80
	⑦.Pole	1	Φ60mm	81L03	-

Note: 1. Accessories not in the table shall be supplied by user.
2. Pole ⑦ shall not be supplied with light fittings; if required, please specify when ordering.

Accessories

Picture	Name	Ordering code	Weight (kg)	Picture	Name	Ordering code	Weight (kg)
	150 Wide reflector	81001	0.25		150 Deep reflector	81004	0.43
	250 Wide reflector	81002	0.35		250 Deep reflector	81005	0.63
	400 Wide reflector	81003	0.50		400 Deep reflector	81006	0.91

Floodlights
BAT53 Series Explosion-proof Floodlights



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups C, D
  - Class I, Division 1, Groups C, D
- Four enclosure types: 125, 250, 400, 1000.
- Integral control gear, easy installation and maintenance.
- Rapid starting trigger, stable performance and long service life.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).
- Toughened glass cover resistant to temperature changes.

Catalogue number logic

BAT53 - □- □ □ □

- Mounting
  - S: street lamp type (only for BAT53-250 type, See P2/130)
  - Y: movable type
  - G: fixed type
- Lamp power (W)
- Lamp
  - HIE: Metal halide lamp
  - HSE: High pressure sodium lamp
  - HME: High pressure mercury lamp
- Enclosure type: 125, 250, 400, 1000
- Explosion-proof floodlights

Selection table

Type/Ordering code	Available lamp power (W)			Lamp holder	Weight (kg)
	HIE	HSE	HME		
BAT53-125	70, 100, 150	70, 100	80, 125	E27	8.45
BAT53-250	175, 250	150, 250	175, 250	E40	14.75
BAT53-400	400	400	-	E40	30.75
BAT53-1000	1000	1000	-	E40	115.00

Note

1. Please specify any spare parts when ordering. See Accessories table.
2. 125, 250 and 400 type light fittings are supplied without lamp. PHILIPS lamps are recommended.
3. HPI European standard ballast is supplied with HIE light fitting. HPI European standard lamps are recommended.
4. 1000 type light fittings are supplied with lamp and ballast.

Zones 1&2; 21&22

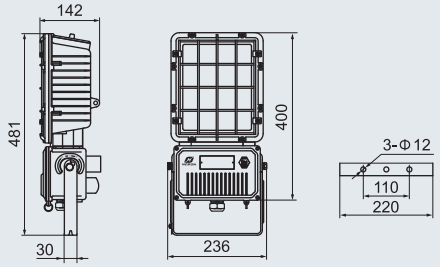
Technical data

Explosion-proof floodlights	BAT53-125-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIB T□[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T□[1] Db IP66
	[1] See Selection table
Certificates	ATEX (applied for); IECEx CQM 13.0037X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Wire guard	Powder coated carbon steel, white
Internal reflector	High-purity aluminium
Trigger	Explosion-proof electronic trigger
Power factor	COSφ ⩾0.90 (compensated)
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E27
Available lamp and lamp power (W)	High pressure sodium lamp (HSE): 70W, 100W
	High pressure mercury lamp (HME): 80W, 125W
	Metal halide lamp (HIE): 70W, 100W, 150W
	Note: HPI European standard ballast is available in general
Rated voltage	220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-60℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	2 x Φ21: 1 x M20 x 1.5 cable gland (DQM-I Ex e, carbon steel),1 x M20 x 1.5 plug
Available cable outer diameter	Φ5~Φ10 (mm)

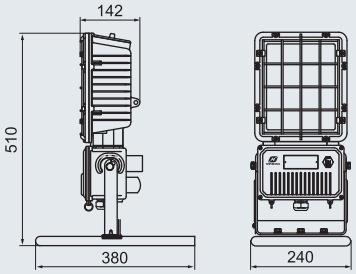
Selection table

Lamp	Lamp power (W)	Temperature classes	
		Gas	Dust
HIE	70	T156℃	T156℃
HSE	70	T156℃	T156℃
HSE	100	T185℃	T185℃
HIE	100	T181℃	T181℃
HIE	150	T190℃	T190℃
HME	80	T163℃	T163℃
HME	125	T209℃	T209℃

Dimension drawings (all dimensions in mm) - subject to alteration



G: fixed type



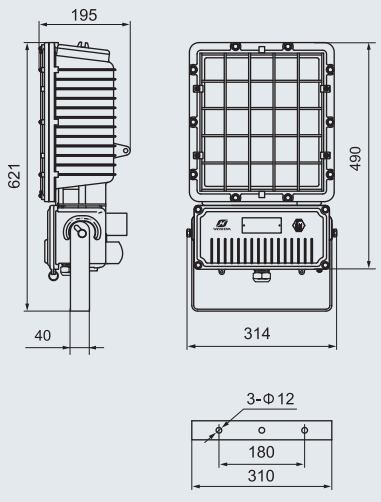
Y: movable type

Floodlights
BAT53 Series Explosion-proof Floodlights

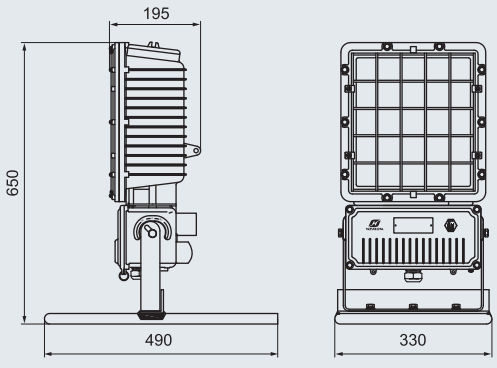
Technical data

Explosion-proof floodlights	BAT53-250-□□□
Explosion protection	
Gas explosion protection	Ⓔx Ⅱ 2 G Ex d e ⅡB T3 Ex d e ⅡB T3 Gb
Certificates	
For gas explosion protection	LCIE 05 ATEX 6143; IECEx CQM 07.0004; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 61241-0, IEC 61241-1
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Wire guard	Powder coated carbon steel, white
Internal reflector	High-purity aluminium
Trigger	Explosion-proof electronic trigger
Power factor	COSΦ ⩾0.90 (compensated)
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E40
Available lamp and lamp power (W)	High pressure sodium lamp (HSE): 150W, 250W High pressure mercury lamp (HME): 175W, 250W Metal halide lamp (HIE): 175W, 250W Note: HPI European standard ballast is available in general
Rated voltage	220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Cable entries	2 x Φ26: 1 x M25 x 1.5 cable gland (DQM-Ⅰ Ex e, carbon steel),1 x M25 x 1.5 plug
Available cable outer diameter	Φ10~Φ14 (mm)

Dimension drawings (all dimensions in mm) - subject to alteration



G: fixed type

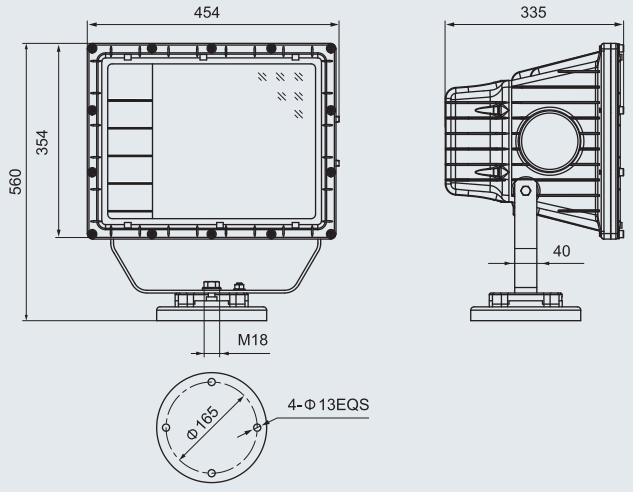


Y: movable type

Technical data

Explosion-proof floodlights	BAT53-400-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIB T3
Certificates	
For gas explosion protection	LCIE 07 ATEX 6106; IECEx CQM 08.0014; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 61241-0, IEC 61241-1
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Internal reflector	High-purity aluminium
Trigger	Explosion-proof electronic trigger
Power factor	COSφ ⩾0.90 (compensated)
Exposed fastener	Stainless steel
Wire guard (optional)	Powder coated carbon steel, white
Lamp	
Lamp holder	E40
Available lamp and lamp power (W)	High pressure sodium lamp (HSE): 400W (tubular) Metal halide lamp (HIE): 400W (tubular) Note: HPI European standard ballast is available in general
Rated voltage	220~240V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Cable entries	2 x M25 x 1.5: 1 x M25 x 1.5 cable gland (DQM-I Ex e, carbon steel),1 x M25 x 1.5 plug
Available cable outer diameter	Φ10~Φ14 (mm)

Dimension drawings (all dimensions in mm) - subject to alteration

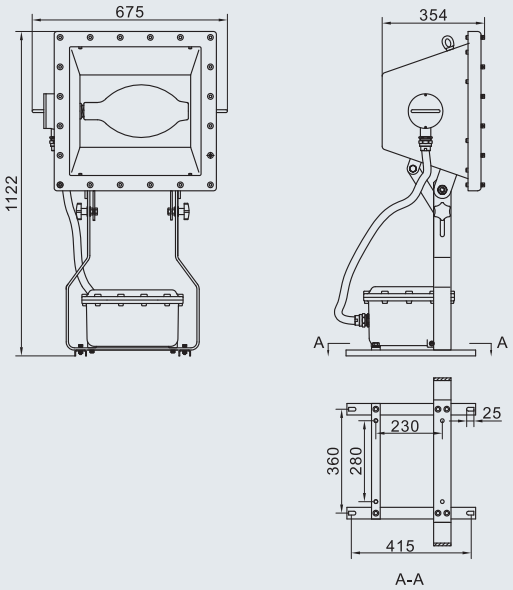


Floodlights
BAT53 Series Explosion-proof Floodlights

Technical data

Explosion-proof floodlights	BAT53-1000-□□□
Explosion protection	
Gas explosion protection	Ex II 2 G Ex d IIB T3 Gb
Dust explosion protection	Ex II 2 D Ex tb IIIC T193℃ Db IP66
Certificates	EPT 15 ATEX 1977X; IECEx CQM 14.0066X; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Welded carbon steel, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSΦ ⩾0.90 (compensated)
Internal reflector	High-purity aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E40
Available lamp and lamp power (W)	High pressure sodium lamp (HSE):1000W Metal halide lamp (HIE):1000W Note: HPI European standard ballast is available in general
Rated voltage	230V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm^2 (L+N+PE)
Cable entries	1 x M25 x 1.5
Cable gland	The cable between floodlight and ballast through BNG-M25 x 1.5(M)/M25 x 1.5(M) explosion-proof flexible conduit (length: 1000 mm); One explosion-proof cable gland (DQM-II-M25 x 1.5, Ex d, brass, armored, cable wiring)
Available cable outer diameter	Φ10~Φ14 (mm)

Dimension drawings (all dimensions in mm) - subject to alteration

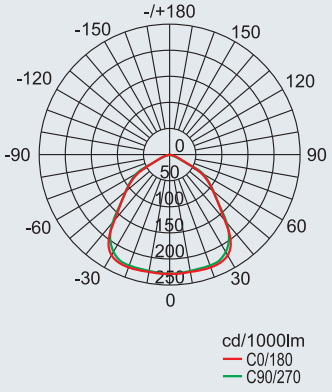


Floodlights
BAT53 Series Explosion-proof Floodlights

Photometric data

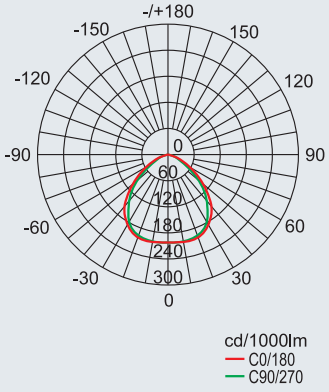
BAT53-125-□□□

Rated luminous flux
70W Metal halide lamp: 5800 lm
100W Metal halide lamp: 8700 lm
150W Metal halide lamp: 13500 lm
70W High pressure sodium lamp: 6600 lm
100W High pressure sodium lamp: 10700 lm
80W High pressure mercury lamp: 3800 lm
125W High pressure mercury lamp: 6300 lm
The data from Philips lamp



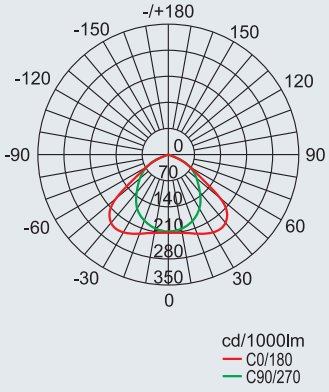
BAT53-250-□□□

Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 23200 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
The data from Philips lamp



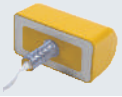
BAT53-400-□□□

Rated luminous flux
400W Metal halide lamp: 42500 lm
400W High pressure sodium lamp: 56500 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request.

Accessories

Picture	Name	Ordering code	Weight (kg)
	Explosion-proof electronic trigger (125, 250, 400 type)	61034	0.30
	125 Explosion-proof capacitor	53012	0.45
	250 Explosion-proof capacitor	53013	0.45
	400 Explosion-proof capacitor	53014	0.55
	125 Movable support	53015	1.80
	250 Movable support	53016	2.35

Note: Ballast see P1/21

Floodlights
BAT85 Series Explosion-proof Floodlights



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).
- Integral control gear, easy installation and maintenance.
- Toughened glass cover resistant to temperature changes.
- The light fittings are supplied without lamp. PHILIPS lamps are recommended.
- Both American standard and European standard are available.

Catalogue number logic

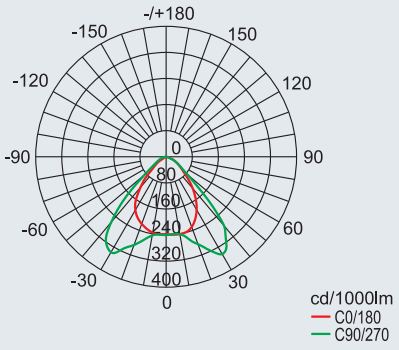
BAT85 - □ □

- Lamp power (W)
- Lamp
  - HIE: Metal halide lamp
  - HSE: High pressure sodium lamp
  - HME: High pressure mercury lamp
- Explosion-proof floodlights

Photometric data

BAT85-□□

Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 25000 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
175W High pressure mercury lamp: 7350 lm
250W High pressure mercury lamp: 13000 lm
400W Metal halide lamp: 42500 lm
400W High pressure sodium lamp: 56500 lm
400W High pressure mercury lamp: 22000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request

Zones 1&2; 21&22

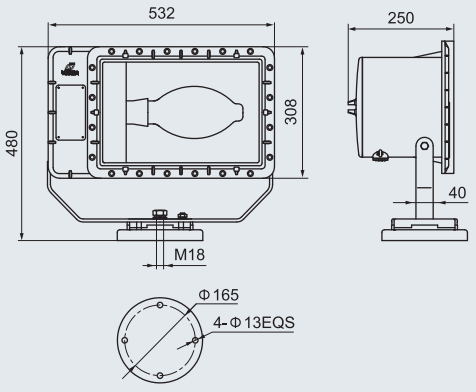
Technical data

Explosion-proof floodlights	BAT85-□□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC T3 or xxx℃[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Txxx℃[1] Db IP66
	[1] See Selection table
Certificates	TÜV CY 18 ATEX 0206017X; IECEx CQM 11.0013; FM (USA); KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31 Class 3600, ANSI/ISA 60079-0, ANSI/ISA 60079-1, ANSI/IEC 60529, ANSI/UL 1598
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSφ ≥0.90 (compensated)
Internal reflector	High-purity aluminium
Exposed fastener	Stainless steel
Lamp	
Lamp holder	European standard: E40, American standard: E39
Available lamp	Metal halide lamp (HIE): 175W, 250W, 400W High pressure sodium lamp (HSE): 150W, 250W, 400W High pressure mercury lamp (HME): 175W, 250W, 400W
Rated voltage	European standard: 120V, 208V, 220~240V, 250V, 277V AC 50Hz (60Hz is optional) American standard: 120V, 208V, 220~240V, 250V, 277V AC 60Hz (50Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~4mm² (L+N+PE)
Cable entries	2 x M25 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Weight	European standard: 28.50kg American standard: 31.40kg

Selection table

Rated voltage	Lamp	Lamp power (W)	Temperature classes			
			-20℃≤Ta≤+40℃		-20℃≤Ta≤+55℃	
			Gas	Dust	Gas	Dust
120V AC 50/60Hz	HIE	175, 250, 400	T3	190℃	T3	190℃
	HSE	150, 250, 400	T3	190℃	T3	190℃
208/220V AC 50/60Hz	HIE	175, 250, 400	T3	190℃	T3	190℃
	HME	175, 250, 400	T3	190℃	T3	190℃
	HSE	150, 250, 400	T3	190℃	T3	190℃
230V AC 50/60Hz	HIE	175, 250, 400	T3	190℃	T3	190℃
	HME	175, 250	T3	190℃	T3	190℃
		400	T3	190℃	208℃	208℃
	HSE	150, 250	T3	190℃	T3	190℃
		400	T3	190℃	206℃	206℃
240V AC 50/60Hz	HIE	175, 250, 400	T3	190℃	T3	190℃
	HME	175, 250	T3	190℃	T3	190℃
		400	T3	190℃	211℃	211℃
	HSE	150, 250	T3	190℃	T3	190℃
		400	T3	190℃	212℃	212℃
250V AC 50/60Hz	HIE	175, 250, 400	T3	190℃	T3	190℃
	HME	175, 250	T3	190℃	T3	190℃
		400	201℃	201℃	216℃	216℃
	HSE	150, 250	T3	190℃	T3	190℃
		400	211℃	211℃	226℃	226℃
277V AC 50/60Hz	HIE	175, 250	T3	190℃	T3	190℃
		400	T3	190℃	208℃	208℃
	HME	175, 250	T3	190℃	T3	190℃
	HSE	150, 250	T3	190℃	T3	190℃
		400	210℃	210℃	225℃	225℃

Dimension drawings (all dimensions in mm) - subject to alteration



Floodlights
BnT81 Series Explosion-proof Floodlights



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Available lamp (max.1000W):
  - -Metal halide lamp (HIE)
  - -High pressure sodium lamp (HSE)
- Two enclosure types: 400, 1000.
- Type 400: lamp and ballast are of integral type.
  Type 1000: lamp and ballast are split type.
- Enclosure in cooper-free aluminium, powder coated surface, yellow (RAL 1021)
- Both American standard and European standard are available.
- Type 400 are supplied without lamp, PHILIPS lamps are recommended.
- Type 1000 are supplied with lamp.

Catalogue number logic

BnT81 - □ - □ □

- Lamp power (W)
- Lamp
  - HIE: Metal halide lamp
  - HSE: High pressure sodium lamp
- Enclosure type: 400, 1000
- Explosion-proof floodlights

Zones 2; 21&22

Floodlights
BnT81 Series Explosion-proof Floodlights

Technical data

Explosion-proof floodlights **BnT81-400-□□**

Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nR IIC xxx[1] Gc
Dust explosion protection	Ⓔx II 2 D Ex t IIIC Txxx℃[1] Db IP65
	[1] See Selection table
Certificates	LCIE 12 ATEX 1012X (gas); LCIE 12 ATEX 3052X (dust); IECEx CQM 12.0011X; 20150925-E477178(UL); 20151209-E477179(UL); CU-TR
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31 UL 1598, CSA C22.2 No.250.0-8, UL 60079-0, UL 60079-15 CSA C22.2 No. 60079-0, CSA C22.2 No. 60079-15
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL 1021)
Glass cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSΦ ⩾0.90 (compensated)
Exposed fastener	Stainless steel
Lamp	
Lamp holder	American Standard: E39; European Standard: E40

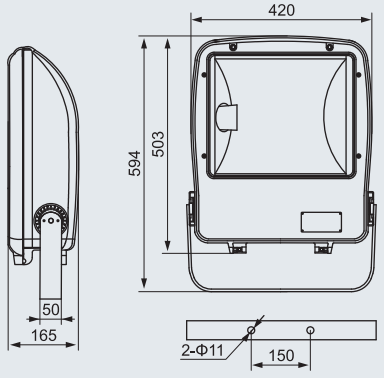
Available lamp and lamp power (W)			
American standard 120V/208V/240V/277V/480V AC	HIE	175W, 250W, 400W
	HSE	150W, 250W, 400W
European standard 220~240V, 250V AC	HIE	175W, 250W, 400W
	HSE	150W, 250W, 400W

	Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/20)
Rated voltage	American standard: 120V/208V/240V/277V/480V AC 60Hz (50Hz is optional) European standard: 220~240V, 250V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	ATEX / IECEx: -60℃~+55℃; UL: -60℃~+45℃
Terminal	3 x 1.5~4mm²(L+N+PE)
Cable entries	2 x Φ21: 1 x M20 x 1.5 plug, 1 x M20 x 1.5 cable gland (DQM-I Ex e, carbon steel)
Applicable cable outer diameter	Φ5~Φ10 (mm)
Weight	American standard: 16.10kg European standard: 12.85kg

Selection table

Rated voltage	Lamp	Lamp power (W)	Temperature classes	
			Gas	Dust
220~240V 250V AC 50/60Hz	HIE	175,250	T3	T190℃
	HSE	150,250	T3	T190℃
	HIE	400	T252℃	T252℃
	HSE	400	T252℃	T252℃
120V/208V 240V/277V 480V AC 50/60Hz	HIE	175,250,400	T3	T190℃
	HSE	150,250,400	T3	T190℃

Dimension drawings (all dimensions in mm) - subject to alteration



Technical data

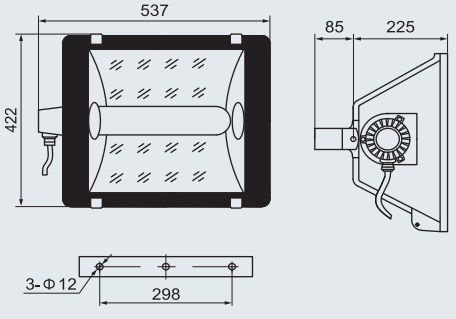
Explosion-proof floodlights BnT81-1000-□□

Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nR IIC T2 Gc
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T290℃ Db IP65
Certificates	LCIE 13 ATEX 1002X (gas); LCIE 13 ATEX 3008X (dust) IECEx CQM 13.0006X; CU-TR
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface
Glass cover	Toughened glass, stands 4J impact
Internal reflector	High-purity aluminium
Ballast	Electromagnetic ballast, rapid starting, stable performance
Trigger	General trigger
Power factor	COSϕ ⩾0.90 (compensated)
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E40
Available lamp and lamp power (W)	

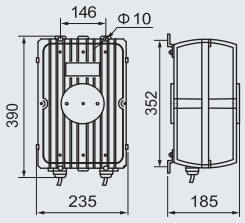
American standard 120V/208V/240V/277V AC	HIE	1000W
	HSE	1000W
European standard 230V AC	HIE	1000W
	HSE	1000W

Rated voltage	Note: Please see Selection table of American standard HID lamp and corresponding electrical components (See P1/20) American standard: 120V/208V/240V/277V AC 60Hz (50Hz is optional) European standard: 230V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	-60℃~+55℃
Terminal	3 x 1.5~4mm²(L+N+PE)
Cable entries	Lamp: 1 x M20 x1.5 cable gland (DQM-I Ex e, plastic, cable wiring) Ballast: 2 x M20 x1.5 cable glands (DQM-I Ex e, plastic, cable wiring)
Applicable cable outer diameter	Φ6~Φ12 (mm)
Weight	
Lamp	10.00kg
Ballast	American standard: 21.8kg European standard: 18.6kg

Dimension drawings (all dimensions in mm) - subject to alteration



BnT81-1000



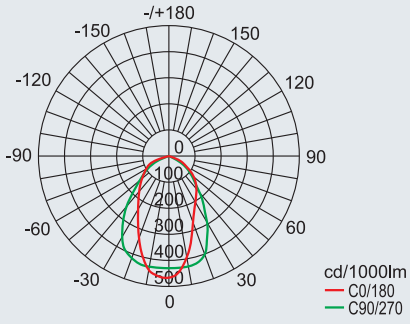
BnT81-1000 Ballast

Floodlights
BnT81 Series Explosion-proof Floodlights

Photometric data

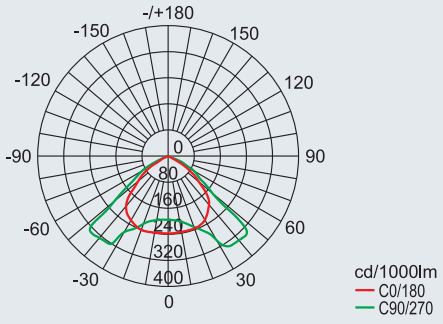
BnT81-400-□□

Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 25000 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
400W Metal halide lamp: 42500 lm
400W High pressure sodium lamp: 56500 lm
The data from Philips lamp



BnT81-1000-□□

Rated luminous flux
1000W Metal halide lamp: 85000 lm
1000W High pressure sodium lamp: 130000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request

Floodlights
HRT81 Series Explosion-proof Floodlights



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Available lamp (max.1000W):
  - -Metal halide lamp (HIE)
  - -High pressure sodium lamp (HSE)
- Two enclosure types: 400, 1000.
- Type 400: lamp and ballast are of integral type.
  Type 1000: lamp and ballast are split type.
- Enclosure in 316 stainless steel
- Type 400 are supplied without lamp, PHILIPS lamps are recommended.
- Type 1000 are supplied with lamp.

Catalogue number logic

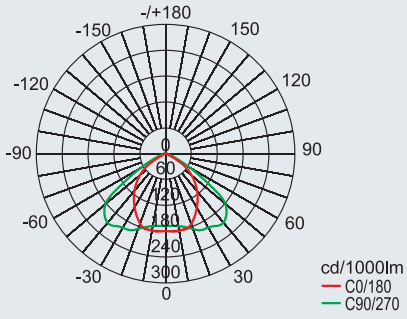
HRT81 - □ - □ □

- Lamp power (W)
- Lamp
  - HIE: Metal halide lamp
  - HSE: High pressure sodium lamp
- Enclosure type: 400, 1000
- Explosion-proof floodlights

Photometric data

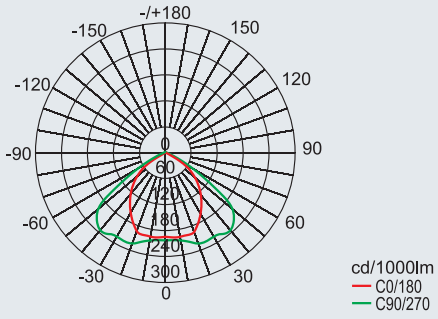
HRT81-400-□□

Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 25000 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
400W Metal halide lamp: 42500 lm
400W High pressure sodium lamp: 56500 lm
The data from Philips lamp



HRT81-1000-□□

Rated luminous flux
175W Metal halide lamp: 10500 lm
250W Metal halide lamp: 25000 lm
150W High pressure sodium lamp: 18000 lm
250W High pressure sodium lamp: 33200 lm
400W Metal halide lamp: 42500 lm
400W High pressure sodium lamp: 56500 lm
1000W Metal halide lamp: 85000 lm
1000W High pressure sodium lamp: 130000 lm
The data from Philips lamp



We can provide lighting design and data by professional lighting software DIALUX based upon simulated site situation on request

Zones 2; 21&22

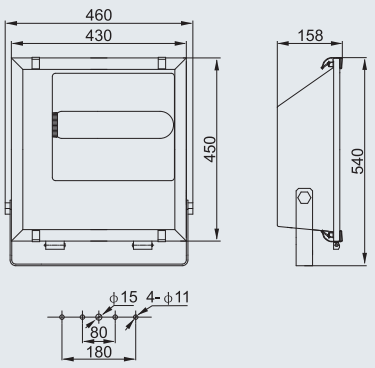
Technical data

Explosion-proof floodlights	HRT81-400-□□	HRT81-1000-□□
Explosion protection		
Gas explosion protection	Ⓔx II 3 G Ex nR IIC T3 Gc	Ⓔx II 3 G Ex nR IIC T□[1] Gc
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T190℃ Db IP66	Ⓔx II 2 D Ex t IIIC T□[1] Db IP66
		[1] See Selection table
Certificates	ATEX and IECEx (applied for)	
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31	
Material		
Enclosure	316 stainless steel	
Glass cover	Toughened glass, stands 4J impact	
Internal reflector	High-purity aluminium	
Ballast	Electromagnetic ballast, rapid starting, stable performance	
Trigger	General trigger	
Power factor	COSφ ⩾0.90 (compensated)	
Exposed fastener	Stainless steel	
Lamp		
Lamp holder	E40	
Available lamp and lamp power (W)	HIE: 175W, 250W, 400W HSE: 150W, 250W, 400W	HIE: 175W, 250W, 400W, 1000W HSE: 150W, 250W, 400W, 1000W
	Note: HPI European standard ballast is available in general	
Rated voltage	220~240V AC 50Hz (60Hz is optional)	150W~400W: 220~240V AC 50Hz (60Hz is optional) 1000W: 230V AC 50Hz (60Hz is optional)
Earthing protection	M5 (internal & external earth bolts)	
Degree of protection	IP65	
Ambient temperature	-60℃~+55℃	
Terminal	3 x 1.5~4mm²(L+N+PE)	
Cable entries	2 x Φ26: 1 x M25 x 1.5 plug, 1 x M25 x 1.5 cable gland (DQM-I Ex e, plastic)	
Applicable cable outer diameter	Φ9~Φ16 (mm)	
Weight	10.00kg	30.00kg (with ballast box)

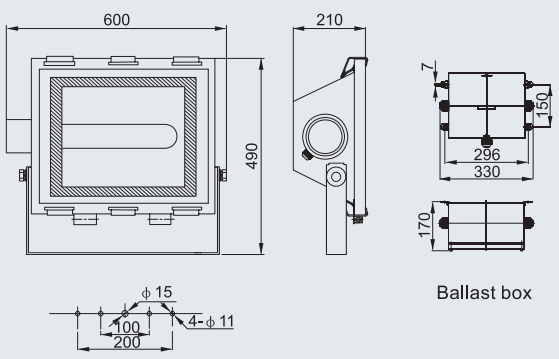
Selection table for HRT81-1000-□□

Lamp	Lamp power (W)	Temperature classes	
		Gas	Dust
HIE	175,250,400	T4	T130℃
HSE	150,250,400	T4	T130℃
HIE	1000	T2	T290℃
HSE	1000	T2	T290℃

Dimension drawings (all dimensions in mm) - subject to alteration



HRT81-400



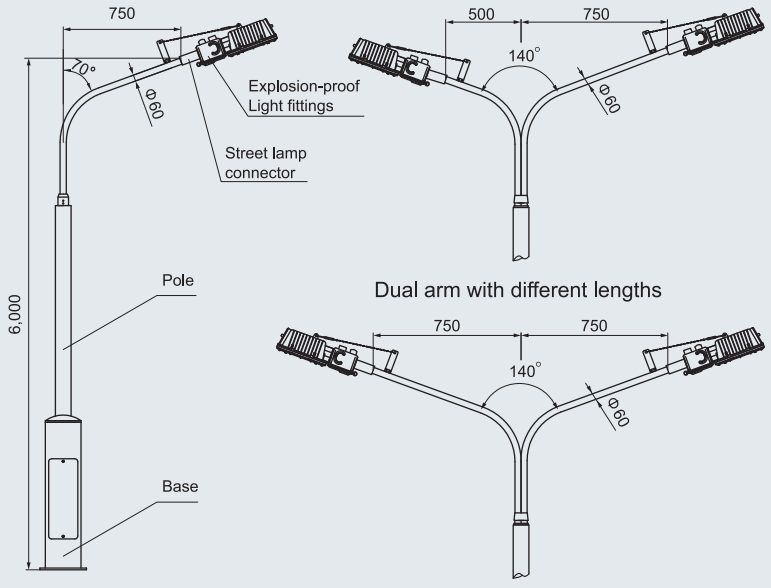
HRT81-1000



BAT53-250, BAT53-400, BAT85-400 Series
HRD91-250, HRD91-400 Series
BDD91-150, BDD91-250, BDD91-400 Series
BAT86 Series, BnT81 Series, HRT81 Series
Explosion-proof Street Lamps

- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Please refer to mounting schematic diagram to select right lamp and mounting types on request of job site.
- Please refer to this catalogue for detailed technical data and ordering information of each light fitting.
  Note: If BAT53-250 type street lamp is required, please specify when ordering.
- The street lamp is supplied without pole; please specify when ordering.

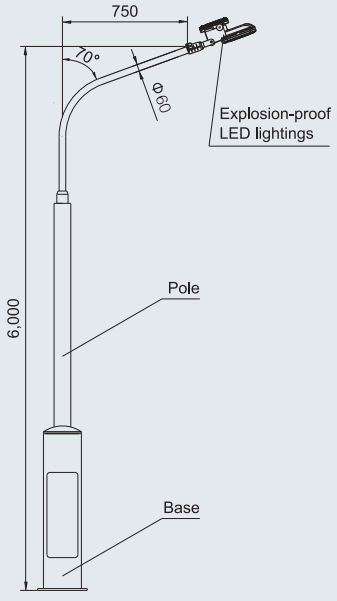
Mounting schematic diagram of bent arm type street lamp



Single arm

Dual arm with the same length

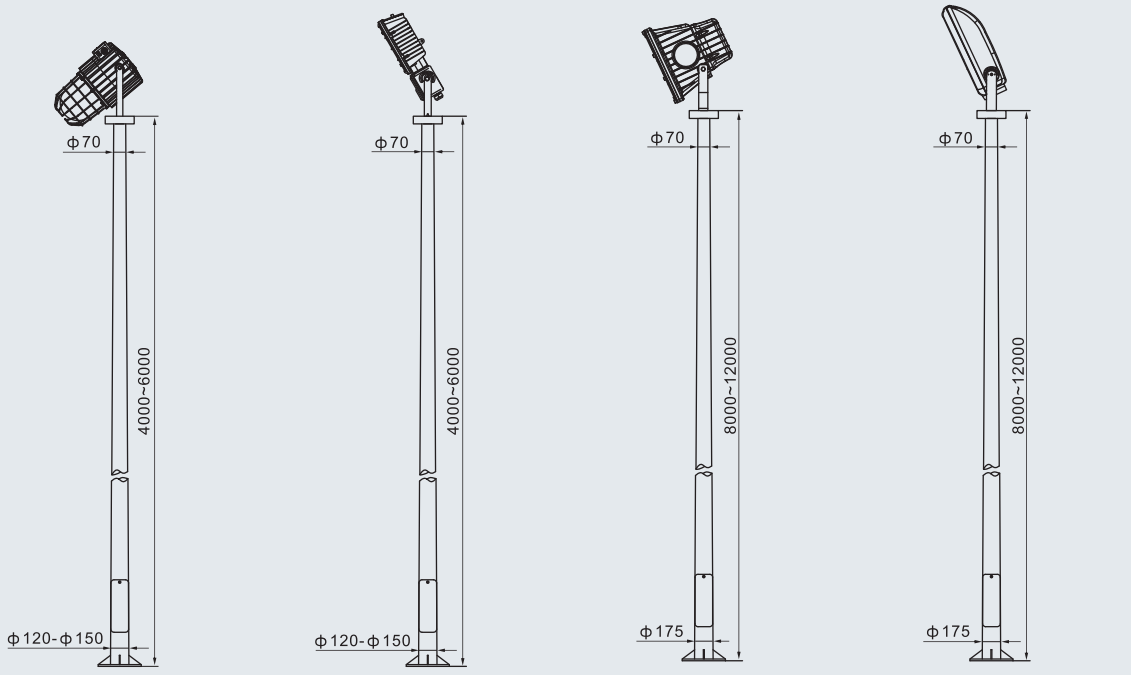
BAT53-250 series



BAT86 series

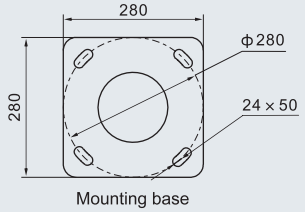
Zones 1&2; 21&22

Mounting schematic diagram of platform type street lamp



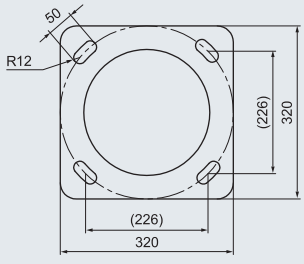
HRD91, BDD91series | BAT53-250 series | BAT53-400, BAT85 series | BnT81-400, HRT81 series

Reference diagram of street lamp mounting base



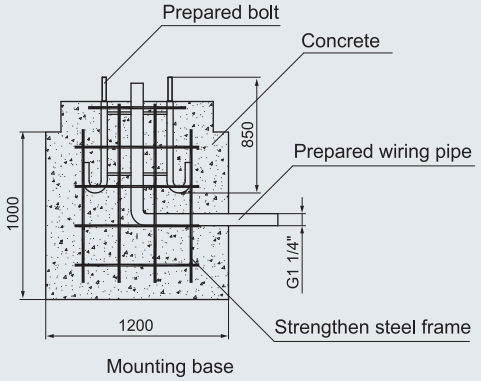
Mounting base

Used for: platform street lamp, the height of the pole: 6m to 9m



Mounting base

Used for:
1. Bent arm type street lamp.
2. Platform type street lamp, the height of the pole: 10m to 12m.



Mounting base

Ballasts
BAZ51 Series Explosion-proof Ballasts



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
- Applicable to lamp (max. 400W) of HIE, HSE and HME.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).
- Electromagnetic ballast, rapid starting, stable performance.

Catalogue number logic

BAZ51 - □ □

- Lamp power (W)
- Lamp
  - HSE: High pressure sodium lamp
  - HME: High pressure mercury lamp
  - HIE: Metal halide lamp
- Explosion-proof ballasts

Selection table

Type/Ordering code	Available lamp Power(W)	Weight (kg)	Enclosure	Type/Ordering code	Available lamp Power(W)	Weight (kg)	Enclosure
BAZ51-HIE 70	HIE 70	5.65	I	BAZ51-HSE 150	HSE 150	6.60	I
BAZ51-HIE 100	HIE 100	6.25	I	BAZ51-HSE 250	HSE 250	6.95	II
BAZ51-HIE 150	HIE 150	6.55	I	BAZ51-HSE 400	HSE 400	8.65	II
BAZ51-HIE 175	HIE 175	6.60	I	BAZ51-HME 80	HME 80	5.60	I
BAZ51-HIE 250	HIE 250	6.60	I	BAZ51-HME 125	HME 125	6.25	I
BAZ51-HIE 400	HIE 400	8.70	II	BAZ51-HME 175	HME 175	6.60	I
BAZ51-HSE 70	HSE 70	5.65	I	BAZ51-HME 250	HME 250	6.50	I
BAZ51-HSE 100	HSE 100	6.25	I	BAZ51-HME 400	HME 400	8.65	II

Note: The power factor is more than 0.90 while equipped with compensation capacitor.

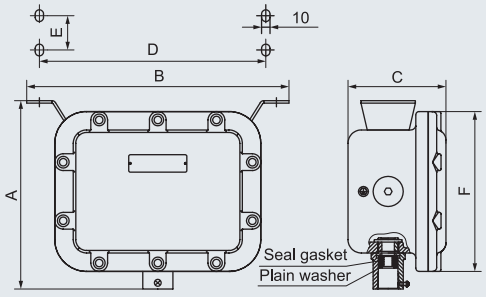
Zones 1&2; 21&22

Technical data

Explosion-proof ballasts BAZ51-□□

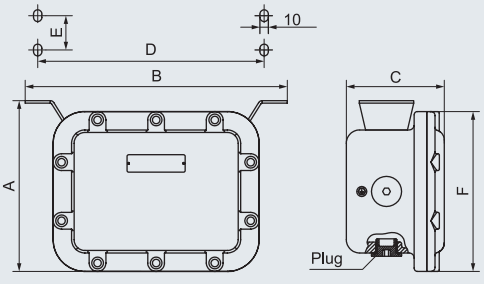
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 06 ATEX 6019; IECEx LCI 08. 0002
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Exposed fastener	Stainless steel
Available lamp	High pressure sodium lamp (HSE): 70W, 100W, 150W, 250W, 400W High pressure mercury lamp (HME): 80W, 125W, 175W, 250W, 400W Metal halide lamp (HIE): 70W, 100W, 150W, 175W, 250W, 400W Note: HPI European standard ballast is available in general
Rated voltage	220~240V AC 50Hz (60Hz is optional) Note: other voltage on request.
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-60℃~+60℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Cable entries	3 x M25 x 1.5 plugs for independent type 2 x M25 x 1.5 plugs for block type With seal gasket and plain washer at bottom entries
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure	Size(mm)					
	A	B	C	D	E	F
I	215	288	117	258	41	191
II	230	313	137	283	41	206

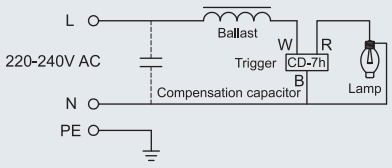
Outline 1 (For block mounting)



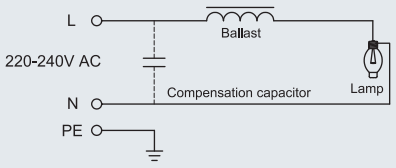
Enclosure	Size(mm)					
	A	B	C	D	E	F
I	204	288	117	258	41	191
II	229	313	137	283	41	206

Outline 2 (For independent mounting)

Schematic diagram of light fittings and ballasts



Schematic diagram 1 (For HSE or HIE)



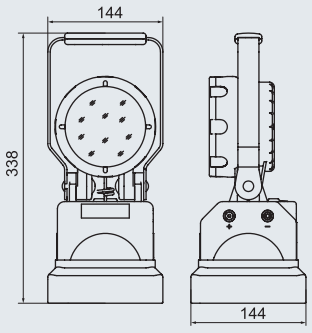
Schematic diagram 2 (For HME)



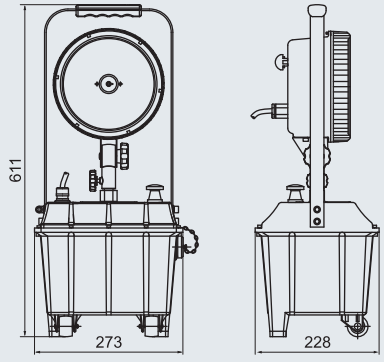
HRD305 Portable Searchlight
HRD309E Searchlight
HRD502A Strong Working Light
HRD318 Explosion-proof LED Hand Lamps
BSX-60 Series Explosion-proof Incandescent Hand Lamps

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
  - Class I, Division 2, Groups A, B, C, D

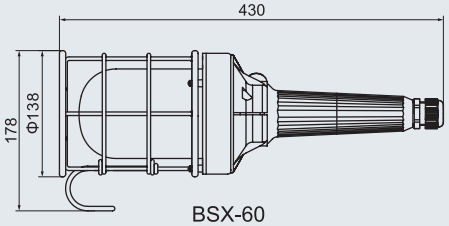
Dimension drawings (all dimensions in mm) - subject to alteration



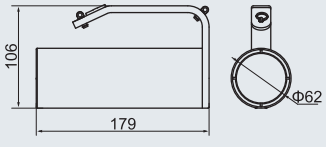
HRD309E



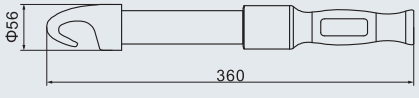
HRD502A



BSX-60



HRD305



HRD318

Zones 1&2; 21&22

Hand Lamps
HRD305 Portable Searchlight



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups A, B, C, D
- Safe and reliable: the product with reliable explosion-proof performance, can safely and reliably work in various combustible areas, the battery is equipped with PTC thermistor and temperature fuse; double-protected circuit, safety performance enhanced.
- Efficient and energy-saving: memory-free battery, with long service life, low auto-discharge rate, economic and environmental friendly, solid efficient LED lamp, low energy consumption and long service life.
- Waterproof and damage-proof: the enclosure is made of imported alloy with high strength, excellent strong impact resistant performance, unique sealing type, with very good water-proof performance.
- Anti-strong interference: scientific module driving circuit, strong performance of anti-shock and anti-electromagnetic interference.
- Heat resistant: LED radiator and battery are effectively isolated, which improves the stability of the light.
- Intelligent control: pulse dimming technology, strong light and working light can be changed at random, with battery detection indicator, which can detect the working condition at any time, intelligent charger is with protection circuit.
- Portable and flexible: small volume, light weigh, several types of handling like portable and on shoulder, meet different working requirement.

Technical data

Portable Searchlight HRD305

Explosion protection	
Gas explosion protection	Ex II 2 G Ex d ia IIC T6 Gb
Dust explosion protection	Ex II 2 D Ex tb IIIC T80℃ Db IP68
Certificates	LCIE 13 ATEX 3089X; IECEx CQM 13.0026X; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
Rated voltage	14.8V
Rated capacity	2Ah
Lamp(LED)	
Rated power	9W / 3W
Current of strong light	900mA
Continuous working time	
Strong light	⩾8h
Working light	⩾16h
Charging time	⩾8h
Charging voltage	100~240V AC, 50/60Hz
Service life of battery	about 1000 times cycling
Degree of protection	IP68
Weight	790g

Zones 1&2; 21&22

Hand Lamps
HRD309E Searchlight



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 2
  Zone 21 and Zone 22
  Class I, Zone 2
  Class I, Division 2, Groups A, B, C, D
- Safe and reliable: the product with good explosion-proof performance and antistatic effect, can safely and reliably work in various combustible areas.
- Efficient and energy-saving: LED solid lamp, low energy consumption, high luminous efficacy, long service life, maintenance free and no subsequent usage cost, memory-free battery is recyclable, pollution-free.
- Waterproof and damage-proof: the light adopts whole-sealing craft, applicable in damp and severe atmosphere, special alloy enclosure makes sure the light can resist strong shock and impact.
- Intelligent control: the light is with two kinds of working modes: strong light and working light, switch is controlled by intelligent chip,the strong light and weak light can be changed at random, single-chip control; with battery display and special protection circuit, with protection function of anti-over charging, over discharging and short circuit, reliably protect the battery and prolong the service life.
- Convenient and durable: unique lamp cap; lighting angle can be adjusted within the scope of -45°~ 55°, no lighting dead angle (lighting range of strong light: 800m, effective distance: 300m, suitable for long-distance searching and lighting in large area of close range), light weight, portable type, horizontal type, hang type, magnetic absorption, etc, convenient to use; the switch is with anti-incorrect operation function.

Technical data

Searchlight HRD309E

Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex nA nR IIC T4 Gc
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	EPT 16 ATEX 2503X; IECEx CQM 16.0008X
Conformity to standards	EN 60079-0, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-15, IEC 60079-31
Rated voltage	12V
Rated capacity	4Ah
Lamp(LED)	
Rated power	9W / 3W
Average service life	100000h
Continuous working time	
Strong light	⩾8h
Working light	⩾18h
Charging time	⩾8h
Charging voltage	100~240V AC, 50/60Hz
Service life of battery	about 1000 times cycling
Degree of protection	IP66
Weight	1.9kg

Zones 2; 21&22

Hand Lamps
HRD502A Strong Working Light



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Safe and reliable: the product with good explosion-proof performance, can safely and reliably work in various combustible areas.
- Efficient and energy-saving: special gas discharging lamp; high luminous efficiency, luminous flux is 5 times of that of halogen lamp with the same power, illumination is 3 times of 100W halogen bulb, service life is 5-10 times of that of normal halogen lamp, with the same brightness, the power consumption is 15% of that of normal halogen lamp, good anti-shock effect, small heating value, safer and more reliable.
- Waterproof and damage-proof: the light adopts whole-sealing craft, can work normally when in water, special alloy enclosure makes sure the light can resist strong shock and impact.
- Economic and environmental friendly: the memory-free battery can be charged at any time, after charging fully and laid aside for a year, the reserve of electricity is not less than 80% when it is full, for two years, it is not less than 50%, low-voltage discharging protection circuit is set; reliably protect the battery and prolong the service life.
- Convenient and durable: unique lamp cap, lighting angle can be adjusted at random, there are wheels at the bottom, easy to move and work.
- Other performances: normally, floodlight is provided; spotlight is on request.

Technical data

Strong working light HRD502A

Explosion protection	Ex II 2 G Ex d e IIC T4 Gb
Certificates	LCIE 12 ATEX 3081X; IECEx CQM 12.0040X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Rated voltage	24V
Rated capacity	20Ah
Lamp	Xenon lamp
Working voltage	24V
Rated power	35W
Luminous flux	3200lm
Average service life	3000h
Continuous working time	⩾10h
Charging time	⩾12h
Charging voltage	100~240V AC, 50/60Hz
Service life of battery	about 1000 times cycling
Degree of protection	IP65
Weight	23kg

Zones 1&2

Hand Lamps
HRD318 Explosion-proof LED Hand Lamps



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- LED lamp: 8W
- Handle in copper-free aluminium, sheath is of high-quality NBR, waterproof and strong impact resistance.
- Transparent cover: PC with diffusant, 90%light transmission, soft light and without glaring.
- Two kinds of working modes, switch is controlled by intelligent chip, the strong light and weak light can be changed at random.
- Small volume, light weight, delicate structure, portable type and hang type etc. Convenient to carry, meet different working requirements.

Technical data

Explosion-proof LED hand lamps HRD318

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface
Handle	Copper-free aluminium, powder coated surface
Sheath	NBR (Nitrile butadiene rubber)
Exposed fastener	Stainless steel
Lamp	
Available lamp	LED lamp : 8W
Working voltage	AC 36V 50/60Hz
Degree of protection	IP66
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Weight	2.35kg

Zones 1&2; 21&22

Hand Lamps
BSX-60 Series Explosion-proof Incandescent Hand Lamps

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Incandescent lamps: Max. 60W
- Cable on request
- Handle in plastic, with control pushbutton
- Powder coated wire guard, white
- Toughened glass cover resistant to temperature changes
- Movable transformer on request (see P3/46~47)



Technical data

Explosion-proof incandescent hand lamps **BSX-60**

Explosion protection	Ⓔx II 2 G Ex d e IIC T4
Certificates	LCIE 07 ATEX 6028; IECEx CQM 08.0015
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Material	
Enclosure	Copper-free aluminium, powder coated surfacce, yellow (RAL1021)
Handle	Plastic, black
Wire guard	Powder coated carbon steel, white
Exposed fastener	Stainless steel
Lamp	
Lamp holder	E27
Available lamp	Incandescent lamp: 25W, 40W, 60W; LED: 3W, 5W, 8W
Rated voltage	Max. 230V
Protection class	II (Protection against electric shock)
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Cable entries	1 x M25 x 1.5 cable gland (DQM-I Ex e, plastic)
Available cable outer diameter	Φ9~Φ16 (mm)
Weight	2.35kg

Zones 1&2

Local, Caution Spotlight Fittings
BAJ52-20 Series Explosion-proof Emergency Light Fittings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups C, D
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).
- Lighting angle can be adjusted.
- Low-power halogen tungsten lamps, with reflector to increase lighting intensity.
- Emergency device with Ni-MH batteries, charging automatically; when power supply is cut off, the emergency device starts to work; with overcharge and overdischarge protection.
- Toughened glass cover resistant to temperature changes.

WAROM

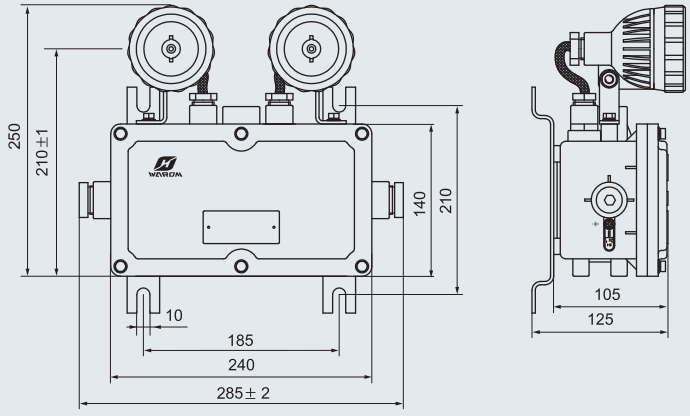
Zones 1&2

Technical data

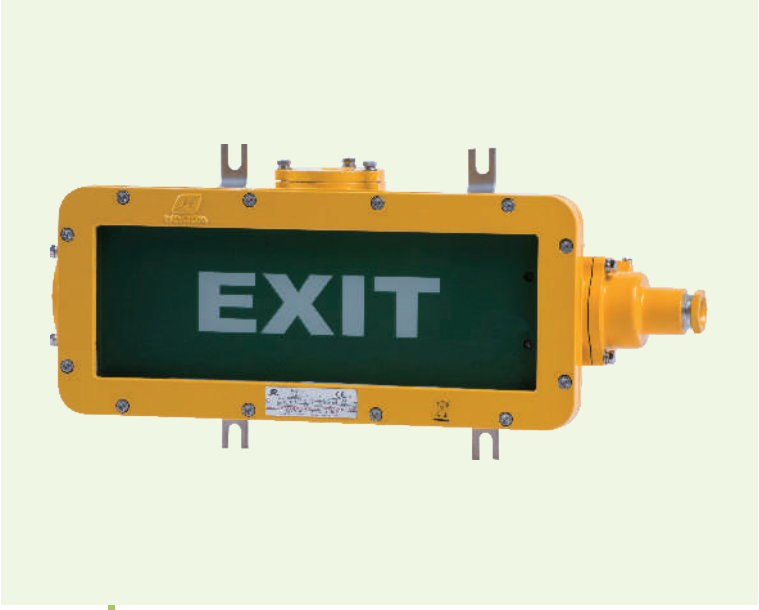
Explosion-proof emergency light fittings BAJ52-20

Explosion protection	Ⓔx II 2 G Ex d IIB T4
Certificates	LCIE 07 ATEX 6086; IECEx CQM 08. 0001
Conformity to standards	EN 60079-0, EN 60079-1 IEC 60079-0, IEC 60079-1
Material	
Enclosure	Copper-free aluminium, powder coated surfacce, yellow (RAL1021)
Exposed fastener	Stainless steel
Rated voltage	220~240V AC 50/60Hz
Lamp	
Available lamp	Halogen tungsten lamp (LED on request)
Lamp power (W)	2 x 10W (LED lamp power: 2 x 1W)
Emergency time	90min
Rated luminous flux	Halogen tungsten lamp: 2 x 100lm (LED lamp: 2 x 90lm)
Battery	
Description	Ni-MH battery
Rated capacity	6Ah
Rated voltage	6V
Charging current	300mA
Discharging current	1000mA
Charging time	24h
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Cable entries	2 x M25 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Weight	5.05kg

Dimension drawings (all dimensions in mm) - subject to alteration



Local, Caution Spotlight Fittings
BAYD Series Explosion-proof Emergency Exit Light Fittings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
- Lighting both in normal condition and emergency condition; When power supply is cut off, the emergency device starts to work; with overcharge, overdischarge protection and short circuit protection.
- With test pushbutton, convenient to check the emergency function. Press the test pushbutton, the light will switch into emergency condition.
- Ultra-bright LED lamp, low power consumption and long service life up to 50,000 hours; energy saving and environmental protection.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL 1021).
- Toughened glass sheet resistant to temperature changes.

Catalogue number logic

BAYD - □ □

- Sign code: A~G
- Mounting
  - G: pendant pole type
  - X: ceiling type
  - B: wall type
- Explosion-proof emergency exit light fittings

Sign code type A-G



Type A



Type B



Type C


Type D



Type E



Type F



Type G

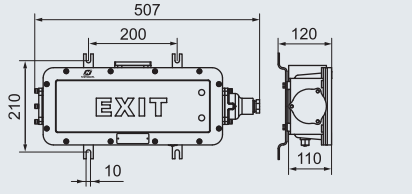
Zones 1&2

Technical data

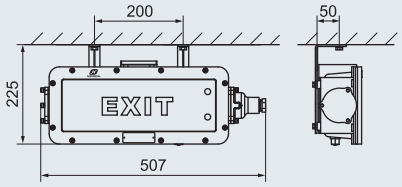
Explosion-proof emergency exit light fittings BAYD-□□

Explosion protection	Ⓔx II 2 G Ex d IIC T6
Certificates	
For gas explosion protection	LCIE 07 ATEX 6005X; IECEx LCI 08.0012X RU C-CN.ГБ05.B.00344 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1 IEC 60079-0, IEC 60079-1
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow(RAL1021)
Exposed fastener	Stainless steel
Rated voltage	220~240V AC 50/60Hz
Lamp	LED lamp (working voltage DC 3.6V)
Power consumption	2W
Emergency time	180min
Battery	
Rated capacity	1400mAh
Charging time	24h
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	1 x M25 x 1.5 for wall type and ceiling type, 2 x M25 x 1.5 for pendant pole type
Cable gland	1. For wall type and ceiling type, supplied with seal gasket and gland nut; Cable gland on request. 2. For pendant pole type, supplied with BHD51-F explosion-proof junction box, (copper-free aluminium); M25 x 1.5 plug or Ex d cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Available cable outer diameter	Φ10~Φ14 (mm)
Weight	6.40kg

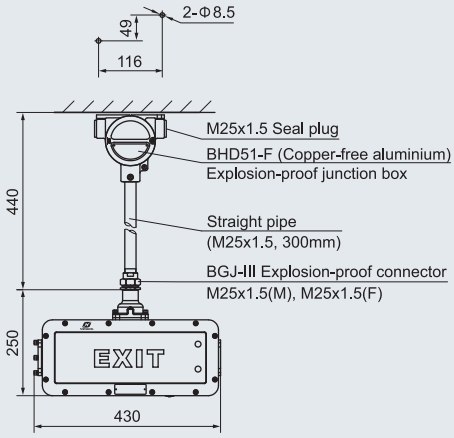
Dimension drawings (all dimensions in mm) - subject to alteration



BAYD-B□



BAYD-X□



BAYD-G

Local, Caution Spotlight Fittings
BAYD85 Series Explosion-proof Emergency Exit Light Fittings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups C, D
- Lighting both in normal condition and emergency condition; When power supply is cut off, the emergency device starts to work; with overcharge, overdischarge protection and short circuit protection.
- Designed with test button and sleep button. The test button is for testing. Press the button, lamp shall automatically enter into emergency status. The sleep button is to stop the lamp source output, press this button, the lamp turned off, re-press the button, lamp on and return to work.
- Ultra-bright LED lamp, low power consumption and long service life up to 50,000 hours; energy saving and environmental protection.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL 1021).
- Toughened glass sheet resistant to temperature changes.

Catalogue number logic

BAYD85 - □□

- Sign code: A~G
- Mounting
  - G: pendant pole type
  - X: ceiling type
  - B: wall type
- Explosion-proof emergency exit light fittings

Sign code type A-G



Type A



Type B



Type C


Type D



Type E



Type F



Type G

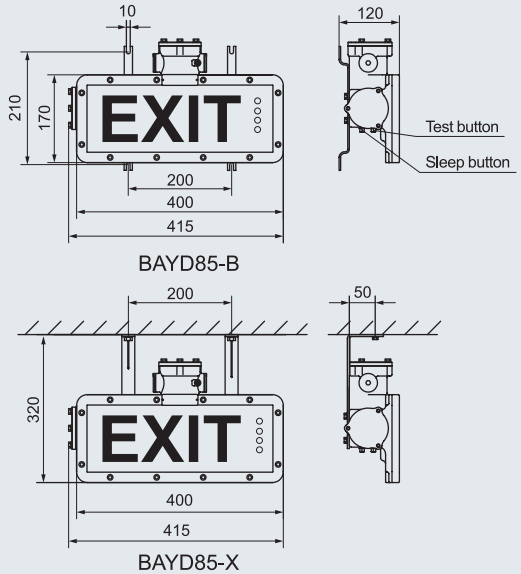
Zones 1&2; 21&22

Technical data

Explosion-proof emergency exit light fittings BAYD85-□□

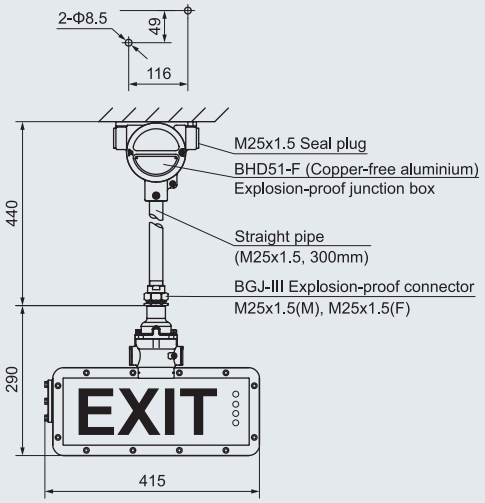
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIB T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	EPT 16 ATEX 2558X; IECEx CQM 16.0032X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow(RAL1021)
Exposed fastener	Stainless steel
Rated voltage	100~300V AC 50/60Hz
Lamp	LED lamp (working voltage DC 3.6V)
Power consumption	4W
Emergency time	180min
Battery	
Rated capacity	800mAh
Charging time	24h
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67 (optional)
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Cable entries	2 x M25 x 1.5 plugs
Cable gland	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Weight	5.15kg

Dimension drawings (all dimensions in mm) - subject to alteration



BAYD85-B

BAYD85-X



BAYD85-G

Local, Caution Spotlight Fittings
BAK51 Series Explosion-proof Tank Inspection Vessel Light Fittings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Available for 35W or 50W halogen tungsten lamp, with high light efficiency and long service life.
- A or B mounting type is optional.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).

Catalogue number logic

BAK51 - □ / □ □

- Mounting: A: Type A; B: Type B
- Rated voltage (V): 240: 220~240V AC; 12: 12V DC
- Lamp power (W)
- Explosion-proof tank inspection vessel light fittings

Selection table

Type/Ordering code	Available lamp power (W)	Weight(kg)	Type/Ordering code	Available lamp power (W)	Weight(kg)
BAK51-35/240A	35W Halogen tungsten lamp	2.15	BAK51-50/240A	50W Halogen tungsten lamp	2.15
BAK51-35/240B		2.15	BAK51-50/240B		2.15
BAK51-35/12A		2.00	BAK51-50/12A		2.00
BAK51-35/12B		2.00	BAK51-50/12B		2.00

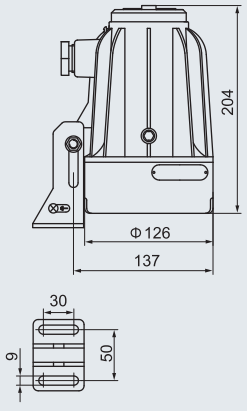
Zones 1&2; 21&22

Technical data

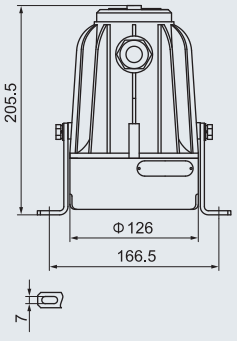
Explosion-proof tank inspection vessel light fittings BAK51-□/□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB T3 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T190℃ Db IP66
Certificates	LCIE 06 ATEX 6020; IECEx LCI 08.0007
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, impact resistance and high light transmission
Exposed fastener	Stainless steel
Lamp	
Available lamp	Halogen tungsten lamp
Lamp holder	GY6.35
Lamp power (W)	35W, 50W
Adaptable voltage	DC 12V
Rated voltage	220~240V AC 50Hz 12V DC; 24V AC/DC
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-60℃~+60℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	1 x G3/4"
Cable gland	Supplied with seal gasket and gland nut, cable gland on request.
Applicable cable outer diameter	Φ10~Φ14 (mm)

Dimension drawings (all dimensions in mm) - subject to alteration



A



B

Local, Caution Spotlight Fittings
BAK85 Series Explosion-proof LED Tank Inspection Vessel Light Fittings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Applicable lamp and power:
  LED lamps, energy-saving and long service life, 9W
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).

Catalogue number logic

BAK85 - □/□

- Rated voltage (V)
  - 265: 187~265V AC
  - 24: 24V AC/DC
  - 12: 12V AC/DC
- Lamp power (W)
- Explosion-proof LED tank inspection vessel light fittings

Selection table

Type/Ordering code	Lamp power (W)	Rated voltage (V)	Weight (kg)
BAK85-9/265	9	187~265V AC 50/60Hz	2.20
BAK85-9/24		24V AC, 24V DC	
BAK85-9/12		12V AC/DC	

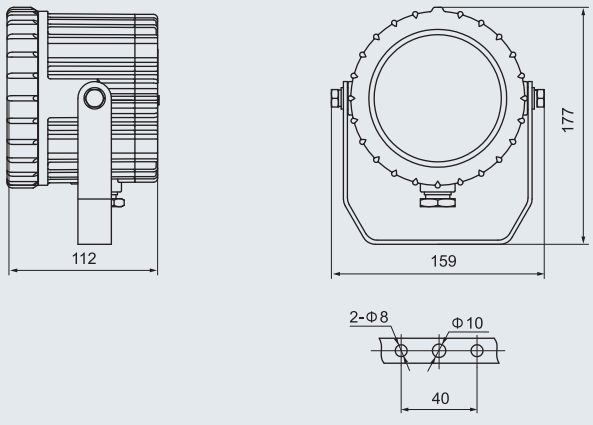
Zones 1&2; 21&22

Technical data

Explosion-proof LED tank inspection vessel light fittings BAK85-□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	ATEX and IECEx (applied for); CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Glass cover	Toughened glass, stands 4J impact
LED driver	Wide voltage input, CC-CV (constant current - constant voltage) output, power factor ≥0.95, with protection against circuit and anti-electromagnetic interference, etc.
Exposed fastener	Stainless steel
Lamp	
Lamp specification	International brand of LED module
Lamp power (W)	9W
Colour Temperature (CCT)	Cool white : 5400~6500K Note: cool white is available in general. Warm white (2700~3500K) or nature white (4700~5400K) is optional, please specify when ordering.
Rated voltage	187~265V AC 50/60Hz 24V AC, 24V DC 12V AC/DC
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	M20 x 1.5
Cable gland	Supplied with seal gasket and gland nut
Applicable cable outer diameter	Φ6~Φ12 (mm)

Dimension drawings (all dimensions in mm) - subject to alteration



Local, Caution Spotlight Fittings
BSZD81-E Series Explosion-proof Caution Spotlight Fittings



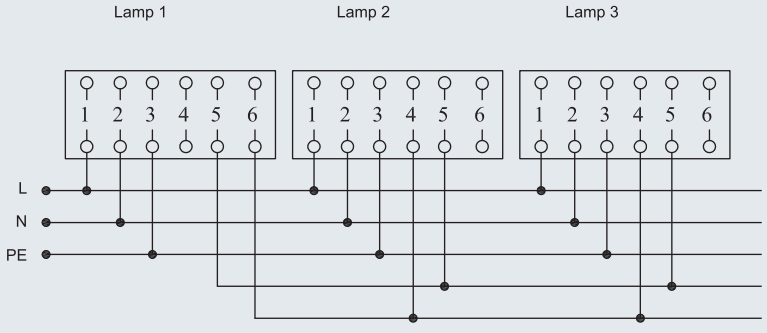
- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Ultra-bright LED lamp, low consumption and long service life up to 50,000 hours, integrated chip control with various circuit protection.
- Synchronous flashing of light fittings through signal lines.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).

Catalogue number logic

BSZD81 - E □

- T: Wireless synchronous (optional)
- Lamp: LED (low luminous intensity)
- Explosion-proof caution spotlight fittings

Wired sync connection diagram



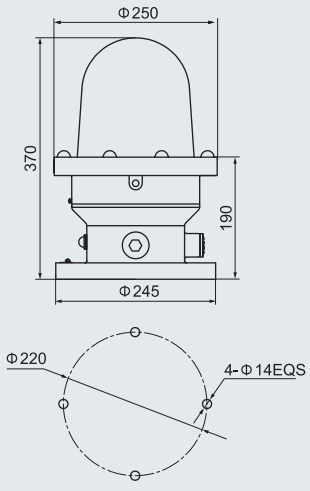
Zones 1&2; 21&22

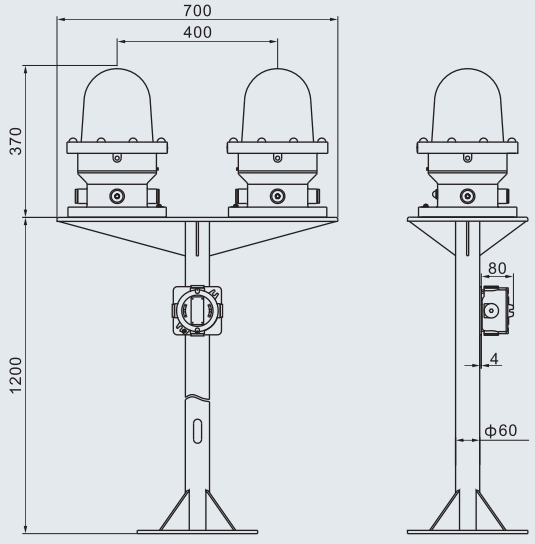
Technical data

Explosion-proof caution spotlight fittings BSZD81-E □

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP65
Certificates	EUT 14 ATEX 1155; IECEx CQM 11.0026X; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
Rated voltage	100V, 110V, 120V, 127V, 220V, 230V, 240V AC 50/60Hz
Lamp	
Lamp specification	LED
Lamp power (W)	⩽10W (continuous work)
Lamp colour	Red
Max. luminous intensity value	＞200cd
Flash frequency	16, 20, 30, 40, 60, 80, 120, 240 (times/min)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Cable entries	4 x M25 x 1.5 plugs
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~19.
Weight	10kg

Dimension drawings (all dimensions in mm) - subject to alteration





Drawings of main (spare) caution spotlight fittings

Note: The light fitting consists of two completely independent photoelectric control systems which can control the main and spare lamps respectively. Generally, the main lamp is used for night lighting, and it will be shut down automatically during the day. If the main lamp is damaged, the spare lamp will be started automatically to be substituted for main lamp.

Local, Caution Spotlight Fittings
BSZD81-C Series Explosion-proof Caution Spotlight Fittings



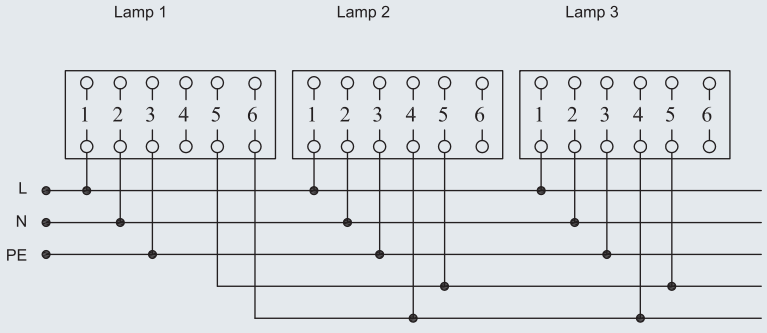
- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A, B, C, D
- Ultra-bright LED lamp, low consumption and long service life up to 30,000 hours, integrated chip control with various circuit protection.
- Synchronous flashing of light fittings through signal lines.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).

Catalogue number logic

BSZD81 - C □

- T: Wireless synchronous (optional)
- Lamp: LED (medium luminous intensity)
- Explosion-proof caution spotlight fittings

Wired sync connection diagram



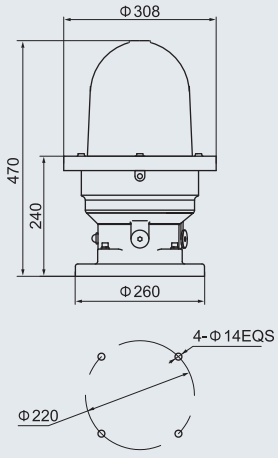
Zones 1&2; 21&22

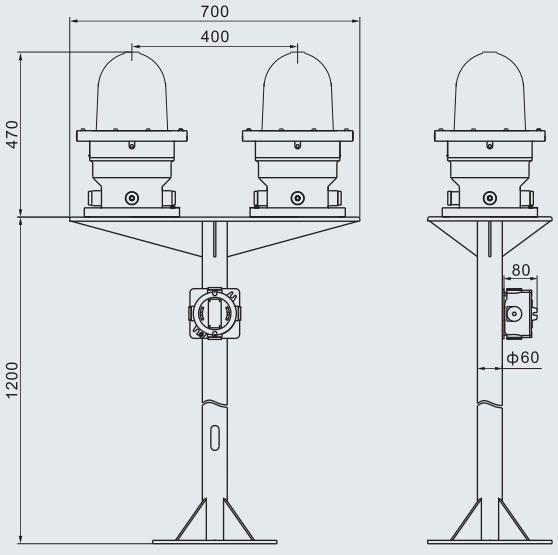
Technical data

Explosion-proof caution spotlight fittings BSZD81-C □

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP65
Certificates	EUT 14 ATEX 1155; IECEx CQM 11.0026X; KZ.7500525.22.01.00380 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
Rated voltage	100V, 110V, 120V, 127V, 220V, 230V, 240V AC 50/60Hz
Lamp	
Lamp specification	LED
Lamp power (W)	40W (continuous work)
Lamp colour	Red
Max. luminous intensity value	＞2000cd
Flash frequency	16, 20, 30, 40, 60, 80, 120, 240 (times/min)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP65
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	4 x M25 x 1.5 plugs
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~19.
Weight	13.8kg

Dimension drawings (all dimensions in mm) - subject to alteration





Drawings of main (spare) caution spotlight fittings

Note: The light fitting consists of two completely independent photoelectric control systems which can control the main and spare lamps respectively. Generally, the main lamp is used for night lighting, and it will be shut down automatically during the day. If the main lamp is damaged, the spare lamp will be started automatically to be substituted for main lamp.

Local, Caution Spotlight Fittings
BBJ81 Series Explosion-proof Audio and Visual Caution Spotlight Fittings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups A, B, C, D
- Ultra-bright LED lamp, low power consumption and long service life.
- Lamp colours: red, blue, yellow, green.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).

Catalogue number logic

BBJ81 - □

- Lamp colour
  - R: red
  - B: blue
  - Y: yellow
  - G: green
- Explosion-proof audio and visual caution spotlight fittings

Selection table

Type/Ordering code	Weight(kg)
BBJ81-R	2.60
BBJ81-B	2.60
BBJ81-Y	2.60
BBJ81-G	2.60

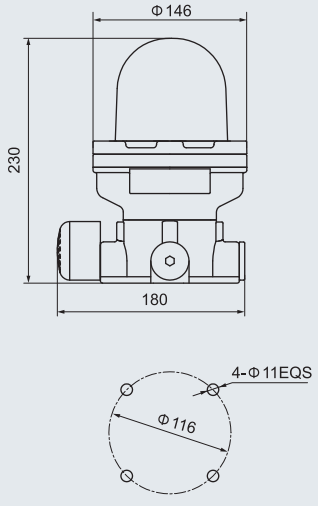
Zones 1&2; 21&22

Technical data

Explosion-proof audio and visual caution spotlight fittings BBJ81-□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d ib IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T80℃ Db IP66
Certificates	LCIE 11 ATEX 3111X; IECEx CQM 12.0035X; RU C-CN.ГБ05.B.00344 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
Rated voltage	220~240V AC 50/60Hz; 24V DC/AC
Lamp	
Lamp specification	LED
Lamp power (W)	5W
Lamp colour	Red, blue, yellow, green
Flash frequency	150 (times/min)
Sound intensity	100~120dB (R=1m)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67 (optional)
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~2.5mm^2 (L+N+PE)
Cable entries	3 x M25 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

Dimension drawings (all dimensions in mm) - subject to alteration



Local, Caution Spotlight Fittings
BJD81 Series Explosion-proof Caution Spotlight Fittings



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups A, B, C, D
- Ultra-bright LED lamp, low power consumption and long service life.
- Lamp colour: red, blue, yellow, green.
- Enclosure in copper-free aluminium, powder coated surface, yellow (RAL1021).

Catalogue number logic

BJD81 - □

- □ — Lamp colour
  - R: red
  - B: blue
  - Y: yellow
  - G: green
- BJD81 — Explosion-proof caution spotlight fittings

Selection table

Type/Ordering code	Weight(kg)
BJD81-R	2.50
BJD81-B	2.50
BJD81-Y	2.50
BJD81-G	2.50

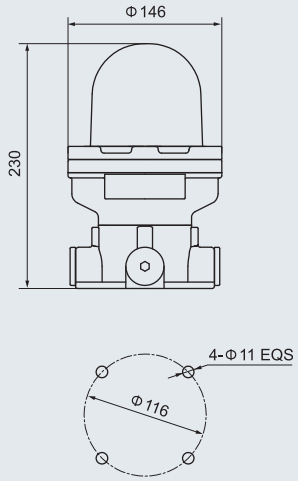
Zones 1&2; 21&22

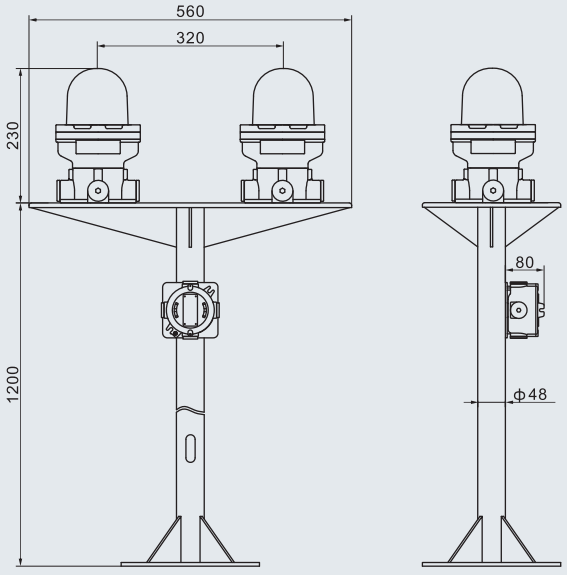
Technical data

Explosion-proof caution spotlight fittings BJD81-□

Explosion protection	
Gas explosion protection	Ⅱ 2 G Ex d ⅡC T6 Gb
Dust explosion protection	Ⅱ 2 D Ex t ⅢC T80℃ Db IP66
Certificates	LCIE 11 ATEX 3109X; IECEx CQM 12.0038X; RU C-CN.ГБ05.B.00344 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Material	
Enclosure	Copper-free aluminium, powder coated surface, yellow (RAL1021)
Transparent cover	Toughened glass, stands 4J impact
Exposed fastener	Stainless steel
Rated voltage	220~240V AC 50/60Hz; 24V DC/AC
Lamp	
Lamp specification	LED
Lamp power (W)	3W
Lamp colour	Red, blue, yellow, green
Flash frequency	150 (times/min)
Earthing protection	M5 (internal & external earth bolts)
Degree of protection	IP66, IP67 (optional)
Ambient temperature	-40℃~+55℃
Terminal	3 x 1.5~2.5mm² (L+N+PE)
Cable entries	4 x M25 x 1.5 plugs
Cable gland (optional)	DQM-Ⅱ (Ex d) or DQM-Ⅲ (Ex d) is recommended. Please see P7/20~29.

Dimension drawings (all dimensions in mm) - subject to alteration





Drawings of main (spare) caution spotlight fittings

The light fitting consists of two completely independent lamp circuit boards which can control the main and spare lamps respectively. Generally, the main lamp is working. If the main lamp is damaged, the spare lamp will be started automatically to be substituted for main lamp.

3



Installation Equipments

Contents

Installation Switches

BZM Series Explosion-proof Illumination Switches (Ex d IIC) 3/2

Junction Boxes

BHD51 Series Explosion-proof Junction Boxes (Ex d IIC) 3/4

BHD91 Series Explosion-proof Junction Boxes (Ex d IIC) 3/6

Terminal Boxes

BXJ-IIB Series Explosion-proof Terminal Boxes (Ex d IIB+H_2) 3/8

BXJ-IIC Series Explosion-proof Terminal Boxes (Ex d IIC) 3/12

BXJ-e Series Terminal Boxes (Ex e, Ex i) 3/14

BXJ8050 Series Terminal Boxes (Ex e, Ex i) 3/18

BXJ8050-20/6 Series Junction Boxes (Ex e) 3/22

BXJ-S Series Terminal Boxes (Ex e, Ex i) 3/24

Plug and Sockets

Introduction of the voltage, pole number, clock position and colour of explosion-proof plug and sockets 3/30

BCZ8060 Series Explosion-proof Plug and Sockets (Ex d e IIC) 3/32

BCZ85 Series Explosion-proof Plug and Sockets (Ex d IIC) 3/40

BCZY Series Explosion-proof Movable Switchboards (Ex d e IIC) 3/46

More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

Installation Switches
BZM Series Explosion-proof Illumination Switches



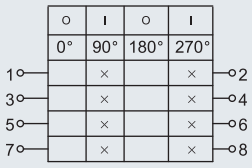
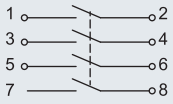
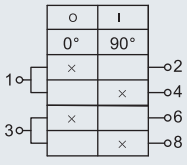
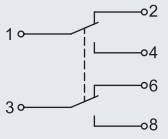
- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
- Copper-free aluminium enclosure, powder coated surface.
- Two options:
  - -On-off switch
  - -Changeover switch

Catalogue number logic

BZM - □ □

- Switch type (B: on-off switch D: changeover switch)
- Rated current (A)
- Explosion-proof illumination switches

Selection table

Type/Ordering code	Chart of contact	Corresponding switch	Weight (kg)
BZM-16B			0.85
BZM-25B			0.95
BZM-16D			0.85
BZM-25D			0.95

Zones 1&2; 21&22

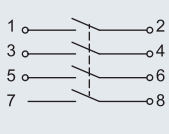
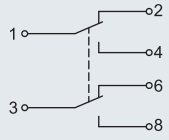
Installation Switches
BZM Series Explosion-proof Illumination Switches

Technical data

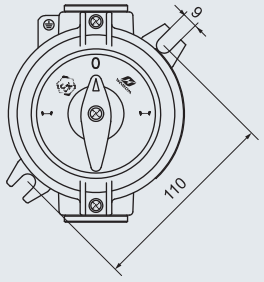
Explosion-proof illumination switches BZM-□□

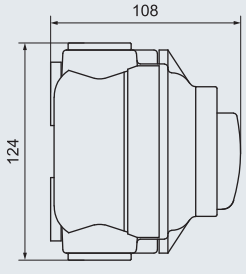
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db
Certificates	LCIE 06 ATEX 6068; IECEx LCI 08. 0008; KZ.7500525.22.01.00370 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Switch function	On-off switch or changeover switch
Exposed fastener	Stainless steel
Rated voltage	Max. 250V AC
Rated current	16A, 25A
Degree of protection	IP66
Ambient temperature	-60℃~+60℃
Internal&external earthing	M5/M5
Cable connection	3 x (2.5~4)mm^2
Cable entries	Standard 2 x M25 x 1.5 plugs
	2 x G3/4" plugs or 2 x NPT3/4" plugs on request
Cable gland(optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

Spare parts

Built-in switch	Rated voltage/current	Ordering code	Weight (kg)
 	250V/16A	30001	0.10
	250V/25A	30002	0.20
 	250V/16A	30003	0.10
	250V/25A	30004	0.20

Dimension drawings (all dimensions in mm) - subject to alteration





Junction Boxes
BHD51 Series Explosion-proof Junction Boxes



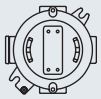
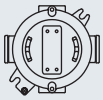
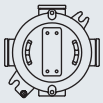
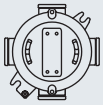
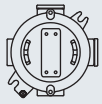
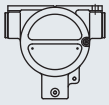
- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Six types: A, B, C, D, E, F.
- Type A, B, C, D, E in copper-free aluminium only; Type F in copper-free aluminium or cast iron.

Catalogue number logic

BHD51 - □ / □/ □

- T: cast iron (only for Type F)
- Thread (M, G, NPT)
- Outline code (A, B, C, D, E, F)
- Explosion-proof junction boxes

Selection table

Type/Ordering code	Schematic diagram	Weight (kg)	
BHD51-A/M20 x 1.5	Type A 	0.70	
BHD51-A/M25 x 1.5			
BHD51-B/M20 x 1.5	Type B 	0.70	
BHD51-B/M25 x 1.5			
BHD51-C/M20 x 1.5	Type C 	0.70	
BHD51-C/M25 x 1.5			
BHD51-D/M20 x 1.5	Type D 	0.70	
BHD51-D/M25 x 1.5			
BHD51-E/M20 x 1.5	Type E 	0.70	
BHD51-E/M25 x 1.5			
BHD51-F/M25 x 1.5	Type F 	Copper-free aluminium	0.80
		Cast iron	2.10

Zones 1&2; 21&22

Technical data

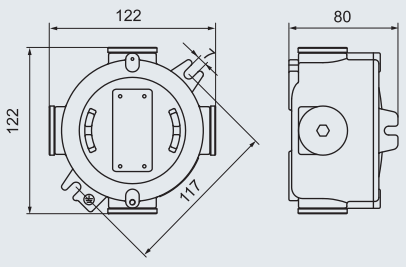
Explosion-proof junction boxes BHD51-□/□/□

Explosion protection	
Gas explosion protection	Ⅱ 2 G Ex d ⅡC T6 Gb
Dust explosion protection	Ⅱ 2 D Ex t ⅢC T80℃ Db IP66
Certificates	LCIE 11 ATEX 3005; IECEx CQM 11.0022X; RU C-CN.ГБ05.B.00345 (CU-TR) KZ.7500525.22.01.00364 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium or cast iron, powder coated surface
Enclosure colour	Yellow (RAL1021)
Exposed fastener	Stainless steel
Rated current	20A
Rated voltage	Max. 500V AC
Terminal data	
Number	6 terminals (Type A-E), 4 terminals (Type F)
Cross section of cable	0.2~2.5mm^2
Degree of protection	IP66, IP67 (optional)
Ambient temperature	-60℃~+55℃
Internal&external earthing	M4/M4
Cable entries	Standard M□ x 1.5 plug G□ plug or NPT□ plug on request (see Selection table)
Cable gland(optional)	DQM-Ⅱ (Ex d) or DQM-Ⅲ (Ex d) is recommended. Please see P7/20~29.
Main application	Type A-E are used for wiring or branching; Type F is used as accessory for pendant pole type or ceiling type light fittings.

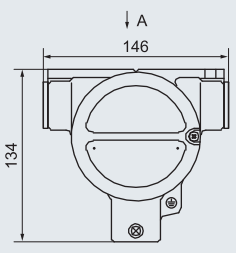
Terminals

Description	Illustration	Number	Ordering code	Weight (kg)	Note
Terminal		6	30008	0.10	For Type A, B, C, D, E
Terminal block		4	30009	0.05	For Type F

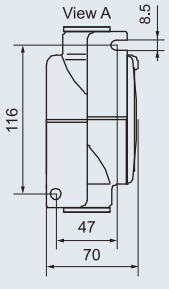
Dimension drawings (all dimensions in mm) - subject to alteration



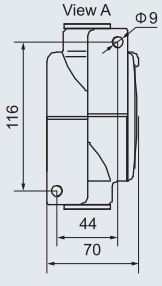
Type A, B, C, D, E



Copper-free aluminium



Cast iron



Type F

Application instruction:

1. Type F (copper-free aluminium) is used as mounting accessory for light fittings HRD61-150, HRD81, BDD81, HRD85 etc.
2. Type F (cast iron) is used as mounting accessory for light fittings HRD61-250, HRD61-400, etc.

Junction Boxes
BHD91 Series Explosion-proof Junction Boxes



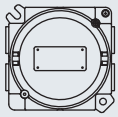
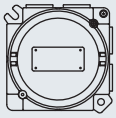
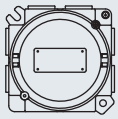
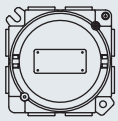
- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Four types: A, B, C, D
- Copper-free aluminium enclosure, powder coated surface.

Catalogue number logic

BHD91 - □ / □

- Thread (M, G, NPT)
- Outline code (A, B, C, D)
- Explosion-proof junction boxes

Selection table

Type /Ordering code	Schematic diagram	Top	Bottom	Left	Right	Weight (kg)
BHD91-A/M20×1.5 BHD91-A/M25×1.5 BHD91-A/M32×1.5	Type A 	-	-	2-M□×1.5	2-M□×1.5	1.20
BHD91-B/M20×1.5 BHD91-B/M25×1.5 BHD91-B/M32×1.5	Type B 	2-M□×1.5	-	-	2-M□×1.5	1.20
BHD91-C/M20×1.5 BHD91-C/M25×1.5 BHD91-C/M32×1.5	Type C 	2-M□×1.5	-	2-M□×1.5	2-M□×1.5	1.20
BHD91-D/M20×1.5 BHD91-D/M25×1.5 BHD91-D/M32×1.5	Type D 	2-M□×1.5	2-M□×1.5	2-M□×1.5	2-M□×1.5	1.20

Zones 1&2; 21&22

Technical data

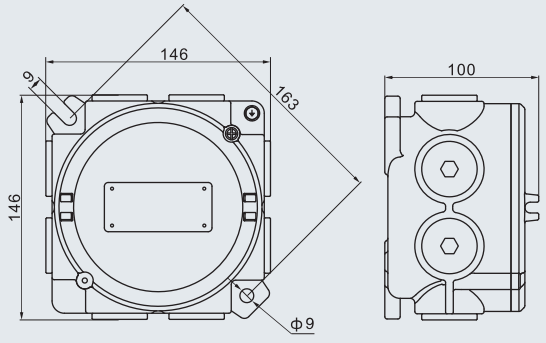
Explosion-proof junction boxes BHD91-□/□

Explosion protection	
Gas explosion protection	Ⅱ 2 G Ex db ⅡC T6 Gb
Dust explosion protection	Ⅱ 2 D Ex tb ⅢC T80℃ Db IP66
Certificates	CNEX 16 ATEX 0006; IECEx CQM 15.0061X; E495178(UL)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31 UL 1203, UL 508, UL 50, UL 50E, UL 508A CSA C22.2 No.30, CSA C22.2 No.25, CSA C22.2 No.14 CSA C22.2 No.94.1, CSA C22.2 No.94.2
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max. 500V AC
Rated current and Terminal data	

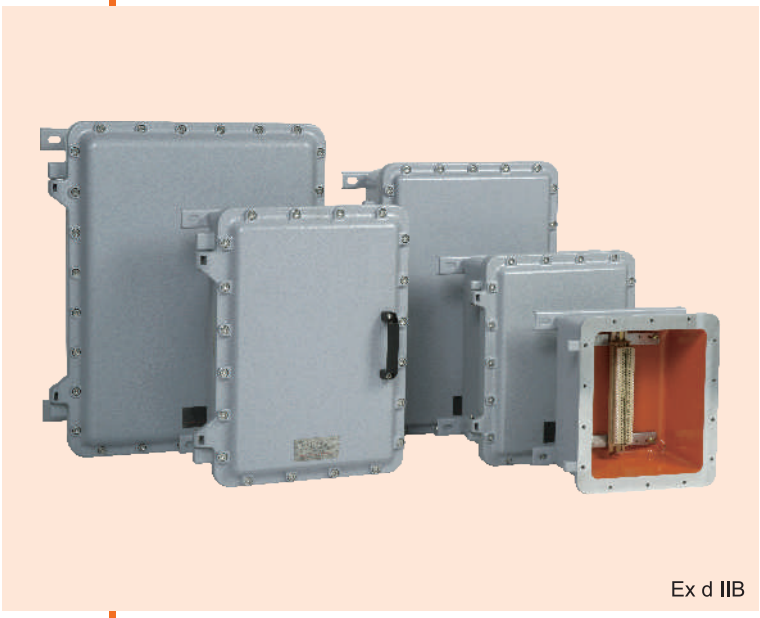
Cross section	2.5mm²	4mm²	6mm²
Rated current	24A	32A	41A
Terminal number	12	10	8

Degree of protection	IP66, IP67 (optional)
Ambient temperature	-60℃~+60℃
Internal&external earthing	M4/M5
Cable entries	Standard M□ x 1.5 plug G□ plug or NPT□ plug on request (see Selection table)
Cable gland(optional)	DQM-Ⅱ (Ex d) or DQM-Ⅲ (Ex d) is recommended. Please see P7/20~29.

Dimension drawings (all dimensions in mm) - subject to alteration



Terminal Boxes
BXJ Series Explosion-proof Terminal Boxes



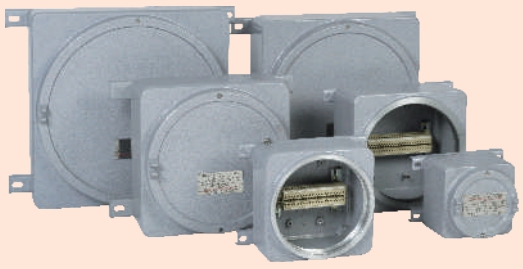
Ex d IIB

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A, B, C, D
  - Class I, Division 2, Groups A , B, C, D
- Three explosion-proof types (Ex e, Ex d IIB and Ex d IIC).
- Enclosure: Copper-free aluminium (carbon steel or stainless steel is optional), powder coated surface.
- Size and direction of cable entries can be customized on request.

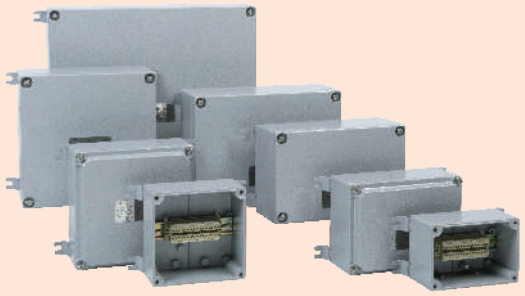
Catalogue number logic

BXJ - □- □ □

- Internal terminal type (a.....f)
- Enclosure type (I, II, III.....)
- Explosion-proof type (e, IIB, IIC)
- Explosion-proof terminal boxes



Ex d IIC



Ex e IIC

Zones 1&2; 21&22

Technical data

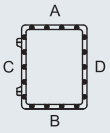
Explosion-proof terminal boxes(Ex d IIB+H2) BXJ-IIB-□□

Explosion protection								
Gas explosion protection	Ⓔx II 2 G Ex db IIB+H_2 T6/T5 Gb							
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃/T95℃ Db IP66							
Certificates	TÜV CY 17 ATEX 0205970X	IECEx CQM 14. 0061X						
	KZ.7500525.22.01.00364 (CU-TR) RU C-CN.ГБ05.B.00345 (CU-TR)							
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31							
Enclosure material	Copper-free aluminium (carbon steel or stainless steel is optional), powder coated surface							
Enclosure colour	Window grey (RAL7040)							
Terminal	International brand of terminal							
Exposed fastener	Stainless steel							
Ambient temperature	-60℃≤Ta≤+55℃->T5/T95℃ -60℃≤Ta≤+40℃->T6/T80℃							
Rated voltage	Max. 800V AC							
Rated current	Cross section	2.5mm^2	4mm^2	6mm^2	10mm^2	16mm^2	35mm^2	70mm^2	240mm^2
	Rated current	24A	32A	41A	57A	76A	125A	192A	400A
Internal&external earthing	I, II, IIb: M6/M6; III, IIIb, IV, IVb, V, Vb, VI, VIb: M6/M8; VII, VIIb: M8/M8							
Degree of protection	IP66, IP67 (optional)							
Note	Rated current > 400A on request							

Cable entry table

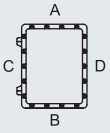
Table of max. number of possible enclosure entries with cable glands DQM-II





Size	I		II		II b		III		III b		IV		IV b	
	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 x 1.5	5	8	5	10	5	12	10	12	16	20	12	16	22	30
M25 x 1.5	5	7	5	9	5	10	9	11	12	15	11	14	15	20
M32 x 1.5	2	3	2	4	2	6	7	9	9	12	9	12	12	16
M40 x 1.5	2	2	2	3	2	4	3	4	5	6	4	5	6	9
M50 x 1.5	1	2	1	3	1	3	3	3	4	5	3	4	5	7
M63 x 1.5	1	2	1	2	1	3	2	3	2	3	3	3	3	5



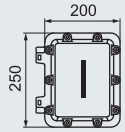
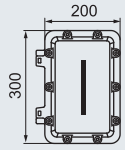
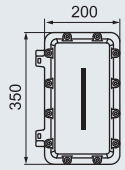
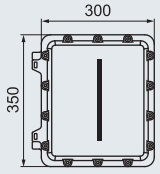
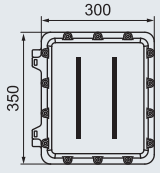
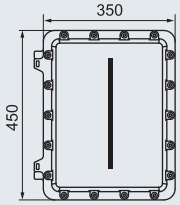
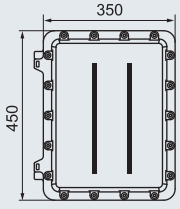


Size	V		V b		VI		VI b		VII		VII b	
	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 x 1.5	14	21	24	40	19	33	30	50	28	41	45	65
M25 x 1.5	12	19	18	27	16	28	20	36	25	35	30	44
M32 x 1.5	10	15	14	21	13	22	18	30	21	29	25	36
M40 x 1.5	4	7	8	12	7	13	11	18	11	16	15	21
M50 x 1.5	4	5	5	9	6	11	6	10	10	13	12	12
M63 x 1.5	3	5	4	7	3	5	5	9	4	6	7	10

Note: 1. No cable entries for standard design. Cable entries shall be drilled by user.
2. For cable entries:
1) Please specify the direction and size of each cable entry.
2) Cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

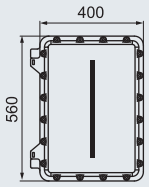
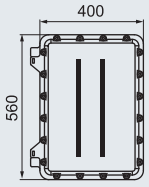
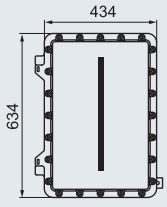
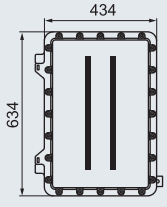
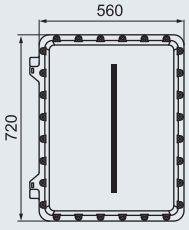
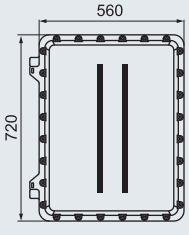
Selection table of BXJ-IIB series explosion-proof terminal boxes

Max. cross section of cable connected to terminals is 35mm^2
See table for max. number of fitted terminals

Cross section of cable (mm^2)		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	Max. dissipated power (W)	Weight (kg)
Enclosure code/Ordering code	Outline								
I		16	15	12	10	8	——	9.8	7.50
II		22	18	14	12	10	——	14.4	9.00
II b		28	25	20	15	12	——	14.4	10.00
III, IIIb		32	30	24	20	16	8	22.2	16.00 (III) 19.80 (III b)
		50	46	40	——	——	——	22.2	16.50 (III) 20.50 (III b)
IV, IVb		45	40	34	28	24	16	25.2	25.50 (IV) 30.00 (IV b)
		80	70	60	40	——	——	25.2	26.30 (IV) 31.00 (IV b)

Selection table of BXJ-IIB series explosion-proof terminal boxes

Max. cross section of cable connected to terminals is 240mm^2
See table for max. number of fitted terminals

Enclosure code/ Ordering code	Outline	Cross section of cable (mm^2) 2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	70 (g)	240 (h)	Max. dissipated power (W)	Weight (kg)
V, Vb		60	56	48	36	30	20	——	——	55.3	38.00 (V) 43.00 (Vb)
		110	100	90	70	66	——	——	——	55.3	39.00 (V) 44.00 (Vb)
VI, VIb		80	70	60	50	35	20	10	6	64.5	50.00 (VI) 56.50 (VIb)
		160	140	120	100	70	——	——	——	64.5	51.50 (VI) 58.00 (VIb)
VII, VIIb		90	80	70	60	40	25	15	9	93.1	80.00 (VII) 88.50 (VIIb)
		180	160	140	120	80	——	——	——	93.1	82.00 (VII) 91.50 (VIIb)

Technical data

Explosion-proof terminal boxes (Ex d IIC) BXJ- IIC-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP65
Certificates	Nemko 09 ATEX 1012; IECEx CQM 11.0027; KZ.7500525.22.01.00364 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium (carbon steel or stainless steel is optional), powder coated surface
Enclosure colour	Window grey (RAL7040)
Terminal	International brand of terminal
Exposed fastener	Stainless steel
Rated voltage	Max. 690V AC
Rated current	

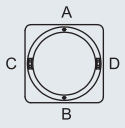
Cross section	2.5mm²	4mm²	6mm²	10mm²	16mm²	35mm²	70mm²	95mm²
Rated current	24A	32A	41A	57A	76A	125A	192A	250A

Internal&external earthing	M5/M8
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Note	Rated current > 250A on request

Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-II



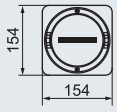
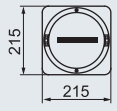
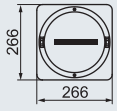
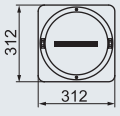
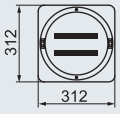
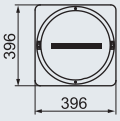
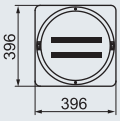
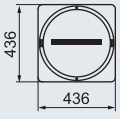
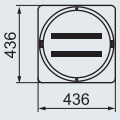


Size	I		II		III		IV		V		VI	
	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 × 1.5	3	3	4	4	10	10	11	11	15	15	17	17
M25 × 1.5	3	3	4	4	9	9	10	10	13	13	15	15
M32 × 1.5	2	2	3	3	7	7	8	8	11	11	12	12
M40 × 1.5	2	2	3	3	3	3	4	4	5	5	5	5
M50 × 1.5	/	/	/	/	3	3	3	3	4	4	5	5
M63 × 1.5	/	/	/	/	2	2	2	2	3	3	4	4

Note: 1. No cable entries for standard design. Cable entries shall be drilled by user.
2. For cable entries:
1) Please specify the direction and size of each cable entry.
2) Cable gland is optional, DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

Selection table of BXJ-IIC series explosion-proof terminal boxes

Max. cross section of cable connected to terminals is 95mm^2
See table for max. number of fitted terminals

Cross section of cable (mm^2)		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	70 (g)	95 (h)	Weight (kg)
Enclosure code/Ordering code	Outline									
I		10	8	6	—	—	—	—	—	3.50
II		20	18	15	12	10	—	—	—	6.50
III		25	24	20	15	12	6	—	—	12.00
IV		32	30	25	18	14	10	—	—	15.00
		44	40	32	22	—	—	—	—	15.50
V		48	44	38	30	20	12	6	6	21.00
		72	60	50	40	—	—	—	—	21.50
VI		60	54	44	34	26	15	8	8	24.00
		90	80	60	50	40	—	—	—	24.50

Technical data

Terminal boxes (Ex e IIC Ex ib IIC) BXJ-e-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex e IIC T6 or T5 Gb Ⓔx II 2 G Ex ib IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 13 ATEX 3027X; IECEx CQM 13.0032X; RU C-CN.ГБ05.B.00345(CU-TR) KZ.7500525.22.01.00364 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Terminal	International brand of explosion-proof terminal Ex-mark: Ⓔx II 2 GD Ex e II
Exposed fastener	Stainless steel
Rated voltage	Max. 690V AC
Rated current	

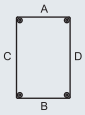
Cross section	2.5mm²	4mm²	6mm²	10mm²	16mm²	35mm²
Ex e Rated current	24A	32A	41A	57A	76A	125A
Ex ib Rated current	5A	5A	5A	-	-	-

Internal&external earthing	M6/M6
Degree of protection	IP66, IP67 (optional)
Ambient temperature	Ex e: T6 for Tamb: -50℃ ~ +40℃; T5 for Tamb: -50℃ ~ +55℃ Ex ib: T6 for Tamb: -50℃ ~ +55℃
Note	Ex e Rated current > 125A on request.

Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-I



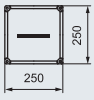
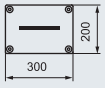
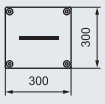
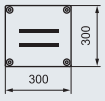
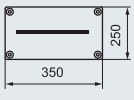
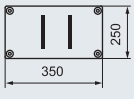
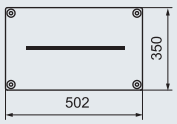
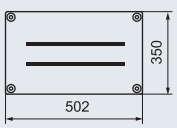


Size	I		II		III		IV		V		VI		VII		VIII	
	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 x 1.5	2	3	4	4	4	6	6	6	6	10	10	10	8	12	12	18
M25 x 1.5	2	3	3	3	3	4	4	4	5	9	9	9	7	10	10	16
M32 x 1.5	1	2	2	2	2	3	3	3	3	4	4	4	4	6	6	10
M40 x 1.5	1	2	2	2	2	3	3	3	2	3	3	3	2	3	3	5
M50 x 1.5	/	/	/	/	/	/	/	/	/	3	3	3	2	3	3	5
M63 x 1.5	/	/	/	/	/	/	/	/	/	2	2	2	2	3	3	4

Note: 1. No cable entries for standard design. Cable entries shall be drilled by user.
2. For cable entries:
1) Please specify the direction and size of each cable entry.
2) Cable gland is optional, DQM-I (Ex e) is recommended. Please see P7/17~19.

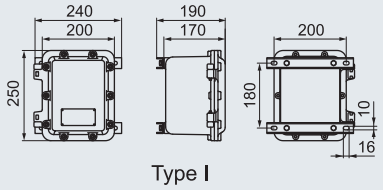
Selection table of BXJ-e series terminal boxes

Max. cross section of cable connected to terminals is 35mm^2
See table for max. number of fitted terminals

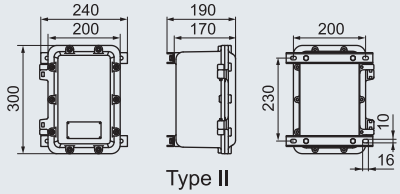
Cross section of cable (mm^2)		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	Max. dissipated power (W)	Weight (kg)
Enclosure code/Ordering code	Outline								
I		16	15	12	10	—	—	7.83	2.40
II		16	15	12	10	8	—	11.81	2.80
III		25	22	20	15	12	—	8.60	3.80
IV		25	22	20	15	12	8	10.63	5.10
V		35	30	25	20	15	—	11.34	5.80
VI		35	30	25	20	15	10	24.68	7.10
		60	50	40	—	—	—		7.50
VII		40	35	30	24	18	12	20.44	7.00
		40	40	30	—	—	—		7.00
VIII		60	55	40	30	20	15	23.75	9.50
		100	90	66	60	40	—		9.70

Dimension drawings (all dimensions in mm) - subject to alteration

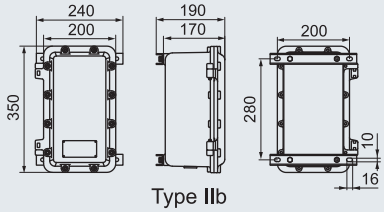
BXJ- IIB-□□



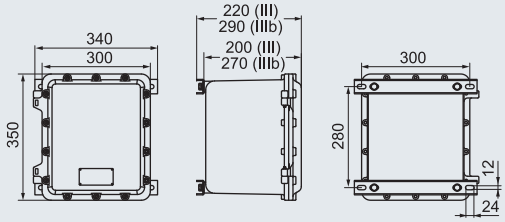
Type I



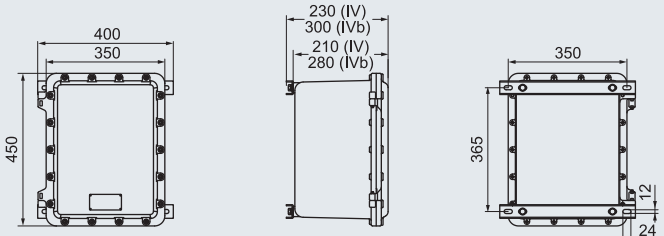
Type II



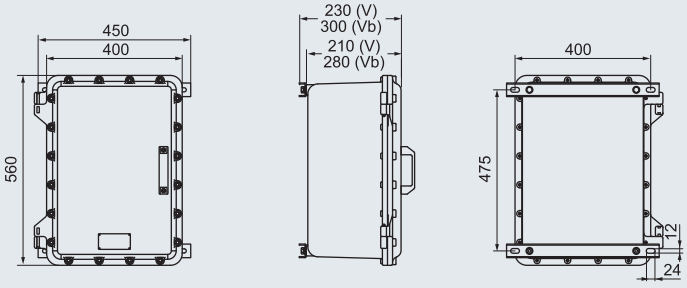
Type IIb



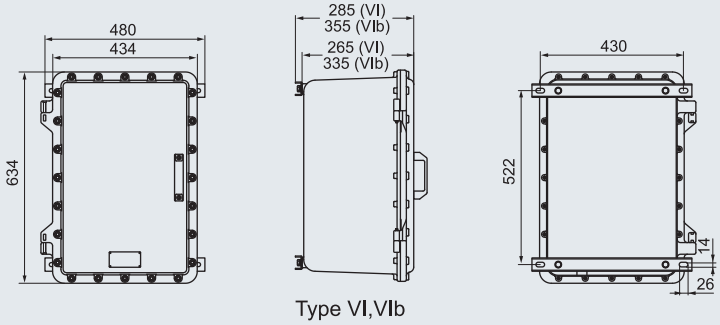
Type III,IIIb



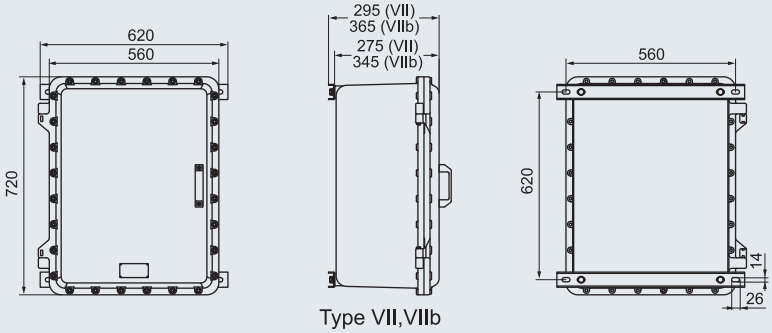
Type IV,IVb



Type V,Vb



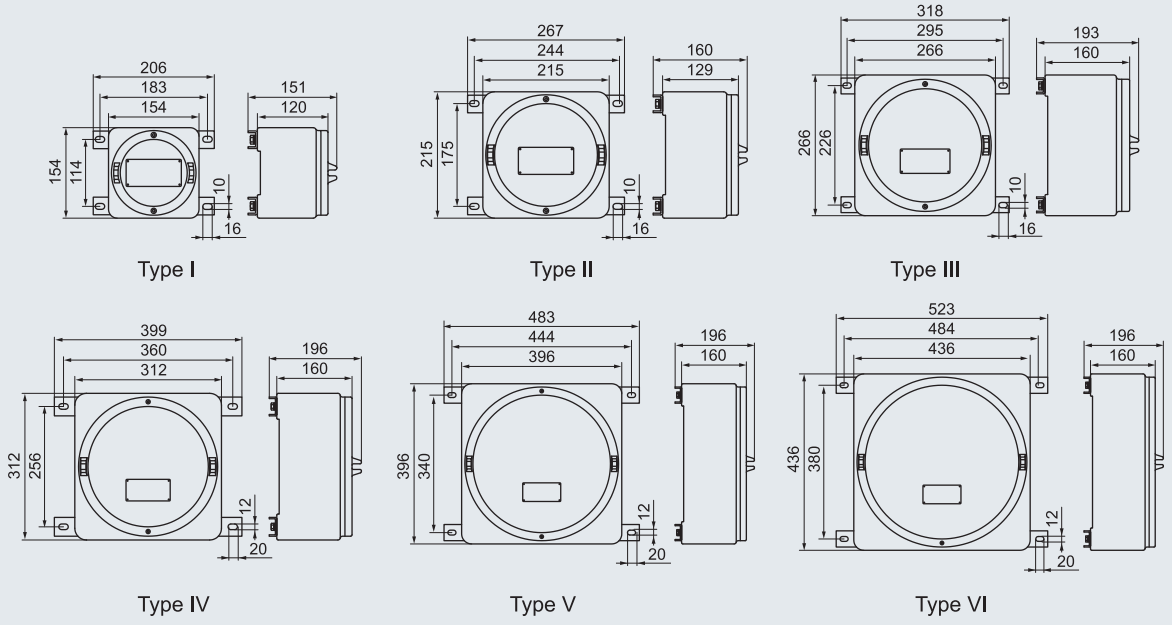
Type VI,VIb



Type VII,VIIb

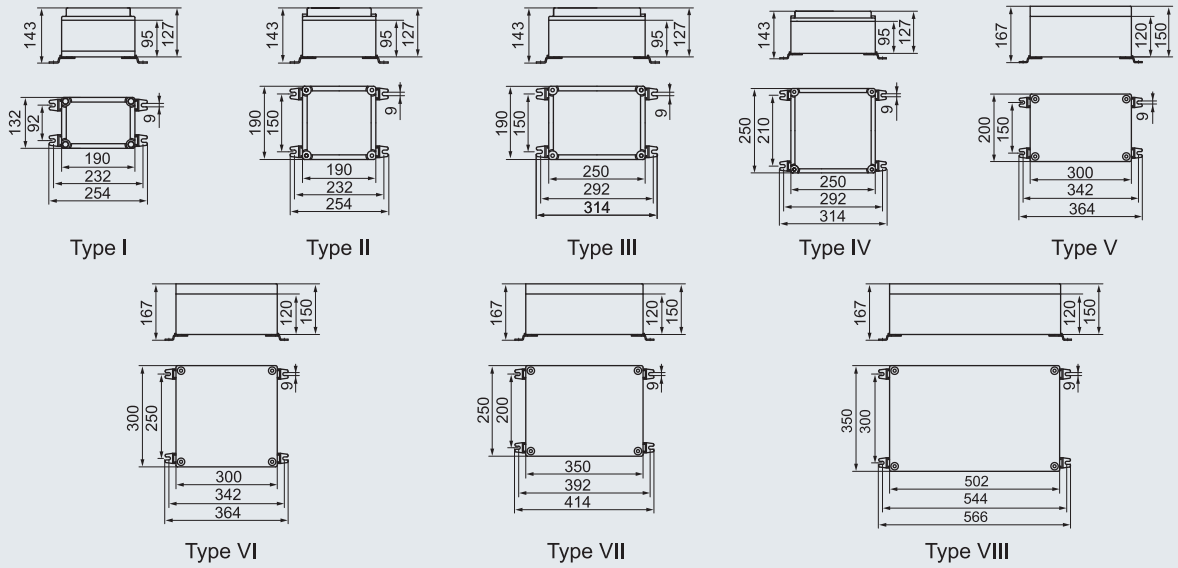
Dimension drawings (all dimensions in mm) - subject to alteration

BXJ- IIC-□□



Dimension drawings (all dimensions in mm) - subject to alteration

BXJ- e-□□



Terminal Boxes
BXJ8050 Series Terminal Boxes



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 0, Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- GRP (glass fibre-reinforced polyester resin) enclosure.
- International brand of explosion-proof terminal.

Catalogue number logic

BXJ8050 - □ □

- Internal terminal type (a, b, c, e, f)
- Enclosure type (I, II, III, IV, IVB, V, VB, VI, VII, VIIB)
- Terminal boxes (GRP)

Zones 0&1&2; 21&22

Technical data

Terminal boxes (Ex e IIC Ex ia IIC) BXJ8050-□□

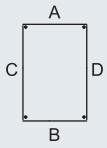
Explosion protection	
Gas explosion protection	Ex II 2 G Ex e IIC T6 or T5 Gb Ex II 1 G Ex ia IIC T6 Ga
Dust explosion protection	Ex II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 13 ATEX 3036X; IECEx CQM 13.0031X
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Terminal	International brand of explosion-proof terminal Ex-mark: Ex II 2 GD Ex e II
Exposed fastener	Stainless steel
Rated voltage	Max. 690V AC
Rated current	

Cross section	2.5mm²	4mm²	6mm²	10mm²	16mm²	35mm²
Ex e Rated current	24A	32A	41A	57A	76A	125A
Ex ia Rated current	5A	5A	5A	-	-	-

Degree of protection	IP66, IP67 (optional)
Ambient temperature	Ex e: T6 for Tamb: -40℃ ~ +40℃; T5 for Tamb: -40℃ ~ +55℃ Ex ia: T6 for Tamb: -40℃ ~ +55℃
Note	Ex e Rated current > 125A on request.

Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-I



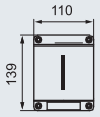
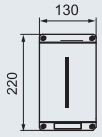
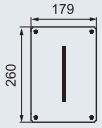
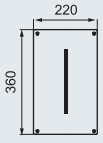
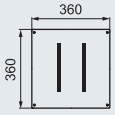
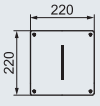
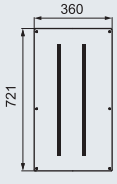


		Size								
		M20 × 1.5	M25 × 1.5	M32 × 1.5	M40 × 1.5	M50 × 1.5	M63 x 1.5	M75 x 1.5	M90 x 1.5	M115 x 1.5
I	A/B	4	2	2	/	/	/	/	/	/
	C/D	4	2	2	/	/	/	/	/	/
II	A/B	6	5	2	2	1	/	/	/	/
	C/D	10	8	4	3	2	/	/	/	/
III	A/B	10	8	6	2	2	/	/	/	/
	C/D	12	8	6	2	2	/	/	/	/
IV / IVB	A/B	12	10	6	3	2	/	/	/	/
	C/D	18	12	10	5	4	/	/	/	/
V / VB	A/B	18	12	10	5	4	/	/	/	/
	C/D	18	12	10	5	2	/	/	/	/
VI	A/B	7	4	3	2	1	/	/	/	/
	C/D	12	8	4	2	2	/	/	/	/
VII / VIIB	A/B	18	12	10	5	4	3	2	2	1
	C/D	36	24	18	8	6	6	4	4	2

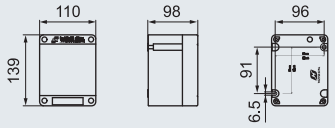
Note: 1. No cable entries for standard design. Cable entries shall be drilled by user.
2. For cable entries:
1) Please specify the direction and size of each cable entry.
2) Cable gland is optional, DQM-I (Ex e) is recommended. Please see P7/17~19.

Selection table of BXJ8050 series terminal boxes

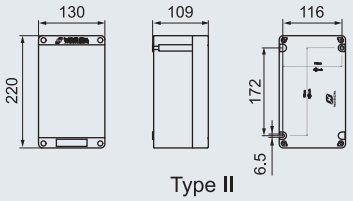
Max. cross section of cable connected to terminals is 35mm^2
See table for max. number of fitted terminals

Cross section of cable (mm^2)		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	Max. dissipated power (W)	Weight (kg)
Enclosure code/Ordering code	Outline								
I		12	10	8	—	—	—	2.30	0.80
II		25	22	18	—	—	—	6.81	1.30
III		30	28	22	18	15	—	6.50	2.10
IV		44	40	32	25	20	—	14.32	3.25
IVB									4.00
V		88	80	60	50	40	14	28.08	4.15
VB									5.20
VI		25	22	18	14	—	—	7.92	2.00
VII		180	160	130	100	80	30	25.00	14.55
VIIB									16.75

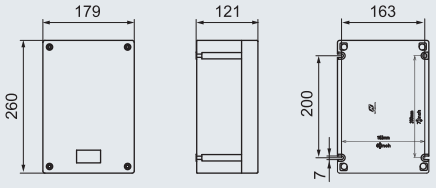
Dimension drawings (all dimensions in mm) - subject to alteration



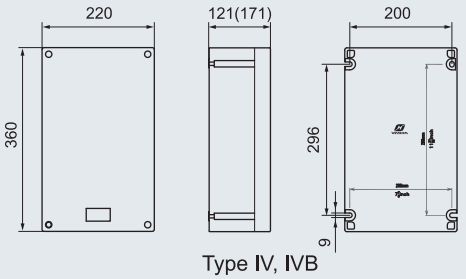
Type I



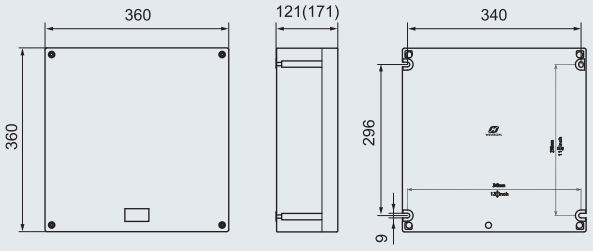
Type II



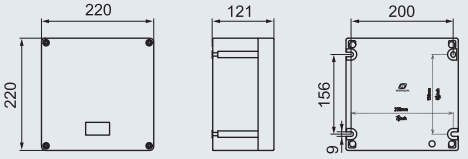
Type III



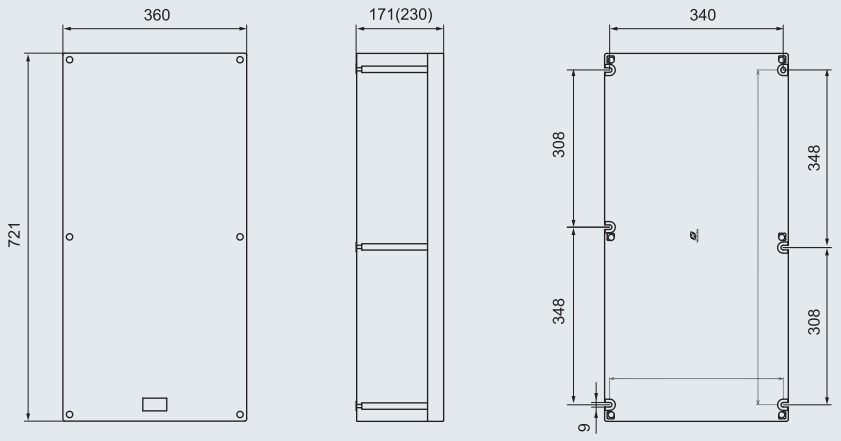
Type IV, IVB



Type V, VB



Type VI



Type VII, VIIB

Terminal Boxes
BXJ8050-20/6 Series Junction Boxes



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- GRP (glass fibre-reinforced polyester resin) enclosure.

Catalogue number logic

BXJ8050 - 20 / 6 □

- Enclosure type (A1, A2, B1, B2, C1, C2...)
- Terminal number
- Rated current
- Junction boxes (GRP)

Technical data

Junction boxes BXJ8050-20/6□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex e II T6 Gb
Dust explosion protection	Ex tD A21 T80℃ IP65
Certificates	
For gas explosion protection	PTB 15 ATEX 1016X; IECEx CQM 07.0013
For dust explosion protection	PCEC (China)
Conformity to standards	EN 60079-0, EN 60079-7
	IEC 60079-0, IEC 60079-7, IEC 61241-0, IEC 61241-1
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Terminal	6 stud terminals
Cross section of cable	0.2~4mm^2
Exposed fastener	Stainless steel
Rated voltage	Max. 500V AC
Rated current	20A
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Cable entries	Standard, see Selection table

Zones 1&2; 21&22

Terminal Boxes
BXJ8050-20/6 Series Junction Boxes

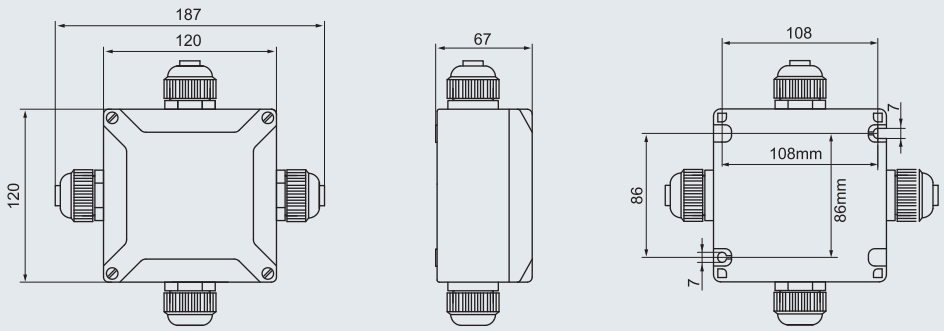
Selection table

Type/Ordering code	Schematic diagram	Cable gland	Weight (kg)
BXJ8050-20/6A1	A1 	1 x M20 x 1.5 DQM-I (plastic)	0.65
BXJ8050-20/6A2	A2	1 x M25 x 1.5 DQM-I (plastic)	
BXJ8050-20/6B1	B1 	2 x M20 x 1.5 DQM-I (plastic) 1 stopping rod	0.70
BXJ8050-20/6B2	B2	2 x M25 x 1.5 DQM-I (plastic) 1 stopping rod	
BXJ8050-20/6C1	C1 	3 x M20 x 1.5 DQM-I (plastic) 2 stopping rods	0.70
BXJ8050-20/6C2	C2	3 x M25 x 1.5 DQM-I (plastic) 2 stopping rods	
BXJ8050-20/6D1	D1 	4 x M20 x 1.5 DQM-I (plastic) 3 stopping rods	0.75
BXJ8050-20/6D2	D2	4 x M25 x 1.5 DQM-I (plastic) 3 stopping rods	
BXJ8050-20/6E1	E1 	2 x M20 x 1.5 DQM-I (plastic) 1 stopping rod	0.70
BXJ8050-20/6E2	E2	2 x M25 x 1.5 DQM-I (plastic) 1 stopping rod	
BXJ8050-20/6F1	F1 	4 x M20 x 1.5 DQM-I (plastic) 3 stopping rods	0.75
BXJ8050-20/6F2	F2	4 x M25 x 1.5 DQM-I (plastic) 3 stopping rods	
BXJ8050-20/6G1	G1 	5 x M20 x 1.5 DQM-I (plastic) 4 stopping rods	0.75
BXJ8050-20/6G2	G2	5 x M25 x 1.5 DQM-I (plastic) 4 stopping rods	
BXJ8050-20/6H1	H1 	6 x M20 x 1.5 DQM-I (plastic) 5 stopping rods	0.75
BXJ8050-20/6H2	H2	6 x M25 x 1.5 DQM-I (plastic) 5 stopping rods	
BXJ8050-20/6I1	I1 	7 x M20 x 1.5 DQM-I (plastic) 6 stopping rods	0.80
BXJ8050-20/6I2	I2	7 x M25 x 1.5 DQM-I (plastic) 6 stopping rods	

Terminals

Description	Illustration	Max. Current	Ordering code	Weight (kg)
Stud terminal		20A	30010	0.15

Dimension drawings (all dimensions in mm) - subject to alteration



Terminal Boxes
BXJ-S Series Terminal Boxes



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 0, Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Stainless steel enclosure.
- International brand of explosion-proof terminal.

Catalogue number logic

BXJ-S - □ □

- Internal terminal type (a, b, c, d, e, f, g, h, i, j)
- Enclosure type (I, II, III, IV, IVb, IVc, V, Vb, VI, VIb, VII, VIIb, VIII, VIIIb)
- Terminal boxes (Stainless steel)

Zones 0&1&2; 21&22

Technical data

Terminal boxes (Ex e IIC Ex ia IIC) BXJ-S-□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex e IIC T6 or T5 Gb Ⓔx II 1 G Ex ia IIC T6 Ga
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ or T95℃ Db IP66 Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 10 ATEX 3071X; IECEx CQM 11.0020X; E495178(UL); RU C-CN.ГБ05.B.00345 (CU-TR) KZ.7500525.22.01.00364 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-11, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-11, IEC 60079-31 UL 121201, UL 508, UL 50, UL 50E, UL 508A CSA C22.2 No.213, CSA C22.2 No.14, CSA C22.2 No. 94.1, CSA C22.2 No. 94.2
Enclosure material	Stainless steel
Terminal	International brand of explosion-proof terminal Ex-mark: Ⓔx II 2 GD Ex e II
Exposed fastener	Stainless steel
Rated voltage	Max. 500V AC

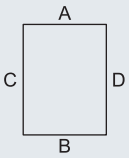
Rated current

Cross section	2.5mm²	4mm²	6mm²	10mm²	16mm²
Ex e Rated current	24A	32A	41A	57A	76A
Ex ia Rated current	5A	5A	-	-	-
Cross section	35mm²	70mm²	120mm²	185mm²	300mm²
Ex e Rated current	125A	192A	269A	353A	520A
Ex ia Rated current	-	-	-	-	-

Internal&external earthing	M6/M6
Degree of protection	IP66, IP67 (optional)
Ambient temperature	Ex e: T6/T80℃ for Tamb: -40℃ ~ +40℃; T5/T95℃ for Tamb: -40℃ ~ +55℃ Ex ia: T6/T80℃ for Tamb: -40℃ ~ +55℃
Note	Ex e Rated current > 125A on request.

Cable entry table

Table of max. number of possible enclosure entries with cable glands DQM-Ⅰ



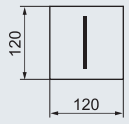
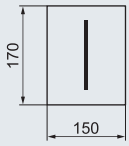
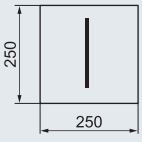
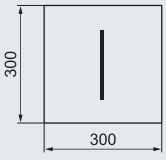
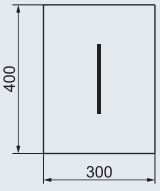


		Size								
		M20 x 1.5	M25 x 1.5	M32 x 1.5	M40 x 1.5	M50 x 1.5	M63 x 1.5	M75 x 1.5	M90 x 1.5	M115 x 1.5
Ⅰ	A/B	2	1	/	/	/	/	/	/	/
	C/D	2	1	/	/	/	/	/	/	/
Ⅱ	A/B	3	3	2	/	/	/	/	/	/
	C/D	4	3	3	/	/	/	/	/	/
Ⅲ	A/B	9	8	6	3	2	2	/	/	/
	C/D	9	8	6	3	2	2	/	/	/
Ⅳ	A/B	12	10	8	4	3	2	/	/	/
	C/D	12	10	8	4	3	2	/	/	/
Ⅳb	A/B	12	12	10	5	3	2	/	/	/
	C/D	16	16	12	7	4	3	/	/	/
Ⅳc	A/B	22	22	14	8	6	4	/	/	/
	C/D	30	30	17	11	8	6	/	/	/
Ⅴ	A/B	20	18	12	6	5	4	/	/	/
	C/D	20	18	12	6	5	4	/	/	/
Ⅴb	A/B	38	36	21	11	9	7	/	/	/
	C/D	38	36	21	11	9	7	/	/	/
Ⅵ	A/B	20	18	12	6	5	5	/	/	/
	C/D	28	24	16	14	12	5	/	/	/
Ⅵb	A/B	47	45	28	16	10	8	/	/	/
	C/D	57	55	36	20	12	10	/	/	/
Ⅶ	A/B	40	26	14	10	8	5	/	/	/
	C/D	54	40	26	20	9	7	/	/	/
Ⅶb	A/B	62	59	38	20	12	10	8	6	3
	C/D	88	78	52	30	26	17	12	9	4
Ⅷ	A/B	83	73	50	28	24	17	11	9	4
	C/D	128	113	74	42	35	26	17	15	6
Ⅷb	A/B	149	131	88	43	40	28	17	14	7
	C/D	230	203	130	63	60	43	26	23	11

Note: 1. No cable entries for standard design. Cable entries shall be drilled by user.
2. For cable entries:
1) Please specify the direction and size of each cable entry.
2) Cable gland is optional, DQM-Ⅰ (Ex e) is recommended. Please see P7/17~19.

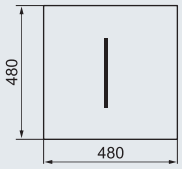
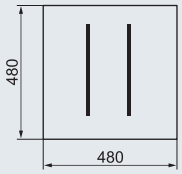
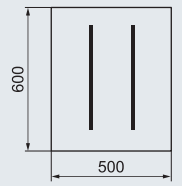
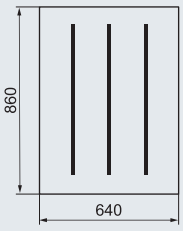
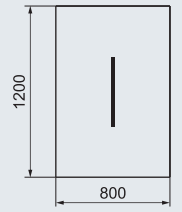
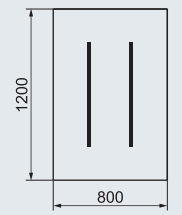
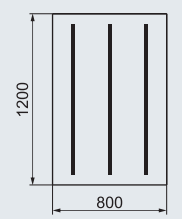
Selection table of BXJ-S series terminal boxes

Max. cross section of cable connected to terminals is 35mm^2
See table for max. number of fitted terminals

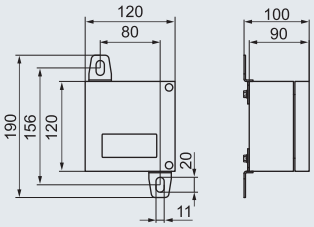
Cross section of cable (mm^2)		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	70 (g)	120 (h)	185 (i)	300 (j)	Weight (kg)
Enclosure code/Ordering code	Outline											
I		10	8	—	—	—	—	—	—	—	—	2.25
II		15	12	10	—	—	—	—	—	—	—	3.60
III		25	22	18	15	12	8	—	—	—	—	7.40
IV		30	28	25	20	14	10	—	—	—	—	8.70
IVb, IVc		40	35	30	25	20	12	—	—	—	—	11.50 (IVb) 13.75 (IVc)

Selection table of BXJ-S series terminal boxes

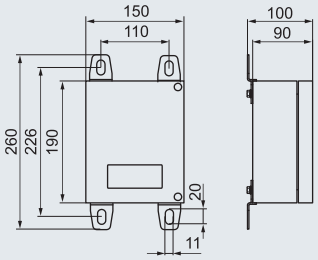
Max. cross section of cable connected to terminals is 35mm^2
See table for max. number of fitted terminals

Cross section of cable (mm^2)		2.5 (a)	4 (b)	6 (c)	10 (d)	16 (e)	35 (f)	70 (g)	120 (h)	185 (i)	300 (j)	Weight (kg)
Enclosure code/Ordering code	Outline											
V, Vb		60	55	45	35	30	20	—	—	—	—	18.60 (V) 21.70 (Vb)
		120	110	90	70	60	—	—	—	—	—	18.90 (V) 20.20 (Vb)
VI, VIb		160	140	100	80	70	50	—	—	—	—	25.70 (VI) 29.20 (VIb)
VII, VIIb		300	270	240	165	135	72	—	—	—	—	40.10 (VII) 44.90 (VIIb)
VIII, VIIIb		160	150	120	100	80	75	30	20	15	15	55.40 (VIII) 60.50 (VIIIb)
		320	300	240	200	160	150	—	—	—	—	56.30 (VIII) 61.20 (VIIIb)
		480	450	360	300	240	—	—	—	—	—	57.00 (VIII) 62.00 (VIIIb)

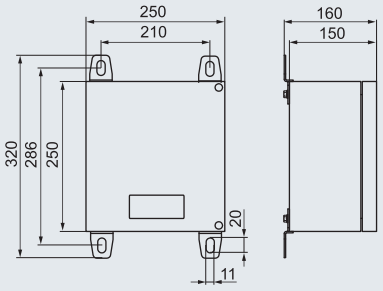
Dimension drawings (all dimensions in mm) - subject to alteration



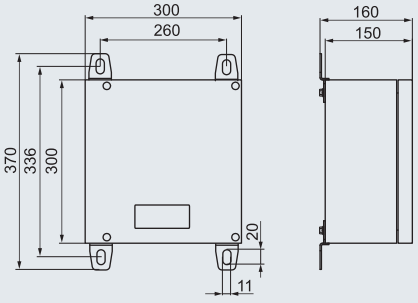
Type I



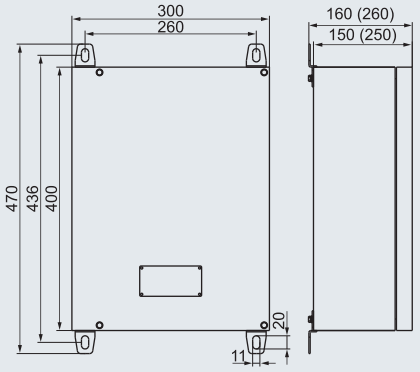
Type II



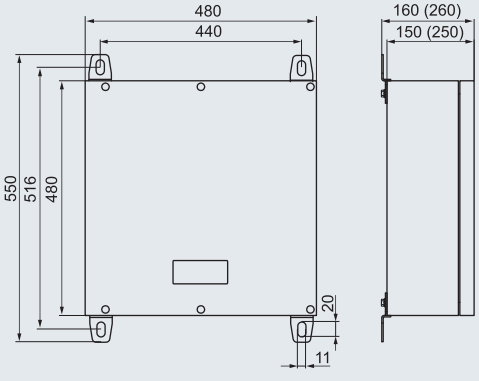
Type III



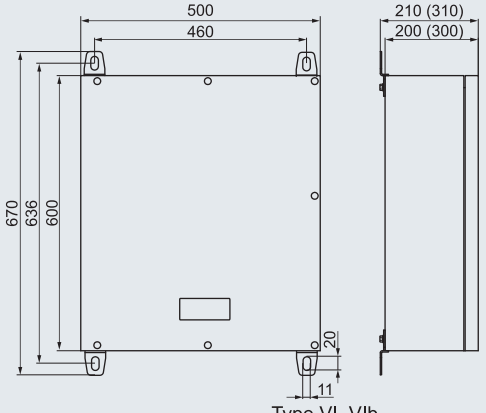
Type IV



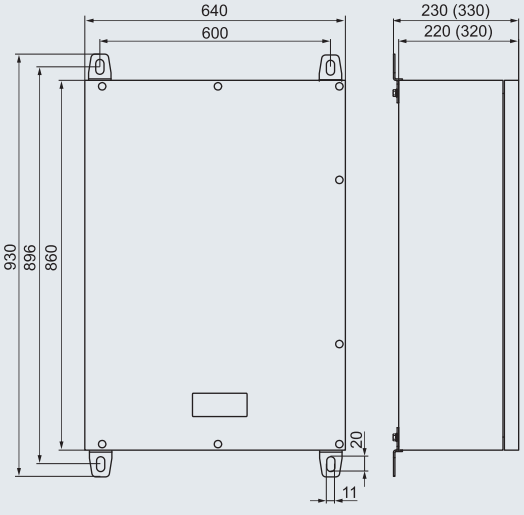
Type IVb, IVc



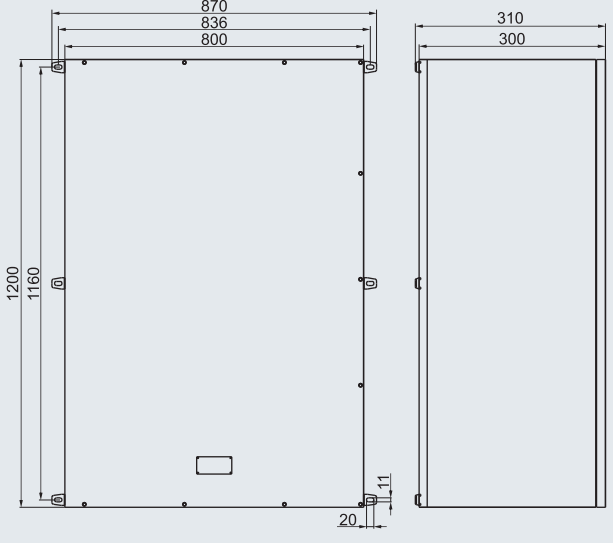
Type V, Vb



Type VI, VIb



Type VII, VIIb



Type VIII, VIIIb

Introduction of the voltage, Number of pole , clock position and colour of explosion-proof plug and sockets

Plug and Sockets are in compliance with the following international standards: IEC60309-1& IEC60309-2, CEIEN60309-1& CEIEN60309-2. They are also in compliance with the standards: VDE0623 &BS4343.

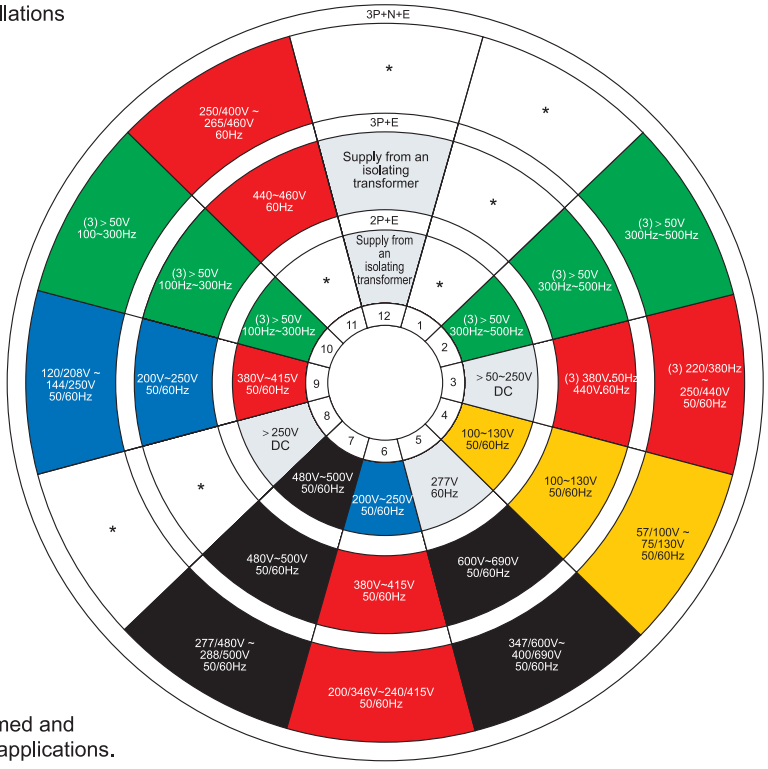
Position of the earthing contact according to IEC60309-2

Voltage (V)	Frequency (Hz)	1P+N+PE		2P+PE		3P+PE		3P+N+PE	
		16A, 32A	63A,125A	16A, 32A	63A,125A	16A, 32A	63A,125A	16A, 32A	63A,125A
57/110 ~ 75/130	50 / 60							4	4
100 ~ 130	50 / 60	4	4	4	4	4	4		
120/208 ~ 144/250	50 / 60							9	9
200 ~ 250	50 / 60			6	6	9	9		
200/346 ~ 240/415	50 / 60							6	6
220/380 ~ 250/440(1)	50 / 60							3	3(3)
250/400 ~ 265/460(2)	60							11	11
277	60	5	5	5	5				
277/480 ~ 288/500	50 / 60							7	7
347/600 ~ 400/690	50 / 60							5	5
380 ~ 415	50 / 60			9	9	6	6		
380; 440(1)	50 / 60					3	3(3)		
440 ~ 460(2)	60					11	11		
480 ~ 500	50 / 60			7	7	7	7		
600 ~ 690	50 / 60					5	5		
> 50	100 ~ 300			10(3)	10(3)	10(3)	10(3)	10(3)	10(3)
> 50	> 300 ~ 500			2	2(3)	2	2(3)	2	2
> 50 ~ 250	DC			3	3				
> 250	DC			8	8		12		
Supply from an isolating transformer	50 / 60			12	12	12			

(1) Only for refrigeration containers (standardized ISO)

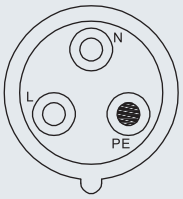
(2) Mainly for marine installations

(3) Non standard

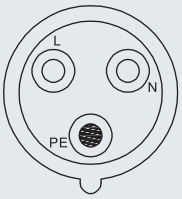


* Clock positions not normed and free for use for special applications.

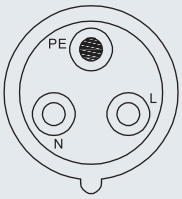
View: Front side socket or connector



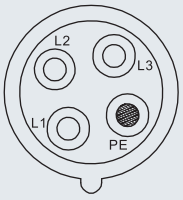
2P+PE 4h
100V~130V



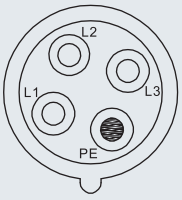
2P+PE 6h
200V~250V



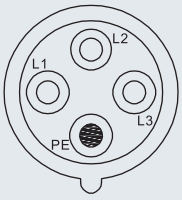
2P+PE 12h
＜DC50V



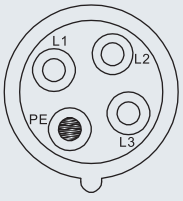
3P+PE 4h
100V~130V



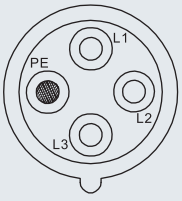
3P+PE 5h
600V~690V



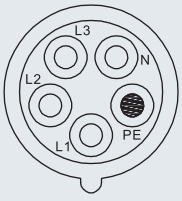
3P+PE 6h
380V~415V



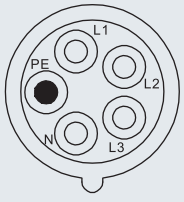
3P+PE 7h
480V~500V



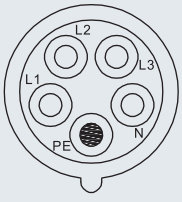
3P+PE 9h
200V~250V



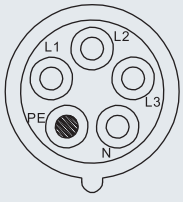
3P+N+PE 4h
57/100V~75/130V



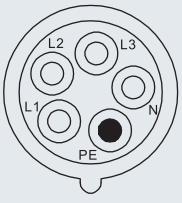
3P+N+PE 9h
120/208V~144/250V



3P+N+PE 6h
200/346V~240/415V



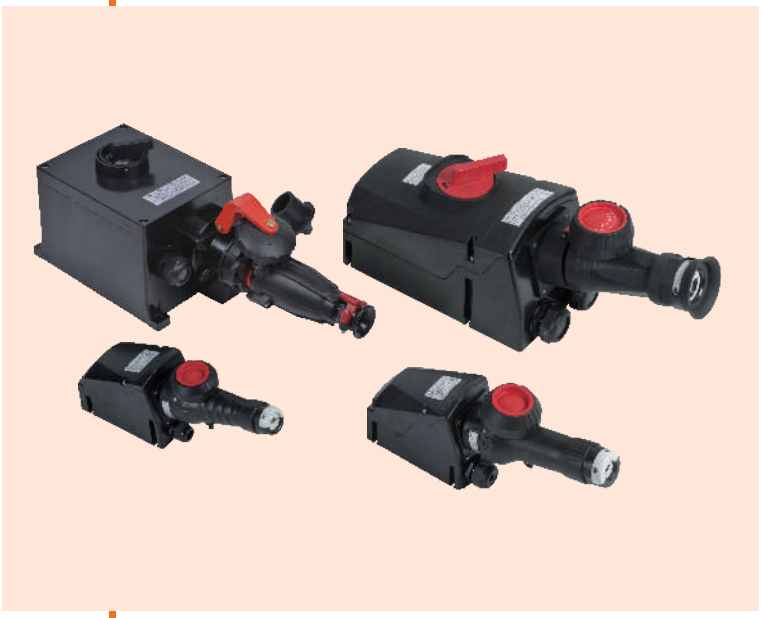
3P+N+PE 7h
277/480V~288/500V



3P+N+PE 5h
347/600V~400/690V

Note: Above drawings show the relationships among the clock position, voltage and pole number of our BCZ8060 series, BCZ85 series and BLJ85 series standard products. The clock position indicates the direction by plughole of socket or connector.

Plug and Sockets
BCZ8060 Series Explosion-proof Plug and Sockets



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- 2P, 3P, 4P and 5P.
- Plug can only be pulled out when switch is off; turn on the power after inserting the plug.
- GRP (glass fibre-reinforced polyester resin).

Catalogue number logic

BCZ 8060 - □ / □ / □ / □

- □ (last): Z: Socket; T: Plug; L: Coupler
- □ (4th): Number of pole: 2P; 3P (2P+PE or 1P+N+PE); 4P (3P+PE); 5P (3P+N+PE)
- □ (3rd): Rated voltage (V): 690: 600~690; 500: 480~500; 415: 380~415; 250: 200~250; 130: 100~130; 36: 36; 24: 24
- □ (2nd): Rated current (A)
- 8060: Design No.
- BCZ: Explosion-proof plug and sockets

Zones 1&2; 21&22

Selection table

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Ordering code	Weight (kg)
BCZ8060-16/□/□ 	480 ~ 500	16	3P+PE		7	30048	1.85
	380 ~ 415	16	3P+N+PE		6	30049	1.85
		16	3P+PE		6	30050	1.85
	200 ~ 250	16	3P+N+PE		6	30051	1.85
		16	3P+PE		9	30052	1.85
		16	2P+PE		6	30053	1.85
	100 ~ 130	16	1P+N+PE		4	30054	1.85
	36	16	2P+PE		12	30055	1.80
		16	2P			30056	1.80
	24	16	2P+PE		12	30057	1.80
		16	2P			30058	1.80
BCZ8060-32/□/□ 	600 ~ 690	32	3P+PE		5	30059	2.85
	480 ~ 500	32	3P+PE		7	30060	2.85
	380 ~ 415	32	3P+N+PE		6	30061	2.85
		32	3P+PE		6	30062	2.85
	200 ~ 250	32	3P+N+PE		6	30063	2.85
		32	3P+PE		9	30064	2.85
BCZ8060-63/□/□ 	380 ~ 415	63	3P+N+PE	/	/	30065	14.90
		63	3P+PE	/	/	30066	14.90
	200 ~ 250	63	1P+N+PE	/	/	30067	14.90
BCZ8060-125/□/□ 	600 ~ 690	125	3P+PE		5	30068	16.00
	480 ~ 500	125	3P+PE		7	30069	16.00
	380 ~ 415	125	3P+N+PE		6	30070	16.00
		125	3P+PE		6	30071	16.00
	200 ~ 250	125	3P+N+PE		6	30072	16.00
		125	3P+PE		9	30073	16.00

Technical data

Explosion-proof plug and sockets BCZ8060-16/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP65
Certificates	EUT 14 ATEX 1153; IECEx CQM 13.0043X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Exposed fastener	Stainless steel
Rated voltage	AC 480V~500V, 380V~415V, 200V~250V, 100V~130V
	DC 36V, 24V
Rated current	16A
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Cable entries	Standard 1 x M25x1.5 cable gland(plastic), 1 x M25x1.5 plug (plastic)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16.
Cross section of cable	2.5~4 mm^2

Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)
16A Coupler	480 ~ 500	16	3P+PE		7	Black	30099	1.30
	380 ~ 415	16	3P+N+PE		6	Red	30100	1.30
		16	3P+PE		6	Red	30101	1.30
	200 ~ 250	16	3P+N+PE		6	Blue	30102	1.30
		16	3P+PE		9	Blue	30103	1.30
		16	2P+PE		6	Blue	30104	1.30
	100 ~ 130	16	1P+N+PE		4	Yellow	30105	1.30
	36	16	2P+PE		12	Violet	30106	1.25
		16	2P			Violet	30107	1.25
	24	16	2P+PE		12	Violet	30108	1.25
		16	2P			Violet	30109	1.25



Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)
16A Socket 	480 ~ 500	16	3P+PE		7	Black	30075	1.50
	380 ~ 415	16	3P+N+PE		6	Red	30076	1.50
		16	3P+PE		6	Red	30077	1.50
	200 ~ 250	16	3P+N+PE		6	Blue	30078	1.50
		16	3P+PE		9	Blue	30079	1.50
		16	2P+PE		6	Blue	30080	1.50
	100 ~ 130	16	1P+N+PE		4	Yellow	30081	1.50
	36	16	2P+PE		12	Violet	30082	1.45
		16	2P			Violet	30083	1.45
	24	16	2P+PE		12	Violet	30084	1.45
		16	2P			Violet	30085	1.45
16A Plug 	480 ~ 500	16	3P+PE		7	Black	30087	0.35
	380 ~ 415	16	3P+N+PE		6	Red	30088	0.35
		16	3P+PE		6	Red	30089	0.35
	200 ~ 250	16	3P+N+PE		6	Blue	30090	0.35
		16	3P+PE		9	Blue	30091	0.35
		16	2P+PE		6	Blue	30092	0.35
	100 ~ 130	16	1P+N+PE		4	Yellow	30093	0.35
	36	16	2P+PE		12	Violet	30094	0.35
		16	2P			Violet	30095	0.35
	24	16	2P+PE		12	Violet	30096	0.35
		16	2P			Violet	30097	0.35

Technical data

Explosion-proof plug and sockets BCZ8060-32/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T5 or T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP65
Certificates	EUT 14 ATEX 1153; IECEx CQM 13.0043X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Exposed fastener	Stainless steel
Rated voltage	AC 600V~690V, 480V~500V, 380V~415V, 200V~250V
Rated current	32A
Degree of protection	IP65
Ambient temperature	T5 for Tamb: -20℃~+40℃, T4/T80℃ for Tamb: -20℃~+55℃
Cable entries	Standard 1 x M40 x 1.5 cable gland (plastic), 1 x M40 x 1.5 plug(plastic)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16.
Cross section of cable	4~6 mm^2

Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)
32A Socket 	600 ~ 690	32	3P+PE		5	Black	30110	1.90
	480 ~ 500	32	3P+PE		7	Black	30111	1.90
	380 ~ 415	32	3P+N+PE		6	Red	30112	1.90
		32	3P+PE		6	Red	30113	1.90
	200 ~ 250	32	3P+N+PE		6	Blue	30114	1.90
		32	3P+PE		9	Blue	30115	1.90
32A Plug 	600 ~ 690	32	3P+PE		5	Black	30116	0.95
	480 ~ 500	32	3P+PE		7	Black	30117	0.95
	380 ~ 415	32	3P+N+PE		6	Red	30118	0.95
		32	3P+PE		6	Red	30119	0.95
	200 ~ 250	32	3P+N+PE		6	Blue	30120	0.95
		32	3P+PE		9	Blue	30121	0.95
32A Coupler 	600 ~ 690	32	3P+PE		5	Black	30122	1.75
	480 ~ 500	32	3P+PE		7	Black	30123	1.75
	380 ~ 415	32	3P+N+PE		6	Red	30124	1.75
		32	3P+PE		6	Red	30125	1.75
	200 ~ 250	32	3P+N+PE		6	Blue	30126	1.75
		32	3P+PE		9	Blue	30127	1.75

Technical data

Explosion-proof plug and sockets BCZ8060-63/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T5 or T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T95℃ Db IP65
Certificates	EUT 14 ATEX 1153; IECEx CQM 13.0041X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Exposed fastener	Stainless steel
Rated voltage	AC 380V~415V, 200V~250V
Rated current	63A
Degree of protection	IP65
Ambient temperature	T5 for Tamb: -20℃~+40℃, T4/T95℃ for Tamb: -20℃~+55℃
Cable entries	Standard 1 x M50x1.5 cable gland (plastic)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16.
Cross section of cable	10~16 mm^2

Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	Colour	Ordering Code	Weight (kg)
63A Socket 	380 ~ 415	63	3P+N+PE	/	Red	30128	12.75
		63	3P+PE		Red	30129	12.75
	200 ~ 250	63	1P+N+PE	/	Blue	30130	12.75
63A Plug 	380 ~ 415	63	3P+N+PE	/	Red	30131	2.15
		63	3P+PE	/	Red	30132	2.15
	200 ~ 250	63	1P+N+PE	/	Blue	30133	2.15

Technical data

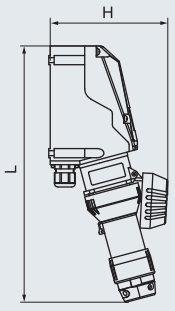
Explosion-proof plug and sockets BCZ8060-125/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T95℃ Db IP65
Certificates	EUT 14 ATEX 1153; IECEx CQM 13.0042X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Exposed fastener	Stainless steel
Rated voltage	AC 600V~690V, 480V~500V, 380V~415V, 200V~250V
Rated current	125A
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Cable entries	Standard 1 x M63x1.5 cable gland (plastic), 1 x M63x1.5 plug (plastic)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16.
Cross section of cable	25~35 mm^2

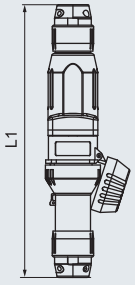
Accessories and spare parts

Version	Voltage (V)	Current (A)	Number of pole	Schematic diagram	h	Colour	Ordering Code	Weight (kg)
125A Socket 	600 ~ 690	125	3P+PE		5	Black	30134	14.30
	480 ~ 500	125	3P+PE		7	Black	30135	14.30
	380 ~ 415	125	3P+N+PE		6	Red	30136	14.30
		125	3P+PE		6	Red	30137	14.30
	200 ~ 250	125	3P+N+PE		6	Blue	30138	14.30
		125	3P+PE		9	Blue	30139	14.30
125A Plug 	600 ~ 690	125	3P+PE		5	Black	30140	1.70
	480 ~ 500	125	3P+PE		7	Black	30141	1.70
	380 ~ 415	125	3P+N+PE		6	Red	30142	1.70
		125	3P+PE		6	Red	30143	1.70
	200 ~ 250	125	3P+N+PE		6	Blue	30144	1.70
		125	3P+PE		9	Blue	30145	1.70

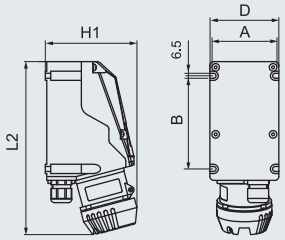
Dimension drawings (all dimensions in mm) - subject to alteration



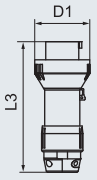
Plug and socket



Coupler (L)



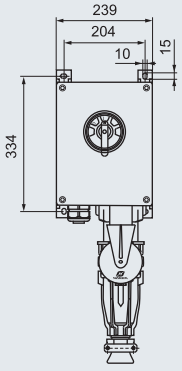
Socket (Z)

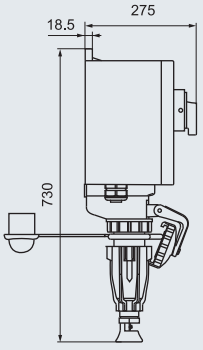


Plug (T)

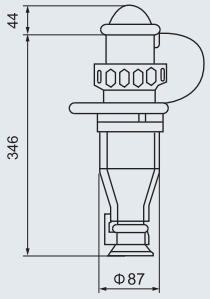
BCZ8060-16/□/□
BCZ8060-32/□/□

Version	L	H	L1	L2	H1	D	A	B	L3	D1
BCZ8060-16/□/(2P/3P)	336	154	356	227	120	90	80	122	171	72
BCZ8060-16/□/(4P/5P)	408	175	460	252	151	110	102	150	217	76.5
BCZ8060-32/□/□	460	209	514	283	171	120	113	169	253	95



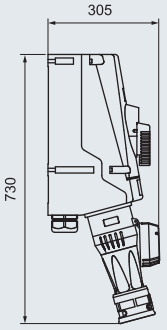


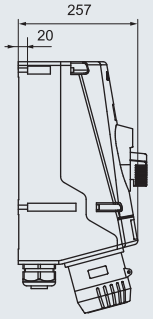
Plug and socket

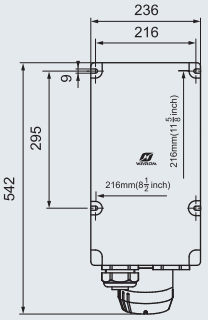


Plug (T)

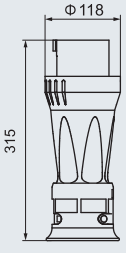
BCZ8060-63/□/□







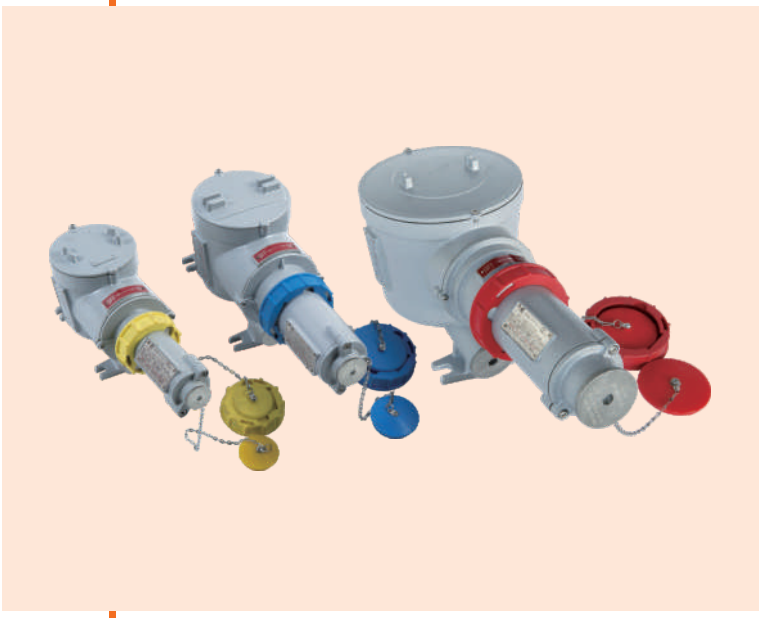
Socket (Z)



Plug (T)

BCZ8060-125/□/□

Plug and Sockets
BCZ85 Series Explosion-proof Plug and Sockets



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups A, B, C, D
- Four enclosure types; Four current ratings (16A, 32A, 63A, 125A); 3P, 4P or 5P.
- Plug can only be pulled out when switch is off; turn on the power after inserting the plug.
- Copper-free aluminium enclosure, powder coated surface.

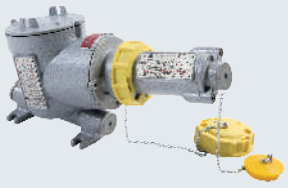
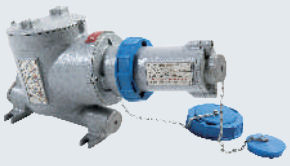
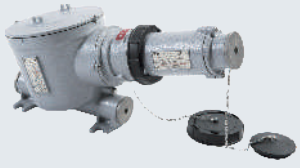
Catalogue number logic

BCZ 85 - □ / □ / □ / □

- □: Z: Socket; T: Plug
- Number of pole: 3P (2P+PE); 4P (3P+PE); 5P (3P+N+PE)
- Rated voltage (V): 130: 100~130, 57/100~75/130; 250: 200~250, 120/208~144/250; 415: 380~415, 200/346~240/415; 500: 480~500, 277/480~288/500; 690: 600~690, 347/600~400/690
- Rated current (A)
- Design No.
- Explosion-proof plug and sockets

Zones 1&2; 21&22

Selection table

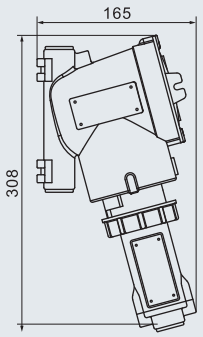
Version	Current (A)	Voltage (V)	Number of pole	Schematic diagram	h	Colour	Ordering code	Weight (kg)
BCZ85-16/□/□ 	16	100~130	2P+PE		4	Yellow	30147	2.60
		200~250			6	Blue	30148	2.60
		100~130	3P+PE		4	Yellow	30149	2.60
		200~250			9	Blue	30150	2.60
		380~415			6	Red	30151	2.60
		480~500			7	Black	30152	2.60
		600~690			5	Black	30153	2.60
		57/100~75/130	3P+N+PE		4	Yellow	30154	3.40
		120/208~144/250			9	Blue	30155	3.40
		200/346~240/415			6	Red	30156	3.40
		277/480~288/500			7	Black	30157	3.40
		347/600~400/690			5	Black	30158	3.40
BCZ85-32/□/□ 	32	200~250	2P+PE		6	Blue	30159	3.40
		200~250	3P+PE		9	Blue	30160	3.40
		380~415			6	Red	30161	3.40
		480~500			7	Black	30162	3.40
		600~690			5	Black	30163	3.40
		120/208~144/250	3P+N+PE		9	Blue	30164	3.40
		200/346~240/415			6	Red	30165	3.40
		277/480~288/500			7	Black	30166	3.40
		347/600~400/690			5	Black	30167	3.40
BCZ85-63/□/□ 	63	200~250	3P+PE		9	Blue	30168	4.50
		380~415			6	Red	30169	4.50
		480~500			7	Black	30170	4.50
		600~690			5	Black	30171	4.50
		200/346~240/415	3P+N+PE		6	Red	30172	4.50
		277/480~288/500			7	Black	30173	4.50
BCZ85-125/□/□ 	125	200~250	3P+PE		9	Blue	30174	20.0
		380~415			6	Red	30175	20.0
		480~500			7	Black	30176	20.0
		600~690			5	Black	30177	20.0
		200/346~240/415	3P+N+PE		6	Red	30178	20.0
		277/480~288/500			7	Black	30179	20.0

Technical data

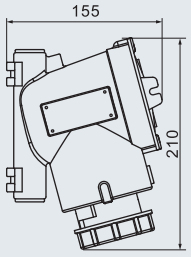
Explosion-proof plug and sockets BCZ85-16/□/□

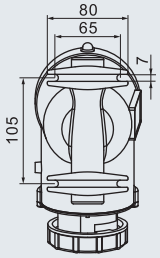
Explosion protection	
Gas explosion protection	Ex II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ex II 2 D Ex t IIIC T80℃ Db IP66
Certificates	Nemko 12 ATEX 1044; IECEx CQM 12.0015; KZ.7500525.22.01.00363 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max. 690V AC
Rated current	16A
Number of pole	3P (2P+PE), 4P (3P+PE), 5P (3P+N+PE)
Degree of protection	IP66, IP67 (optional)
Internal&external earthing	M5/M5
Ambient temperature	-60℃~+55℃
Cable entry of socket	2 x M25 x 1.5(3P/4P), 2 x M32 x 1.5(5P)
Cable entry of plug	1 x M25 x 1.5(3P/4P) , 1 x M32 x 1.5(5P)
Cable gland (optional)	DQM-**II** (Ex d) or DQM-**III** (Ex d) is recommended. Please see P7/20~29.
Cross section of cable	2.5~4 mm^2

Dimension drawings (all dimensions in mm) - subject to alteration

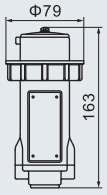


Plug and Sockets

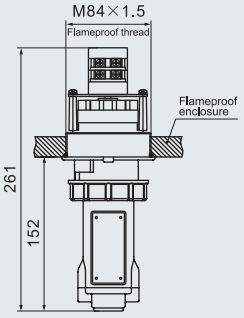




Socket

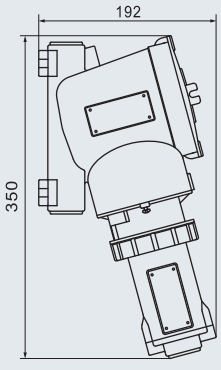


Plug

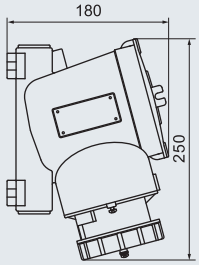


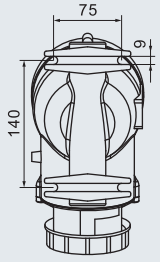
Install on the flameproof enclosure

BCZ85-16/□/3P
BCZ85-16/□/4P

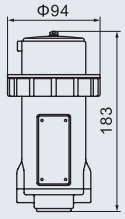


Plug and Sockets

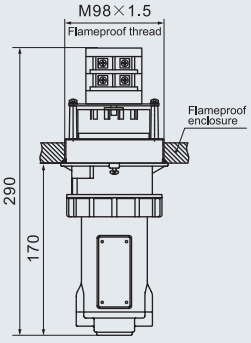




Socket



Plug



Install on the flameproof enclosure

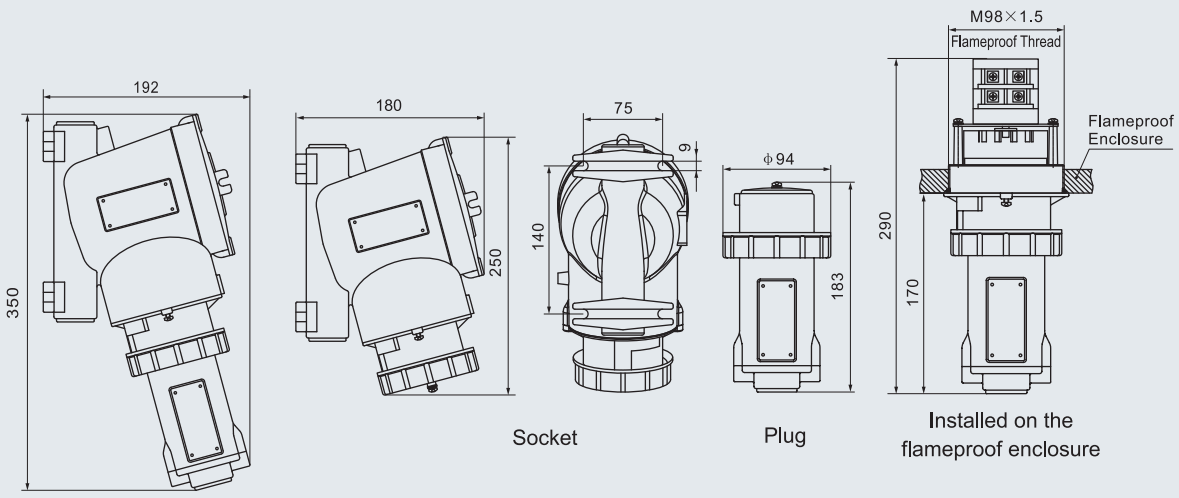
BCZ85-16/□/5P

Technical data

Explosion-proof plug and sockets BCZ85-32/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T80℃ Db IP66
Certificates	Nemko 12 ATEX 1044; IECEx CQM 12.0015; KZ.7500525.22.01.00363 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max. 690V AC
Rated current	32A
Number of pole	3P (2P+PE), 4P (3P+PE), 5P (3P+N+PE)
Degree of protection	IP66, IP67 (optional)
Internal&external earthing	M5/M5
Ambient temperature	-60℃~+55℃
Cable entry of socket	2 x M32 x 1.5
Cable entry of plug	1 x M32 x 1.5
Cable gland (optional)	DQM-**II** (Ex d) or DQM-**III** (Ex d) is recommended. Please see P7/20~29.
Cross section of cable	4~6 mm^2

Dimension drawings (all dimensions in mm) - subject to alteration



Plug and Sockets

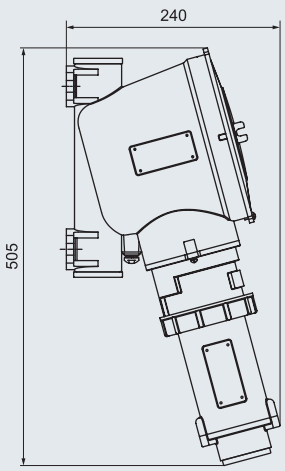
BCZ85-32/□/□

Technical data

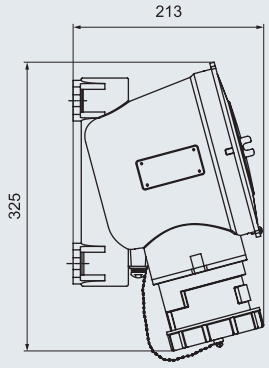
Explosion-proof plug and sockets BCZ85-63/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T80℃ Db IP66
Certificates	Nemko 12 ATEX 1247; IECEx CQM 12.0043X; KZ.7500525.22.01.00363 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max. 690V AC
Rated current	63A
Number of pole	4P (3P+PE), 5P (3P+N+PE)
Degree of protection	IP66, IP67 (optional)
Internal&external earthing	M6/M6
Ambient temperature	-60℃~+55℃
Cable entry of socket	2 x M40 x 1.5
Cable entry of plug	1 x M50 x 1.5
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Cross section of cable	10~16 mm^2

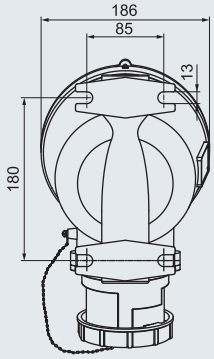
Dimension drawings (all dimensions in mm) - subject to alteration

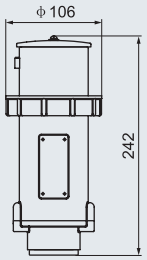


Plug and Sockets



Socket





Plug

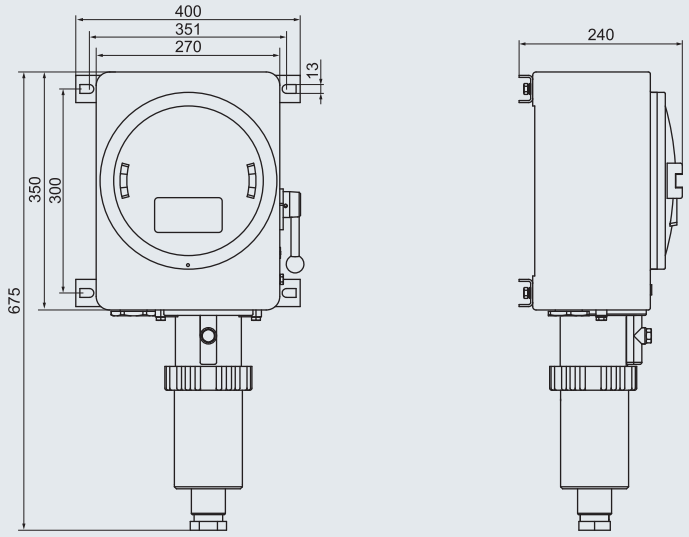
BCZ85-63/□/□

Technical data

Explosion-proof plug and sockets BCZ85-125/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex t IIIC T80℃ Db IP66
Certificates	Nemko 13 ATEX 1531; IECEx CQM 13.0033X; KZ.7500525.22.01.00363 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max. 690V AC
Rated current	125A
Number of pole	4P (3P+PE), 5P (3P+N+PE)
Degree of protection	IP66, IP67 (optional)
Internal&external earthing	M6/M8
Ambient temperature	-60℃~+55℃
Cable entry of socket	1 x M63 x 1.5
Cable entry of plug	1 x M50 x 1.5
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Cross section of cable	25~35 mm^2

Dimension drawings (all dimensions in mm) - subject to alteration



BCZ85-125/□/□

Plug and Sockets
BCZY Series Explosion-proof Movable Switchboards



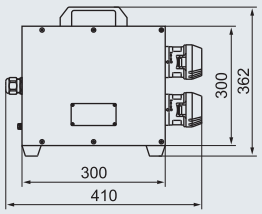
- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Type A (portable type) and type B (push type) for option.
- The enclosure of type A (portable type) : Stainless steel or GRP (glass fibre-reinforced polyester resin), the Max. transformer capacity of stainless steel product: 1000VA; the Max. transformer capacity of GRP product: 300VA
- Several kinds of voltage for option.
- Portable type is equipped with 5m cable; push type is equipped with 20m cable; also can be customized on request.
- Type A with transformer function.

Catalogue number logic

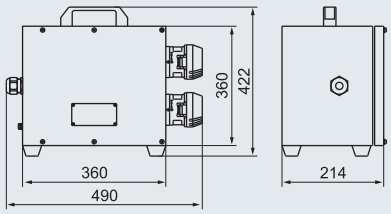
BCZY - □ □ □

- T: With transformer (optional)
- Number of pole
- A: portable type / B: push type
- Explosion-proof movable switchboards

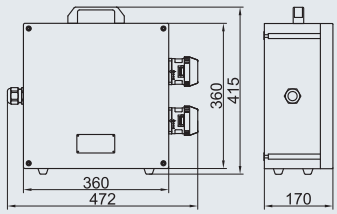
Dimension drawings (all dimensions in mm) - subject to alteration



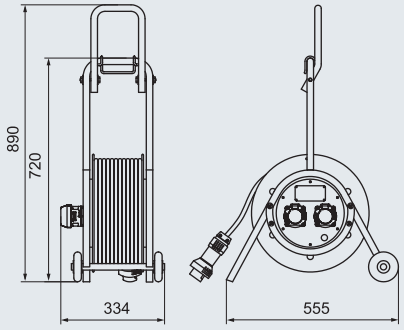
BCZY - A 3P □ (Stainless steel)



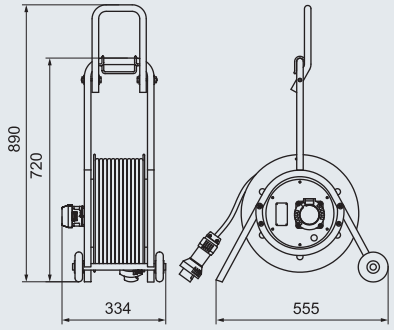
BCZY - A 5P □((Stainless steel))



BCZY-A 3P□((GRP))
BCZY-A 5P□((GRP))



BCZY - B 3P □



BCZY - B 5P □

Zones 1&2; 21&22

Technical data

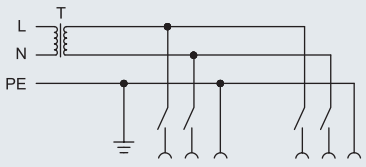
Explosion-proof movable switchboards BCZY-□□

Explosion protection	
Gas explosion protection	Ⅱ 2 G Ex d e ⅡC T4 Gb
Dust explosion protection	Ⅱ 2 D Ex tb ⅢC T80℃ Db IP65
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Material	
Enclosure (Portable type)	Stainless steel or GRP
Plug and flange type socket	GRP (glass fibre-reinforced polyester resin)
Exposed fastener	Stainless steel
Quantity of inserting holes/plugs	3P (2P+PE or 1P+N+PE), 5P(3P+N+PE)
Rated voltage	3P : 200~250V AC, 5P : 380~415V AC
Rated current	16A
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Cable entries	Portable type: 1 x M25 x 1.5 cable gland (DQM-Ⅰ Ex e, Stainless steel)
Weight	
Portable type	Stainless steel: 8.40 kg (equipped with 5m cable); GRP: 5.10kg (equipped with 5m cable)
Push type	13.60kg (equipped with 20m cable)

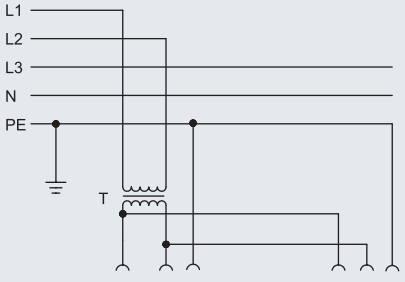
Explosion-proof movable switchboards BCZY-□□T

Rated primary voltage	3P: 200~250VAC 50Hz (60Hz: optional); 5P: 380~415VAC 50Hz (60Hz: optional)
Rated secondary voltage	6V, 24V, 110V, 127V, 220V
Capacity	300VA, 500VA, 1000VA (Note: The Max transformer capacity of portable type GRP product is only 300VA)
Weight	
Portable type	Stainless steel: 19.40 kg (equipped with 5m cable); GRP: 14.50kg (equipped with 5m cable)
Push type	25.20kg (equipped with 20m cable)

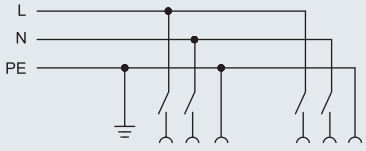
Electrical schematic diagram



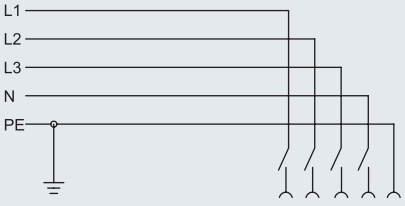
2 x 3 -pole
BCZY - A 3P □



2 x 3 -pole
BCZY - A 5P □

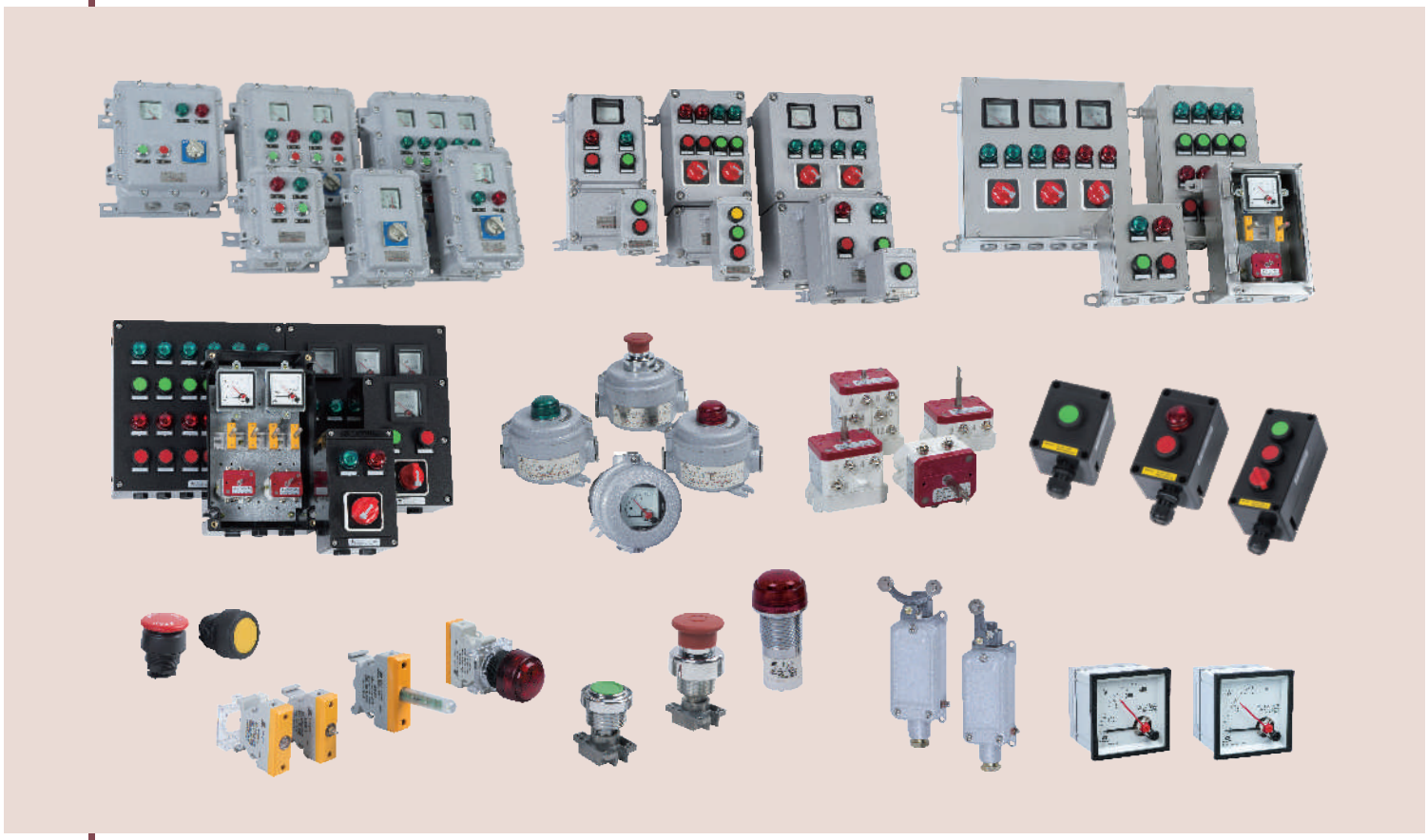


2 x 3 -pole
BCZY - B 3P □



1 x 5 -pole
BCZY - B 5P □

4



Control Equipments

Contents

Position Switches

BZX85 Series Explosion-proof Position Switches (Ex d e IIC) 4/2

Control Stations

BZC Series Explosion-proof Control Stations (Ex d IIB+H_2) 4/4

Components for BZC Control Stations

HA Flameproof Pushbutton 4/8
HD Series Indicators 4/12
HK Series Control Switches 4/14

Control Unit Systems and Control Stations

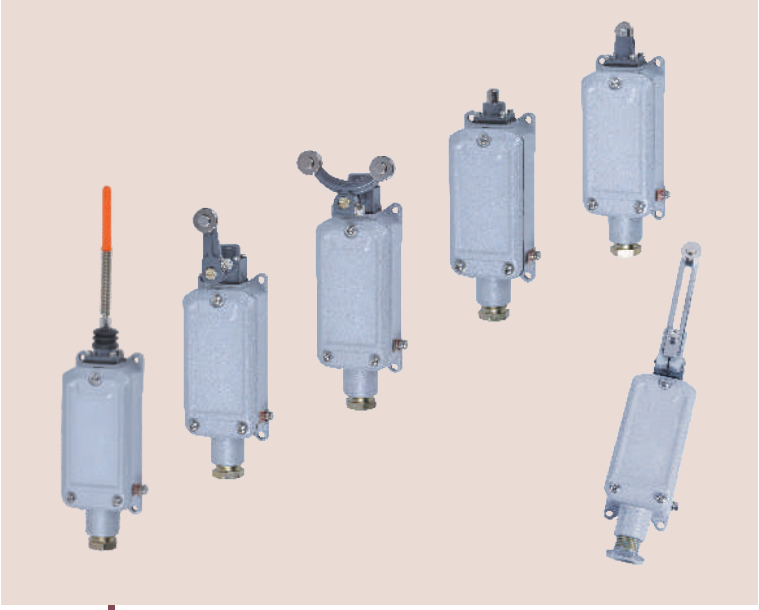
BZA8050 Series Explosion-proof Control Unit Systems (Ex d e IIC, GRP Enclosure) 4/18
BZA85 Series Explosion-proof Control Unit Systems (Ex d IIC, Aluminum Alloy Enclosure) 4/22
BZC8050 Series Control Stations (Ex d e IIC, GRP Enclosure) 4/26
BZC8050 Series Control Stations (Ex d e IIC, Aluminium Alloy Enclosure) 4/30
BZC8050 Series Control Stations (Ex d e IIC, Stainless Steel Enclosure) 4/34

Components for BZC8050 Control Stations

BA8050 Series Control Buttons 4/38
BD8050 Series Indicators 4/42
BK8050 Series Control Switches 4/45
BB8050 Series Explosion-proof Ammeters/Voltmeters 4/51

More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

Position Switches
BZX85 Series Explosion-proof Position Switches



- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Types: D, S, Z, L, N.
- Increased safety enclosure with explosion-proof components.
- Copper-free aluminium enclosure, powder coated surface.

Catalogue number logic

BZX 85 - □

- Type
  - D: single-arm roller
  - S: dual-arm roller
  - Z: extended plunger
  - L: roller plunger
  - N: Flexible contact
  - K: Adjustable-arm roller
- Design No.
- Explosion-proof position switches

Selection table

Version	Rated voltage	Rated current (A)	Type of contact	Ordering code	Weight (kg)
BZX85-D	380V AC	0.79	1NO+1NC	40001	0.45
	250V AC	1.5	1NO+1NC	40002	0.45
	220V DC	0.1	1NO+1NC	40003	0.45
BZX85-S	380V AC	0.79	1NO+1NC	40004	0.50
	250V AC	1.5	1NO+1NC	40005	0.50
	220V DC	0.1	1NO+1NC	40006	0.50
BZX85-Z	380V AC	0.79	1NO+1NC	40007	0.40
	250V AC	1.5	1NO+1NC	40008	0.40
	220V DC	0.1	1NO+1NC	40009	0.40
BZX85-L	380V AC	0.79	1NO+1NC	40010	0.40
	250V AC	1.5	1NO+1NC	40011	0.40
	220V DC	0.1	1NO+1NC	40012	0.40
BZX85-N	380V AC	0.79	1NO+1NC	40013	0.42
	250V AC	1.5	1NO+1NC	40014	0.42
	220V DC	0.1	1NO+1NC	40015	0.42
BZX85-K	380V AC	0.79	1NO+1NC	40016	0.45
	250V AC	1.5	1NO+1NC	40017	0.45
	220V DC	0.1	1NO+1NC	40018	0.45

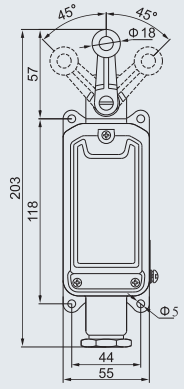
Zones 1&2; 21&22

Technical data

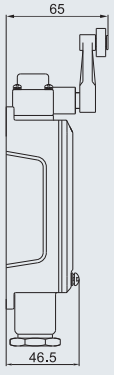
Explosion-proof position switches BZX85-□

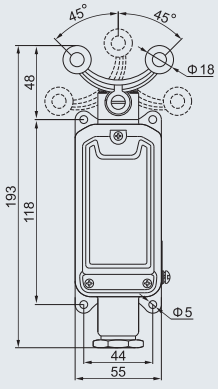
Explosion protection				
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T6 Gb			
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP65			
Certificates	ATEX and IECEx (applied for); PCEC (China)			
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31			
Enclosure material	Copper-free aluminium, powder coated surface			
Enclosure colour	Window grey (RAL7040)			
Exposed fastener	Stainless steel			
Type of contact	1NO+1NC			
Swing angle or distance of roller arm	BZX85-D	BZX85-S	BZX85-Z	BZX85-L
	45°	45°	5mm	5mm
Rated voltage	380V AC	250V AC	220V DC	
Rated current	0.79A	1.5A	0.1A	
Degree of protection	IP65			
Internal&external earthing	M4/M4			
Ambient temperature	-20℃~+55℃			
Cable entries	1 x G1/2″			
Available cable outer diameter	Φ6.5~Φ10(mm)			

Dimension drawings (all dimensions in mm) - subject to alteration

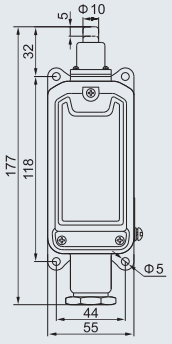


BZX85-D

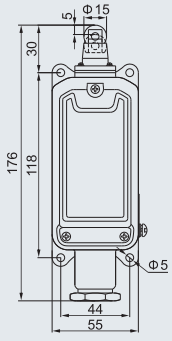




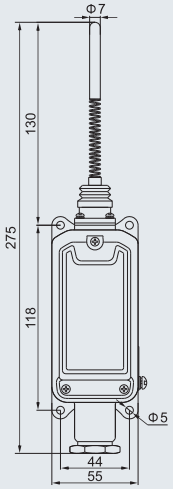
BZX85-S



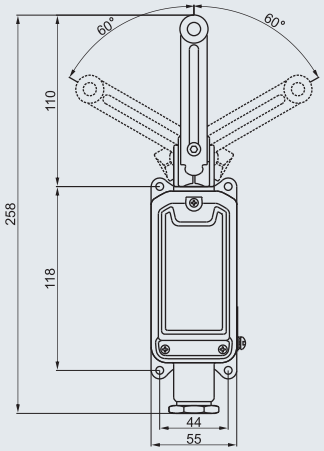
BZX85-Z

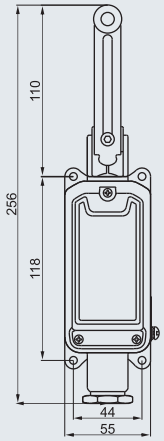


BZX85-L



BZX85-N





BZX85-K

Control Stations
BZC Series Explosion-proof Control Stations (Ex d IIB+H2)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups B, C, D
- Copper-free aluminium enclosure, powder coated surface.
- Six types of enclosure .

Catalogue number logic

BZC - A □ B □ D □ K □

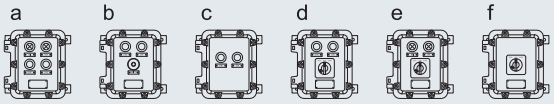
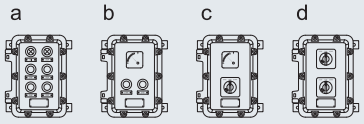
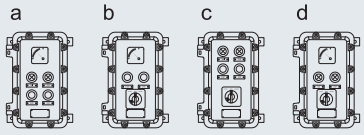
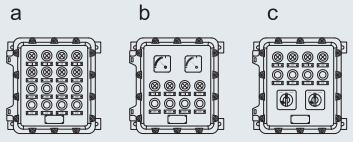
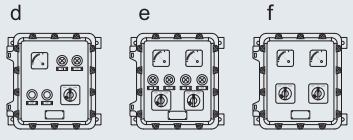
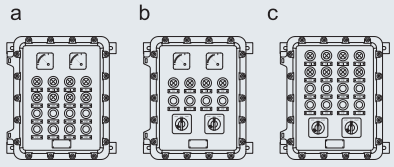
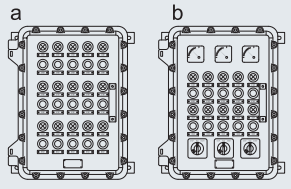
- Number of control switch
- Control switch (optional)
- Number of indicator
- Indicator (optional)
- Number of ammeter/voltmeter
- Ammeter/Voltmeter (optional)
- Number of pushbutton
- Pushbutton (optional)
- Explosion-proof control stations

Note

1. Please refer to the Selection table on P4/5.
2. Please select internal components as below:
   Selection table of HA pushbutton on P4/8~11 (Nominal contact is 1NO+1NC);
   Selection table of HD indicator on P4/12~13;
   Selection table of HK control switch on P4/14~17;
   Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC-A2B1K1
   Components: Two pushbuttons, one ammeter, one control switch ;
   Tech. Details: One start pushbutton (40036B + 40033, green, 1NO+1NC);
   One stop pushbutton (40036A + 40033, red, 1NO+1NC);
   One ammeter (40126, 100/5A);
   One control switch (Function A, stop-run-start);
4. Special requirements on request.

Zones 1&2; 21&22

Selection table of control station BZC (Ex d IIB+H2)

Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I		2-M25 x 1.5 Bottom entry	40017.....	8.00
II		1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40018.....	9.10
III		1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40019.....	10.20
IV	 	1-M40 x 1.5 or 2-M32 x 1.5 or 4-M25 x 1.5 Bottom entry	40020.....	15.90
V		1-M40 x 1.5 or 4-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40021.....	27.50
VI		1-M40 x 1.5 or 4-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40022.....	40.00

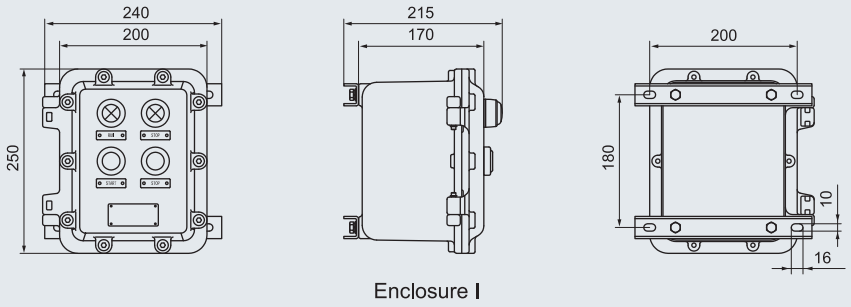
Control Stations
BZC Series Explosion-proof Control Stations (Ex d IIB+H2)

Technical data

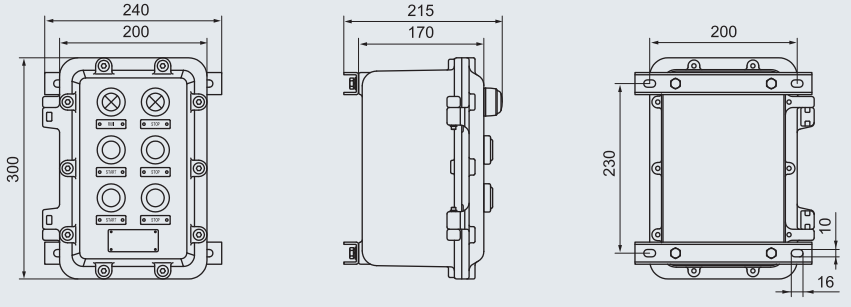
Explosion-proof control stations BZC (Ex d IIB+H2)

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB+H2 T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	TÜV CY 17 ATEX 0205967X; IECEx CQM 11.0043; RU C-CN.ГБ05.B.00345 (CU-TR)
	KZ.7500525.22.01.00378 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max. 415V AC
Rated current	10A
Degree of protection	IP66, IP67 (optional)
Internal&external earthing	I, II, III: M6/M6; IV, V, VI : M6/M8;
Ambient temperature	-60℃~+55℃
Components	1. Technical data of HA pushbutton on P4/8~11;
	2. Technical data of HD indicator on P4/12~13;
	3. Technical data of HK control switch on P4/14~17;
	4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
Cable entries	Standard M□ x 1.5 plug. Please see the Selection table on P4/5
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Mounting	Surface type

Dimension drawings (all dimensions in mm) - subject to alteration

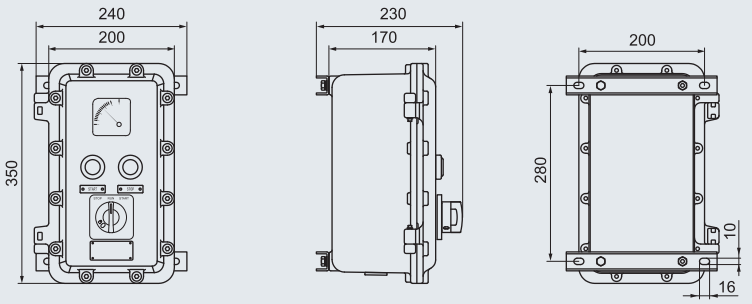


Enclosure I

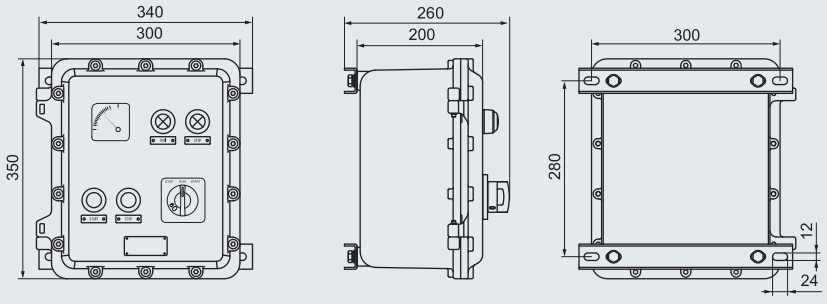


Enclosure II

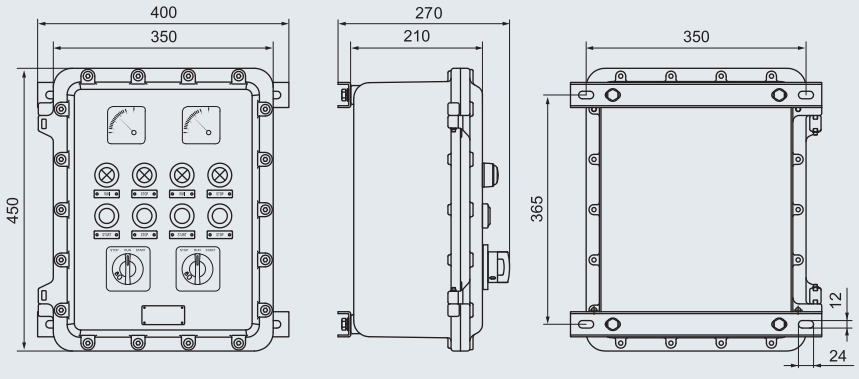
Dimension drawings (all dimensions in mm) - subject to alteration



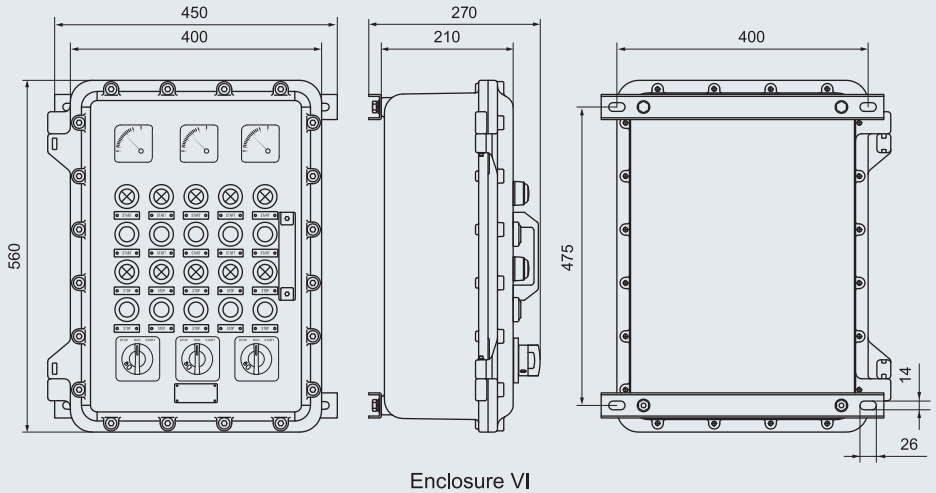
Enclosure III



Enclosure IV



Enclosure V



Enclosure VI

Components for BZC Control Stations
HA Flameproof pushbutton



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Five different ways of operation
  - -Spring-return pushbutton
  - -Key-operated pushbutton
  - -Mushroom stay-put emergency pushbutton
  - -Mushroom turn-to-release emergency pushbutton
  - -Rotary pushbutton
- Mushroom stay-put emergency pushbutton/ mushroom turn-to-release emergency pushbutton can be equipped with protection cover, please specify when ordering. Material of protection cover: stainless steel and PC, please specify when ordering.

Catalogue number logic

HA (A for short)

A - □ □

- Contact code
- Pushbutton code
- Pushbuttons

Technical data

HA Flameproof pushbutton

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db
Certificates	CML 17 ATEX 1289U; IECEx CML 17.0161U
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Rated voltage	660V AC; 400V DC
Rated current	10A(for 660V AC); 6A(for 400V DC)
Degree of protection	IP66
Ambient temperature	-60℃~+70℃

Zones 1&2; 21&22

Selection table

Cover mounting	Specification		Code	Ordering code	Weight (kg)
	Spring-return pushbutton	Red	a	40036A	0.15
		Green	b	40036B	0.15
		Yellow	c	40036C	0.15
	Mushroom stay-put emergency pushbutton	Red	d	40037	0.27
	Key-operated mushroom stay-put emergency pushbutton	Red	d	40037A	0.30
	Mushroom turn-to-release emergency pushbutton	Red	e	40040	0.27
	Key-operated mushroom turn-to-release emergency pushbutton	Red	e	40040A	0.30
	Rotary pushbutton	Black	f	40039	0.27
	Key-operated pushbutton	Black	g	40038	0.27
	Pushbutton with indicator	Red	a	40057A	0.15
		Green	b	40057B	0.15
		Yellow	c	40057C	0.15
		Blue	d	40057D	0.15

Components for BZC Control Stations
HA Flameproof pushbutton

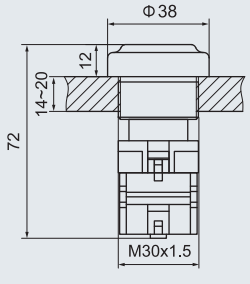
Selection table of pushbutton contact

Version	Specification	Contact code	Ordering code	Weight (kg)
 Screw type	 1NC	T1	40023	0.03
	 1NO	S1	40024	0.03

Accessories

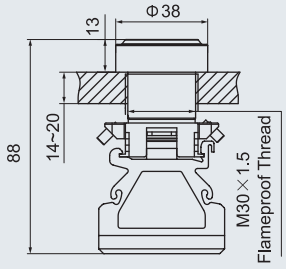
Description	Material	Ordering code	Weight (kg)
Emergency pushbutton protection cover 	PC	40196	0.03
Emergency pushbutton protection cover 	Stainless steel	40197	0.15

Dimension drawings (all dimensions in mm) - subject to alteration



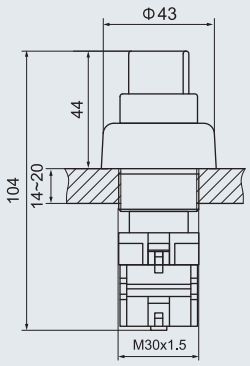
Flameproof Thread

Spring-return pushbutton

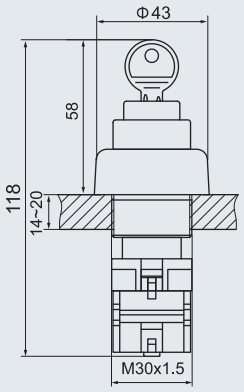


Pushbutton with indicator

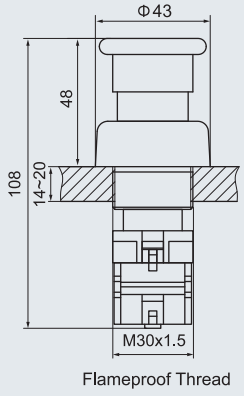
Dimension drawings (all dimensions in mm) - subject to alteration



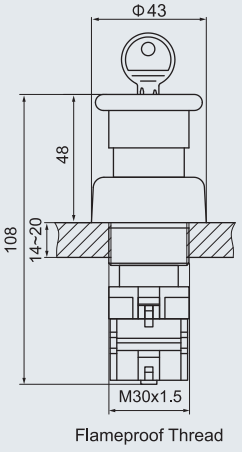
Rotary pushbutton



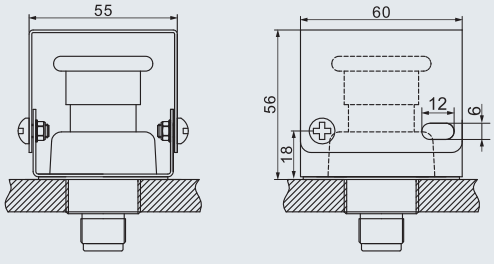
Key-operated pushbutton



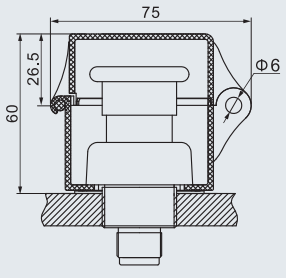
Mushroom stay-put/ turn-to-release emergency pushbutton



Key-operated mushroom stay-put emergency pushbutton



HA Emergency pushbutton with stainless steel protection cover



HA Emergency pushbutton with PC protection cover

Components for BZC Control Stations
HD Series Indicators



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Available in
  - -red
  - -green
  - -yellow
  - -blue
  - -white
- Two versions
  - -screw connection
  - -2m cable connection

Catalogue number logic

HD(D for short)

D - □ □

- Indicator code
- I: Screw connection (optional)
- II: 2m cable connection
- Indicators

Technical data

Indicator HD-**

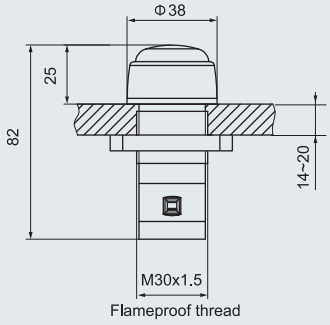
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	EPT 17 ATEX 2649U; IECEx CQM 17.0008U
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Rated voltage	400V AC, 50/60Hz; 220~415V AC, 50/60Hz; 220V DC; 48~120V AC/DC; 12~36V AC/DC
Degree of protection	IP66
Ambient temperature	-60℃~+70℃

Zones 1&2; 21&22

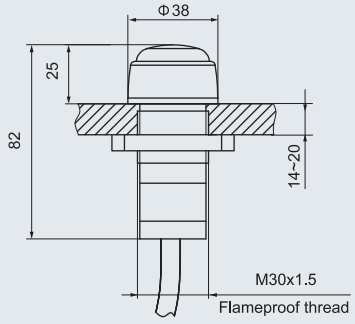
Selection table

Version	Rated voltage	Schematic diagram	Colour	Code	Ordering code	Weight (kg)
I: Screw connection 	220~415V AC		Red	Ra	40041A	0.10
			Green	Ga	40042A	
			Yellow	Ya	40043A	
			Blue	Ba	40162A	
			White	Wa	40044A	
	220V DC		Red	Rb	40045A	0.10
			Green	Gb	40046A	
			Yellow	Yb	40047A	
			Blue	Bb	40163A	
			White	Wb	40048A	
	48~120V AC/DC		Red	Rc	40049A	0.10
			Green	Gc	40050A	
			Yellow	Yc	40051A	
			Blue	Bc	40164A	
			White	Wc	40052A	
	12~36V AC/DC		Red	Rd	40053A	0.10
			Green	Gd	40054A	
			Yellow	Yd	40055A	
			Blue	Bd	40165A	
			White	Wd	40056A	
II: 2m cable connection 	220~415V AC		Red	Ra	40041B	0.30
			Green	Ga	40042B	
			Yellow	Ya	40043B	
			Blue	Ba	40162B	
			White	Wa	40044B	
	220V DC		Red	Rb	40045B	0.30
			Green	Gb	40046B	
			Yellow	Yb	40047B	
			Blue	Bb	40163B	
			White	Wb	40048B	
	48~120V AC/DC		Red	Rc	40049B	0.30
			Green	Gc	40050B	
			Yellow	Yc	40051B	
			Blue	Bc	40164B	
			White	Wc	40052B	
	12~36V AC/DC		Red	Rd	40053B	0.30
			Green	Gd	40054B	
			Yellow	Yd	40055B	
			Blue	Bd	40165B	
			White	Wd	40056B	

Dimension drawings (all dimensions in mm) - subject to alteration



I: Screw connection



II: 2m cable connection(cable specification: 2×1.5mm²)

Components for BZC Control Stations
HK Series Control Switches



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Available in latching and spring-return forms.
- Different function options.
- Number of pole: 2P, 3P, 4P, 6P.
- The switch shall be fitted inside Ex d enclosure.

Catalogue number logic

HK(K for short)

K - □

- □ — Control switch code
- K — Control switches

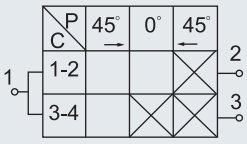
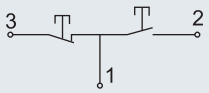
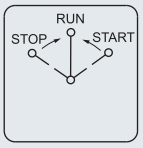
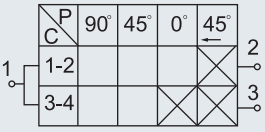
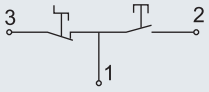
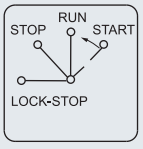
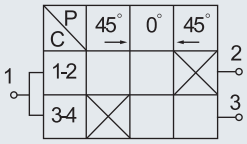
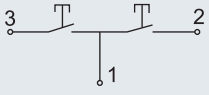
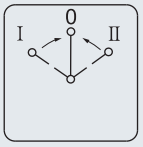
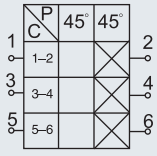
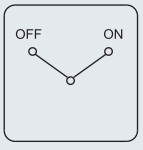
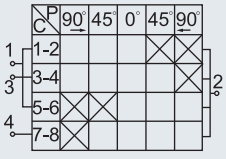
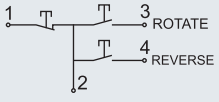
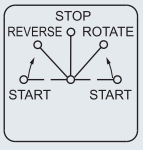
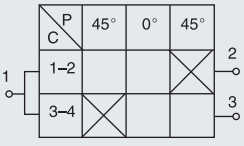
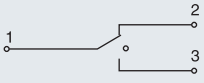
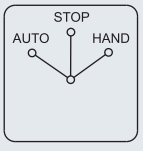
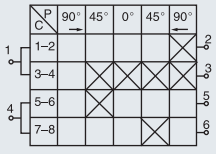
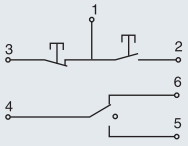
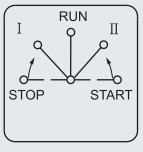
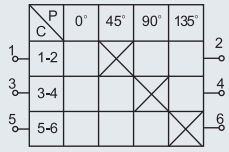
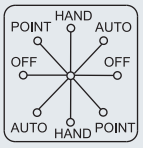
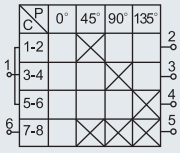
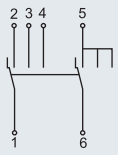
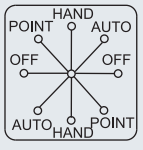
Technical data

HK Control Switche

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db
Certificates	CML 17 ATEX 1036U; IECEx CML 17.0166U
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Rated voltage	500V AC, 400V DC
Rated current	16A
Degree of protection	IP66
Ambient temperature	-60℃~+70℃

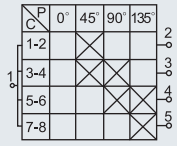
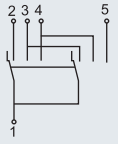
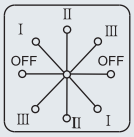
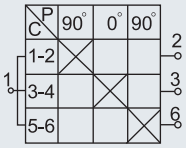
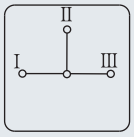
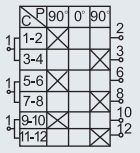
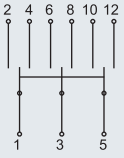
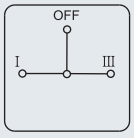
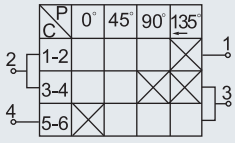
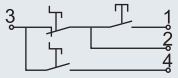
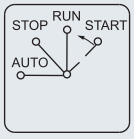
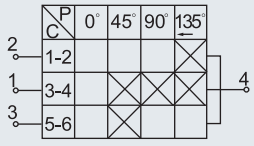
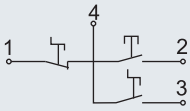
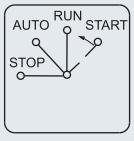
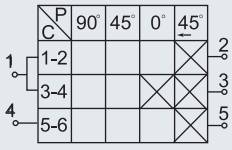
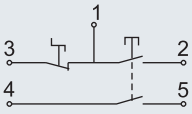
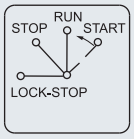
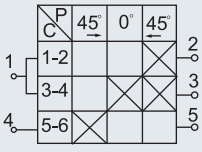
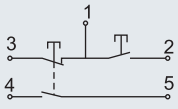
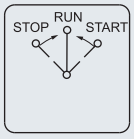
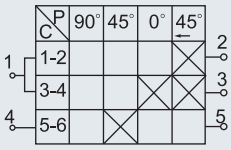
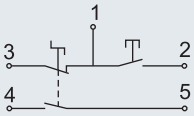
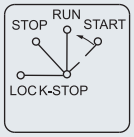
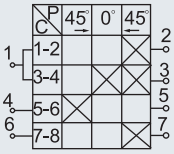
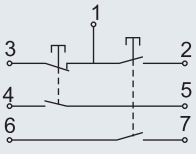
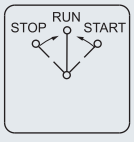
Zones 1&2; 21&22

Selection table

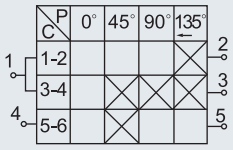
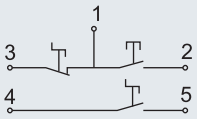
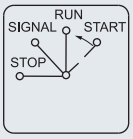
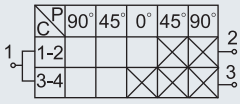
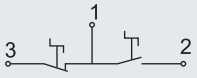
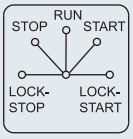
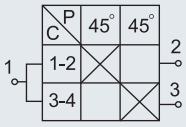
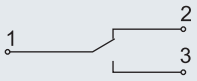
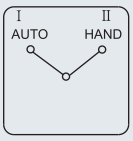
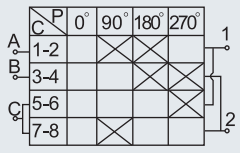
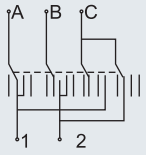
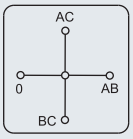
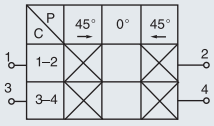
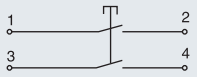
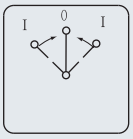
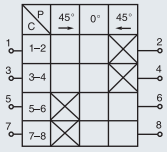
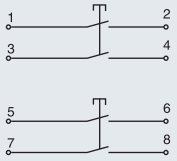
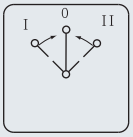
Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
a				a.Functional wiring is the same as double buttons with auto-reset function.
b				b.Functional wiring is the same as double buttons; auto-reset after start; lock-stop gear added to avoid mistake operation.
c				c.Button with 2 NO contacts and available at auto-reset function. Suitable for high-voltage engine control circuit or function panel uses switch code "a".
d				d.Low-power switch.
e				e.Function is same as three buttons; able to control engine in forward and backward rotation. FW&BW starting positions can auto-reset.
f				f.Selection switch with stop gear in the intermediate zone.
g				g.Be equal to mounting two buttons and one changeover switch in one axis. Possible to output contact signal or monitoring signal between start and stop.
h				h.Multi-signals transmit gradually.
I				i.Add function of transmitting resultant signal on the base of function panel uses switch code "h".

Components for BZC Control Stations
HK Series Control Switches

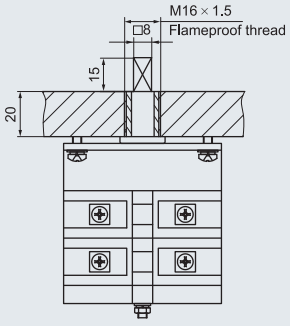
Selection table

Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
j				j. Two positions step; change-over gradually.
k				k. Changeover switch.
l				l. Selection switch with three poles and two launches.
m				m.Three-position changeover switch among auto, manual and start; auto-reset after start; it can convert to auto gear only after passing stop gear.
n				n.Structure is a little different to universal structure of switch code "m"; it directly rotates to auto gear without passing stop gear after starts.
o				o.Double contacts auto reset for start, with lock-stop gear.
p				p.Double contacts for stop, to substitute switch code "a" and "c" for start and stop; auto-reset.
q				q.Stop with double contacts, with lock stop gear; auto-reset after start.
r				r.Double contacts for both start and stop; it is same as universal panel of switch code “a” , with auto-reset for start and stop.

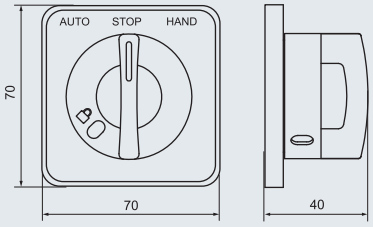
Selection table

Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
S				s.Transmit a contact signal before start and stop.
t				t.With lock-stop gear for start and stop to prevent mistake operation; without auto-reset.
u				u.Double-control selection switch.
v				v.Changeover switch for voltage phase-changing and measuring.
w				w.One 2NO auto-reset pushbutton, both left and right are the same.
x				x.Two 2NO auto-reset buttons.

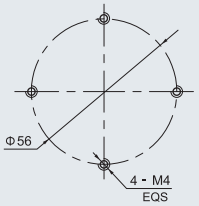
Dimension drawings (all dimensions in mm) - subject to alteration



Cover mounting

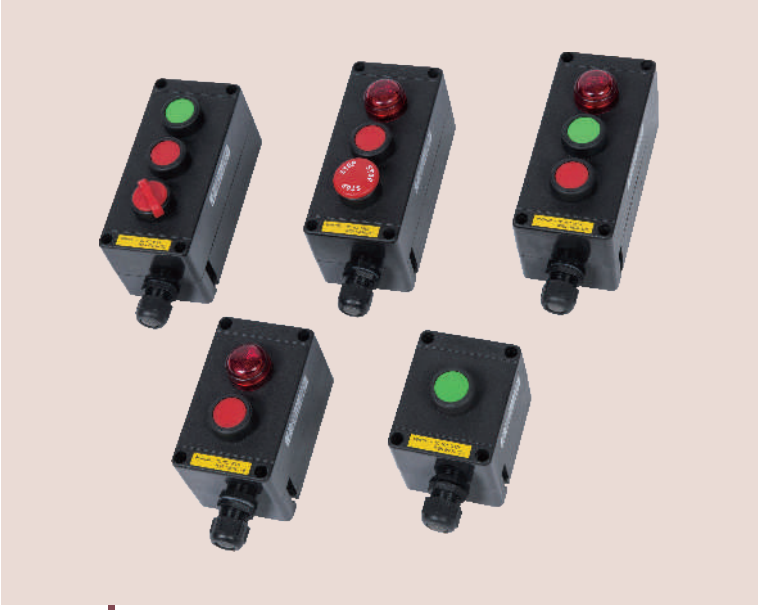


Rotary actuator



Mounting hole

Control Unit Systems
BZA8050 Series Explosion-proof Control Unit Systems



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- GRP (glass fibre-reinforced polyester resin) enclosure.
- Three types of enclosure.
- Individual unit can be combined into larger units.

Catalogue number logic

BZA 8050 - A□D□

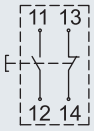
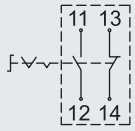
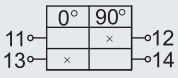
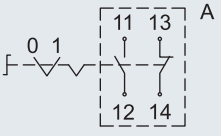
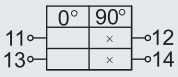
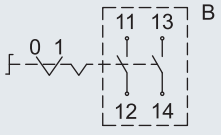
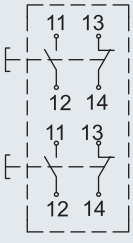
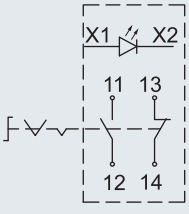
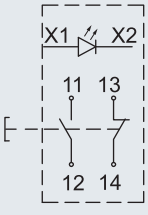
- Number of indicator
- Indicator (optional)
- Number of control button
- Control button (optional)
- Design No.
- Explosion-proof control unit systems

Note

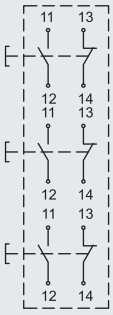
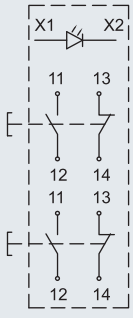
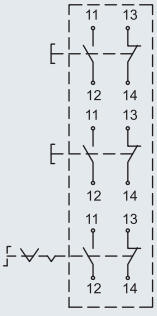
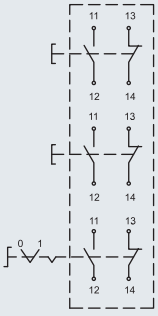
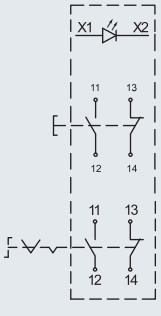
1. Please refer to the Selection table on P4/19~20.
2. Please select internal components as below:
   Selection table of BA8050 control button on P4/38~41 (Nominal contact is 1NO+1NC);
   Selection table of BD8050 indicator on P4/42~44;
3. Example: BZA8050-A2
   Components: two control buttons
   Tech. Details: One start control button (40092B + 40090-1+40091-1, green, 1NO+1NC);
   One stop control button (40092A+ 40090-1+40091-1, red, 1NO+1NC);
4. Special requirements on request.

Zones 1&2; 21&22

Selection table

Outline	Colour	Chart of contact	Ordering code	Weight (kg)
Spring-return button 	Red		40063A	0.65
	Green		40063B	
Mushroom stay-put emergency button 	Red		40064	0.65
Rotary button 			40065A	0.65
			40065B	0.65
Spring-return button 	Green		40066	0.85
	Red			
Indicator and mushroom stay-put emergency button 	Red		40067	0.85
	Red			
Indicator and spring-return button 	Red		40068	0.85
	Red			

Selection table

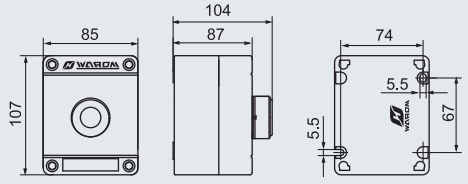
Outline	Colour	Chart of contact	Ordering code	Weight (kg)
Spring-return button 	Yellow Green Red		40069	1.10
Spring-return button and indicator 	Red Green Red		40070	1.10
Spring-return button and mushroom stay-put emergency button 	Green Red Red		40071	1.10
Spring-return button and rotary button 	Green Red Red		40072	1.10
Indicator, spring-return button and mushroom stay-put emergency button 	Red Red Red		40073	1.10

Technical data

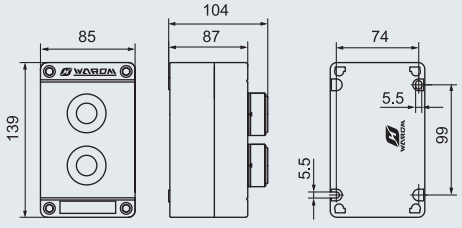
Explosion-proof control unit systems BZA8050

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP65
Certificates	LCIE 09 ATEX 3097; IECEx CQM 11.0018
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Enclosure colour	Black
Exposed fastener	Stainless steel
Rated voltage	Max. 415V AC
Rated current	10A
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Cable entries	1 x M25 x 1.5 cable gland (DQM- I, plastic)
Available cable outer diameter	Φ9~Φ16 (mm)

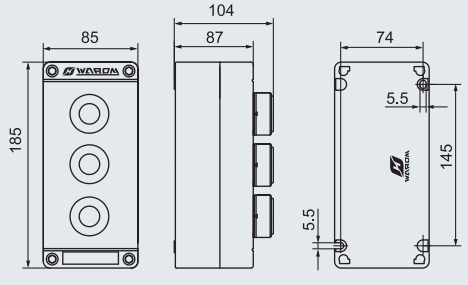
Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure I



Enclosure II



Enclosure III

Control Unit Systems
BZA85 Series Explosion-proof Control Unit Systems



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Copper-free aluminium, powder coated surface.

Catalogue number logic

BZA85 - A □ B □ D □

- Number of indicator
- Indicator (optional)
- Number of ammeter / voltmeter
- Ammeter / Voltmeter (optional)
- Number of pushbutton
- Pushbutton (optional)
- Explosion-proof control unit systems

Note

1. Please refer to the Selection table on P4/23~24.
2. Please select internal components as below:
   Selection table of HA pushbutton on P4/8~11 (nominal contact is 1NO+1NC);
   Selection table of HD indicator on P4/12~13;
   Dimension drawings of ammeter (type 48) and voltmeter (type 48) see P4/25.
3. Example: BZA85-A1
   Components: One control button
   Tech. Details: One start control button (40036B + 40033, green, 1NO+1NC)
4. Special requirements on request.

Zones 1&2; 21&22

Technical data

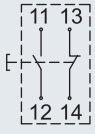
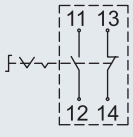
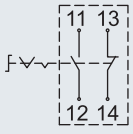
Explosion-proof control unit systems BZA85

Explosion protection	
Gas explosion protection	Ⅱ 2 G Ex db ⅡC T6 Gb
Dust explosion protection	Ⅱ 2 D Ex tb ⅢC T80℃ Db IP66
Certificates	ATEX (applied for); IECEx CQM 17.0021X; CU-TR
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max.500V AC, 250V DC
Rated current	Max.10A (AC), 6A (DC)
Degree of protection	IP66, IP67(optional)
Ambient temperature	-60℃ ~+60℃
Components	
HA pushbutton	Technical data on P4/8~11
HD indicator	Technical data on P4/12~13
Ammeter (type 48) / Voltmeter (type 48)	

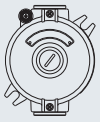
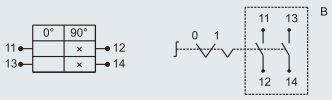
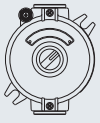
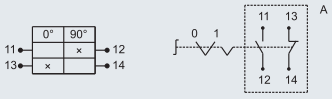
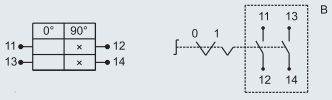
	Working mode	Accuracy	Overload times
Ammeter	Electromagnetic type (moving iron)	Class 1.5	5 times (2 or 6 times on request)
Voltmeter			-

Cable entries	Standard 2 x M25 x 1.5 plugs 2 x G3/4" plugs or 2 x NPT3/4" plugs on request
Cable gland (optional)	DQM-Ⅱ (Ex d) or DQM-Ⅲ (Ex d) is recommended. Please see P7/20~29.

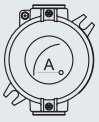
Selection table (Pushbutton / Indicator)

Outline	Colour	Chart of contact	Ordering code	Weight (kg)
Indicator 	Red		40171A	0.65
	Green		40171B	
Spring-return button 	Red		40172A	0.65
	Green		40172B	
Mushroom stay-put emergency pushbutton 	Red		40173	0.7
Mushroom turn-to-release emergency pushbutton 	Red		40174	0.7

Selection table (Pushbutton)

Outline	Chart of contact	Ordering code	Weight (kg)
Key-operated pushbutton 	 A	40175A	0.7
	 B	40175B	0.7
Rotary button 	 A	40176A	0.7
	 B	40176B	0.7

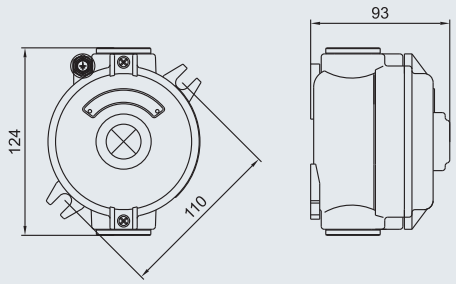
Selection table (Ammeter)

Version	Description	Overload scale	Measuring range	Ordering code	Weight (kg)
	Direct measuring	2 times	0~20/40 mA	40177	0.70
			4~20/40 mA	40178	
	Direct measuring	2 times	0~1 A	40179	
			0~5 A	40180	
	For CT (current transformer)	2 times or 6 times	sek. 1 A	40181	
			sek. 5 A	40182	

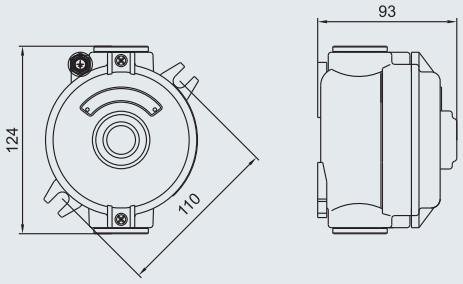
Selection table (Voltmeter)

Version	Description	Measuring range	Ordering code	Weight (kg)
	Direct measuring	0~10 V	40183	0.70
		0~25 V	40184	
		0~40 V	40185	
		0~60 V	40186	
		0~100 V	40187	
		0~150 V	40188	
		0~250 V	40189	
		0~300 V	40190	
		0~450 V	40191	
		0~500 V	40192	
	For PT (potential transformer)	sek. 100 V	40193	
		sek. 110 V	40194	
		sek. 120 V	40195	

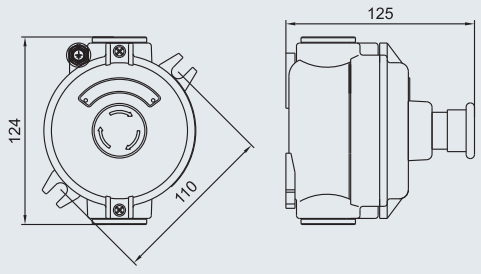
Dimension drawings (all dimensions in mm) - subject to alteration



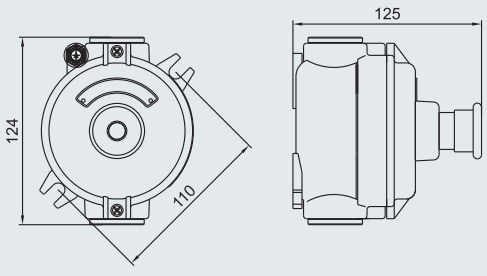
Indicator



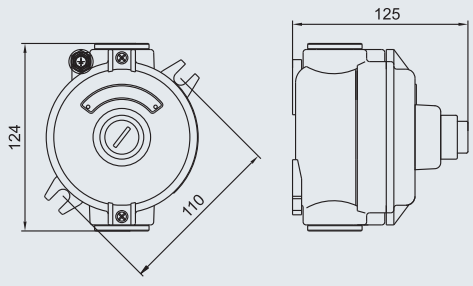
Spring-return button



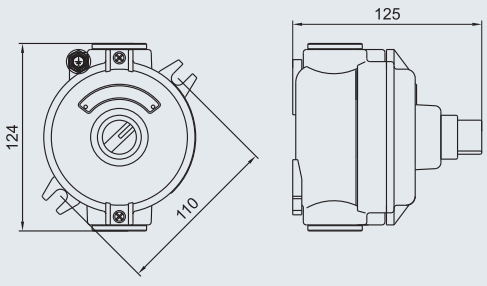
Mushroom turn-to-release emergency pushbutton



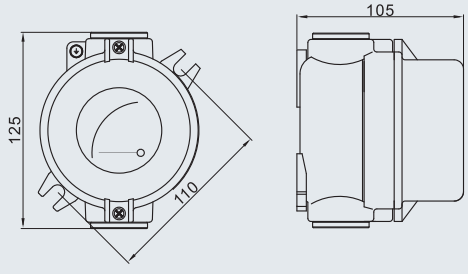
Mushroom stay-put emergency pushbutton



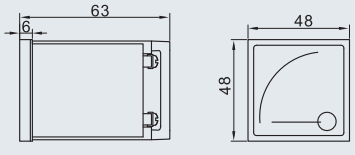
Key-operated pushbutton



Rotary button

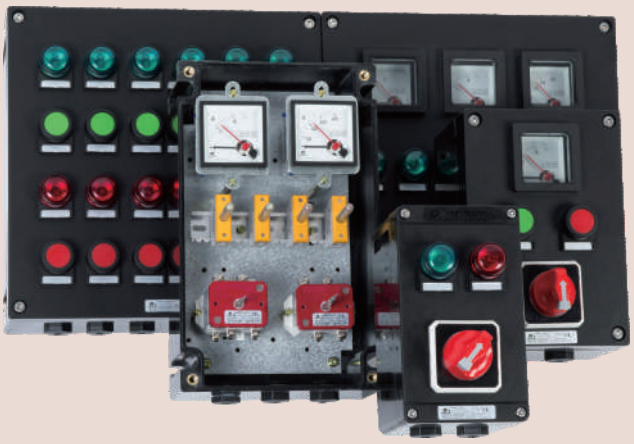


Ammeter / Voltmeter



Ammeter (48 type) / Voltmeter (48 type)

Control Stations
BZC8050 Series Control Stations (GRP)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- GRP (glass fibre-reinforced polyester resin) enclosure.
- Four types of enclosure.

Catalogue number logic

BZC 8050 - A □ B □ D □ K □ □

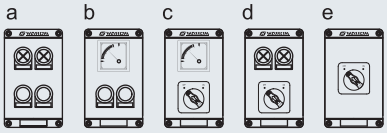
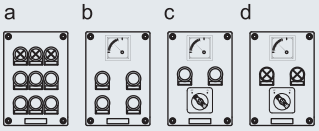
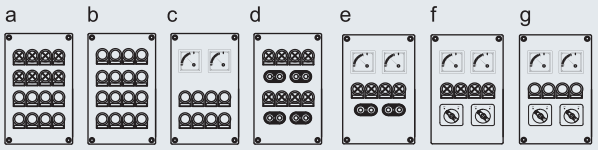
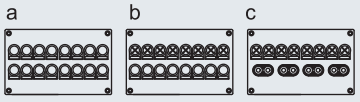
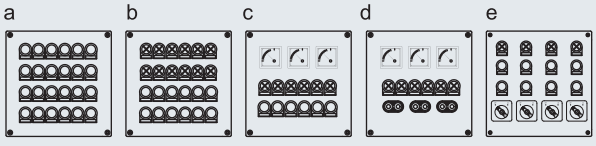
- Mounting: G: surface type; L: pole type
- Number of control switch
- Control switch (optional)
- Number of indicator
- Indicator (optional)
- Number of ammeter/voltmeter
- Ammeter/Voltmeter (optional)
- Number of control button
- Control button (optional)
- Design No.
- Control stations

Note

1. Please refer to the Selection table on P4/27.
2. Please select internal components as below:
   Selection table of BA8050 control button on P4/38~41 (nominal contact is 1NO+1NC);
   Selection table of BD8050 indicator on P4/42~44;
   Selection table of BK8050 control switch on P4/45~50;
   Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC8050-A2D2G
   Components: Two control buttons, two indicators; surface type
   Tech. Details: One start control button (40092B + 40090-1+40091-1, green, 1NO+1NC);
   One stop control button (40092A+ 40090-1+40091-1, red, 1NO+1NC);
   One indicator (40116+40100-2, green, 230V AC);
   One indicator (40115+40099-2, red, 230V AC);
4. Special requirements on request.

Zones 1&2; 21&22

Selection table of control station BZC8050(GRP)

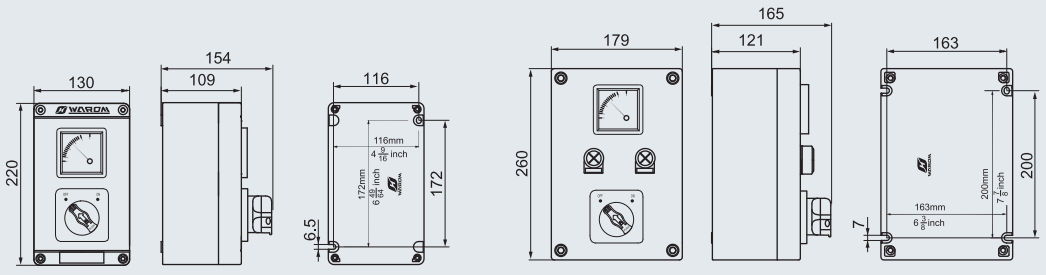
Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I		2-M25 x 1.5 Bottom entry	40074.....	1.30
II		1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40075.....	2.10
III		1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40076.....	3.25
IIIx		1-M40 x 1.5 or 2-M32 x1.5 or 4-M25 x 1.5 Bottom entry	40077.....	3.25
IV		1-M40 x 1.5 or 2-M32 x1.5 or 6-M25 x 1.5 Bottom entry	40078.....	4.15

Technical data

Control stations BZC8050 (GRP)

Explosion protection	
Gas explosion protection	Ⓔx Ⅱ 2 G Ex d e ⅡC T6 Gb
Dust explosion protection	Ⓔx Ⅱ 2 D Ex tb ⅢC T80℃ Db IP65
Certificates	LCIE 09 ATEX 3099; IECEx CQM 11.0029
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Enclosure colour	Black
Exposed fastener	Stainless steel
Rated voltage	Max. 415V AC
Rated current	Main circuit current: 6A (for BZC8050-A2D2, BZC8050-A2B1) 16A (for BZC8050-K1) 10A (for others)
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Components	1. Technical data of BA8050 control button on P4/38~41; 2. Technical data of BD8050 indicator on P4/42~44; 3. Technical data of BK8050 control switch on P4/45~50; 4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
Cable entries	M□ x 1.5 plug, please see the Selection table on P4/27
Cable gland (optional)	DQM-Ⅰ (Ex e) is recommended. Please see P7/16
Mounting	Surface type Pole type (for enclosure Ⅰ, Ⅱ, Ⅲ only)
Note	1. Please specify the number and size of entries (applicable for surface type only); 2. For pole type, only G1" entry is applicable;

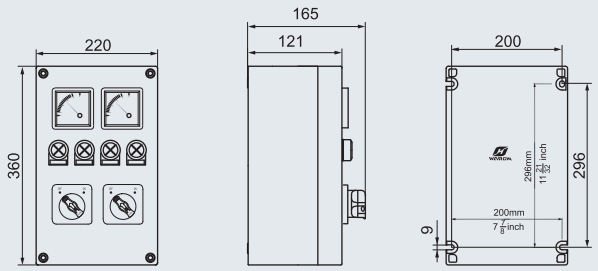
Dimension drawings (all dimensions in mm) - subject to alteration



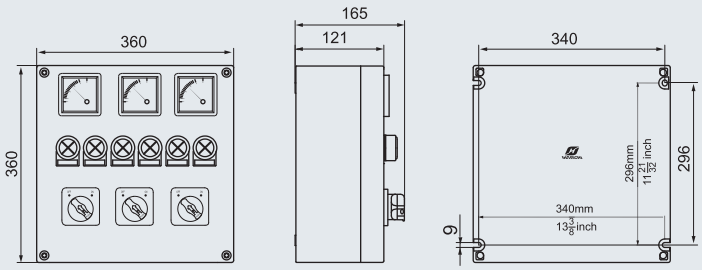
Enclosure Ⅰ

Enclosure Ⅱ

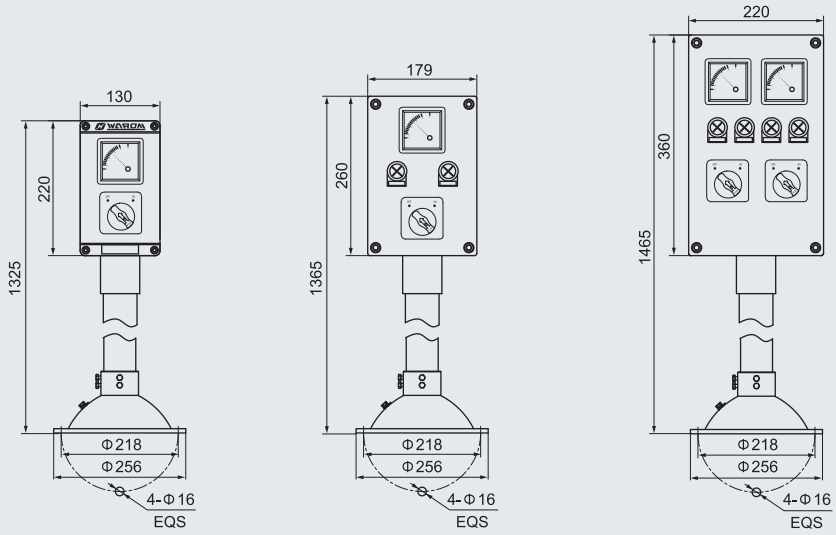
Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure III



Enclosure IV



Pole type (for enclosure I, II, III only)

Control Stations
BZC8050 Series Control Stations (Aluminium Alloy)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Copper-free aluminium enclosure, powder coated surface.
- Seven types of enclosure.

Catalogue number logic

BZC 8050 - A □ B □ D □ K □ □

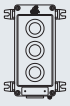
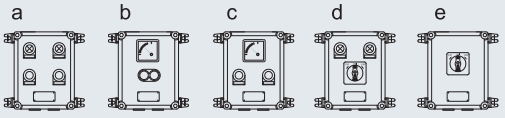
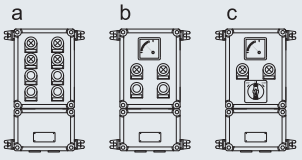
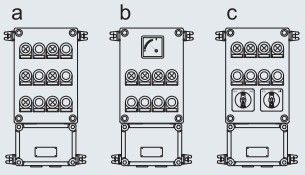
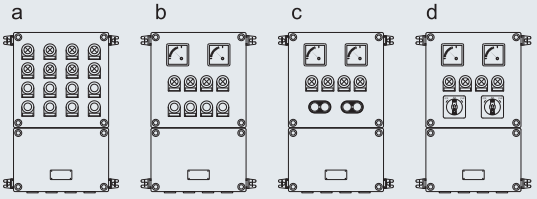
- Mounting: G: surface type; L: pole type
- Number of control switch
- Control switch (optional)
- Number of indicator
- Indicator (optional)
- Number of ammeter/voltmeter
- Ammeter/Voltmeter (optional)
- Number of control button
- Control button (optional)
- Design No.
- Control stations

Note

1. Please refer to the Selection table on P4/31.
2. Please select internal components as below:
   Selection table of BA8050 control button on P4/38~41 (Nominal contact is 1NO+1NC);
   Selection table of BD8050 indicator on P4/42~44;
   Selection table of BK8050 control switch on P4/45~50;
   Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC8050-A2D2G
   Components: Two control buttons, two indicators; surface type
   Tech. Details: One control start button (40092B + 40090-1+40091-1, green, 1NO+1NC);
   One control stop button (40092A+ 40090-1+40091-1, red, 1NO+1NC);
   One indicator (40116+40100-2, green, 230V AC);
   One indicator (40115+40099-2, red, 230V AC);
4. Special requirements on request.

Zones 1&2; 21&22

Selection table of control station BZC8050 (aluminium alloy)

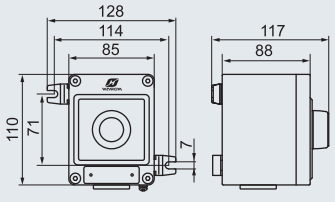
Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I		1-M25 x 1.5 Bottom entry	40079	0.65
II		1-M25 x 1.5 Bottom entry	40080	0.85
III		1-M25 x 1.5 Bottom entry	40081	1.10
IV		2-M25 x 1.5 Bottom entry	40082.....	3.75
V		1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40083.....	6.50
VI		1-M40 x 1.5 or 2-M32 x1.5 or 4-M25 x 1.5 Bottom entry	40084.....	9.00
VII		1-M40 x 1.5 or 2-M32 x1.5 or 6-M25 x 1.5 Bottom entry	40085.....	13.70

Technical data

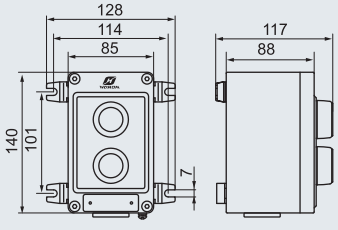
Control stations BZC8050 (aluminium alloy)

Explosion protection	
Gas explosion protection	Ⅱ 2 G Ex d e ⅡC T6 Gb
Dust explosion protection	Ⅱ 2 D Ex tb ⅢC T80℃ Db IP65
Certificates	LCIE 09 ATEX 3099; IECEx CQM 11. 0029
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Rated voltage	Max. 415V AC
Rated current	Main circuit current: 6A (for BZC8050-A2D2, BZC8050-A2B1) 16A (for BZC8050-K1) 10A (for others)
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Internal&external earthing	Ⅰ, Ⅱ, Ⅲ: M4/M4; Ⅳ, Ⅴ, Ⅵ,Ⅶ: M6/M6
Components	1. Technical data of BA8050 control button on P4/38~41; 2. Technical data of BD8050 indicator on P4/42~44; 3. Technical data of BK8050 control switch on P4/45~50; 4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
Cable entries	M□ x 1.5 plug, please see the Selection table on P4/31
Cable gland (optional)	DQM-Ⅰ (Ex e) is recommended. Please see P7/17~19
Mounting	Surface type Pole type (for enclosure Ⅳ, Ⅴ, Ⅵ only)
Note	1. Please specify the number and size of entries (applicable for surface type only); 2. For pole type, only G1" entry is applicable;

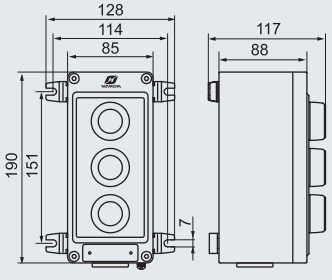
Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure Ⅰ

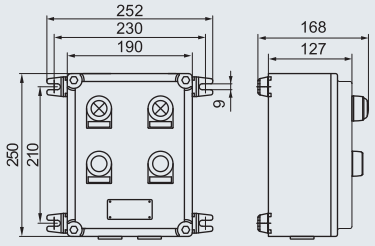


Enclosure Ⅱ

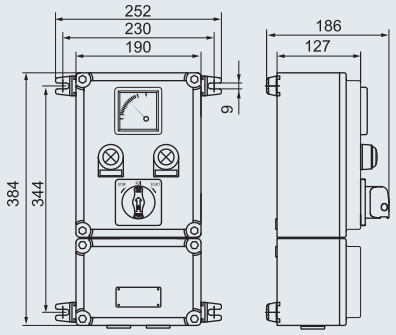


Enclosure Ⅲ

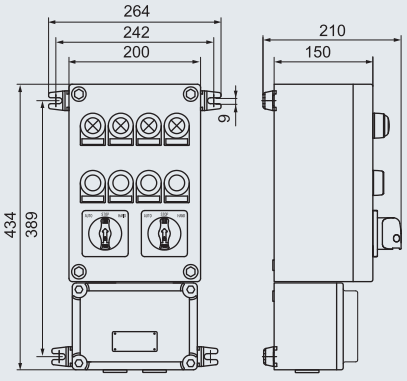
Dimension drawings (all dimensions in mm) - subject to alteration



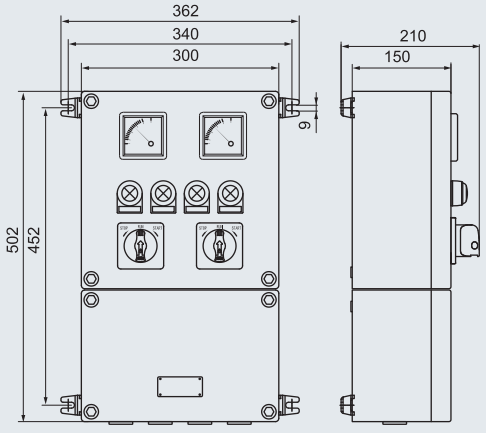
Enclosure IV



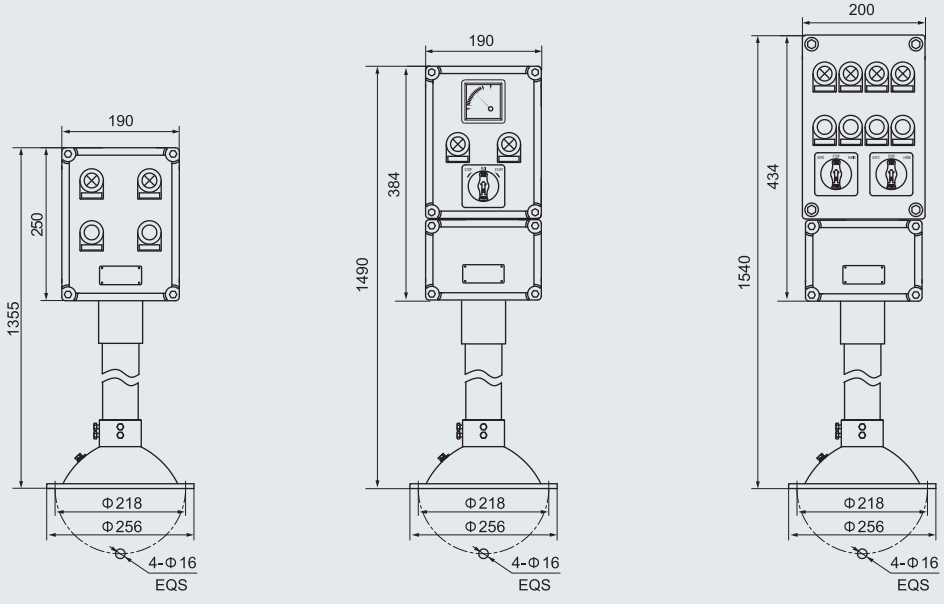
Enclosure V



Enclosure VI

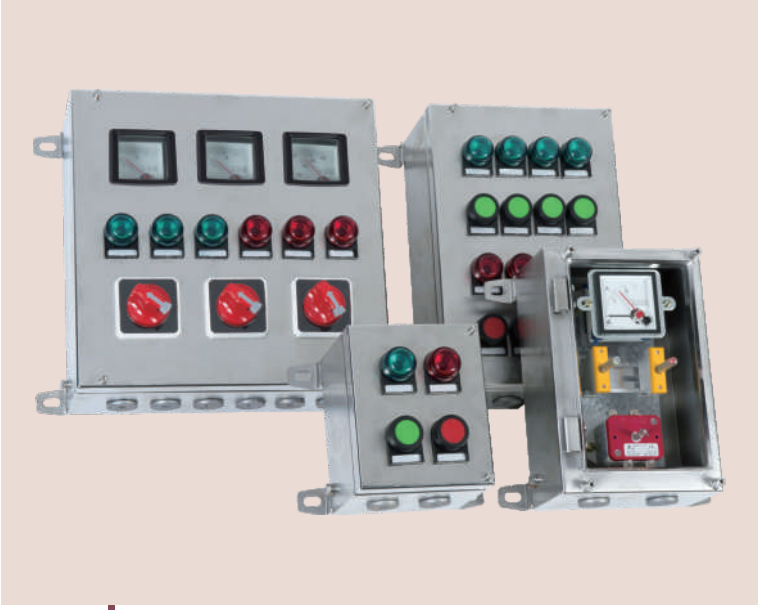


Enclosure VII



Pole type(for enclosure IV, V, VI only)

Control Stations
BZC8050 Series Control Stations (Stainless Steel)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Stainless steel enclosure.
- Four types of enclosure.

Catalogue number logic

BZC 8050 - A □ B □ D □ K □ □

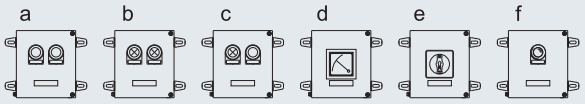
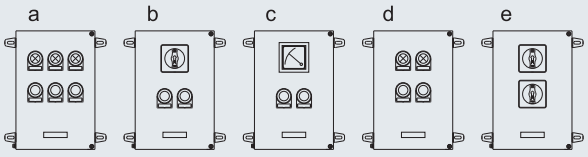
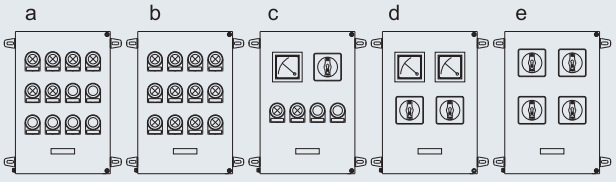
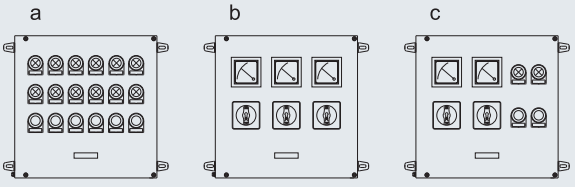
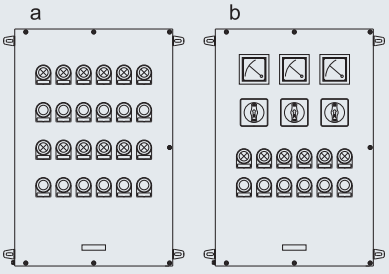
- Mounting — G: surface type; L: pole type
- Number of control switch
- Control switch (optional)
- Number of indicator
- Indicator (optional)
- Number of ammeter/voltmeter
- Ammeter/Voltmeter (optional)
- Number of control button
- Control button (optional)
- Design No.
- Control stations

Note

1. Please refer to the Selection table on P4/35.
2. Please select internal components as below:
   Selection table of BA8050 control button on P4/38~41 (Nominal contact is 1NO+1NC);
   Selection table of BD8050 indicator on P4/42~44;
   Selection table of BK8050 control switch on P4/45~50;
   Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC8050-A2D2G
   Components: Two control buttons, two indicators; surface type
   Tech. Details: One control start button (40092B + 40090-1+40091-1, green, 1NO+1NC);
   One control stop button (40092A+ 40090-1+40091-1, red, 1NO+1NC);
   One indicator (40116+40100-2, green, 230V AC);
   One indicator (40115+40099-2, red, 230V AC);
4. Special requirements on request.

Zones 1&2; 21&22

Selection table of control station BZC8050 (stainless steel)

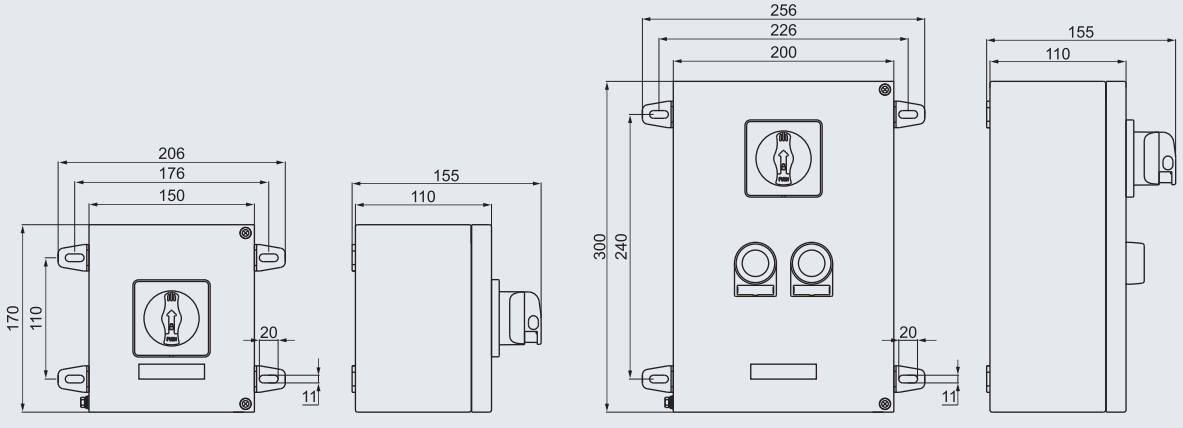
Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I		2-M25 x 1.5 Bottom entry	40086.....	2.80
II		1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40087.....	4.50
III		1-M40 x 1.5 or 2-M32 x 1.5 or 4-M25 x 1.5 Bottom entry	40088.....	6.75
IV		1-M40 x 1.5 or 2-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40089.....	10.25
V		1-M50 x 1.5 or 2-M40 x 1.5 or 6-M32 x 1.5 Bottom entry	40090.....	16.50

Technical data

Control stations BZC8050 (stainless steel)

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP65
Certificates	LCIE 09 ATEX 3099; IECEx CQM 11. 0029
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	Stainless steel
Enclosure colour	Metal colour
Exposed fastener	Stainless steel
Rated voltage	Max. 415V AC
Rated current	Main circuit current: 6A (for BZC8050-A2D2, BZC8050-A2B1) 16A (for BZC8050-K1) 10A (for others)
Degree of protection	IP65
Internal&external earthing	M6/M6
Ambient temperature	-20℃~+55℃
Components	1. Technical data of BA8050 control button on P4/38~41; 2. Technical data of BD8050 indicator on P4/42~44; 3. Technical data of BK8050 control switch on P4/45~50; 4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
Cable entries	M□ x 1.5 plug, please see the Selection table on P4/35
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~19
Mounting	Surface type Pole type (for enclosure I,II, III only)
Note	1. Please specify the number and size of entries (applicable for surface type only); 2. For pole type, only G1" entry is applicable;

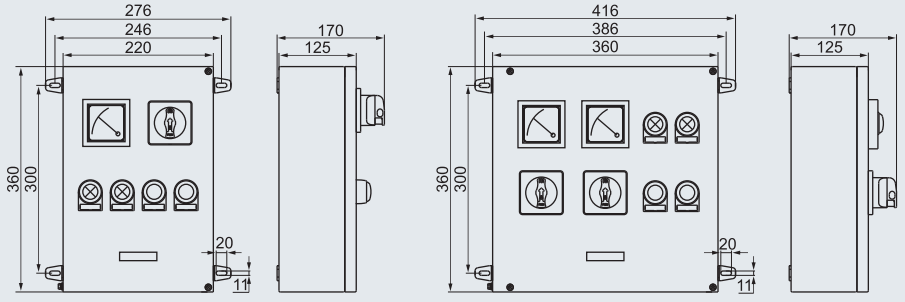
Dimension drawings (all dimensions in mm) - subject to alteration



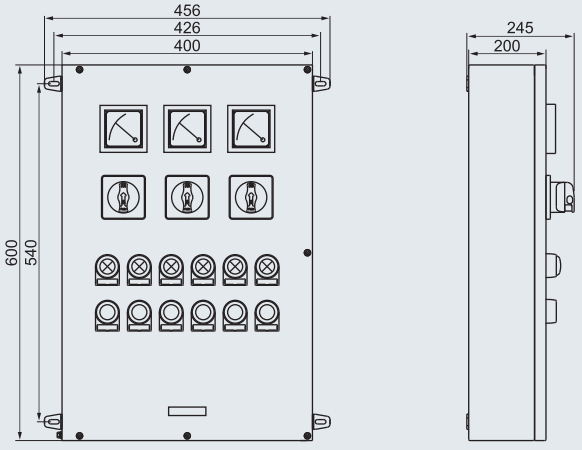
Enclosure I

Enclosure II

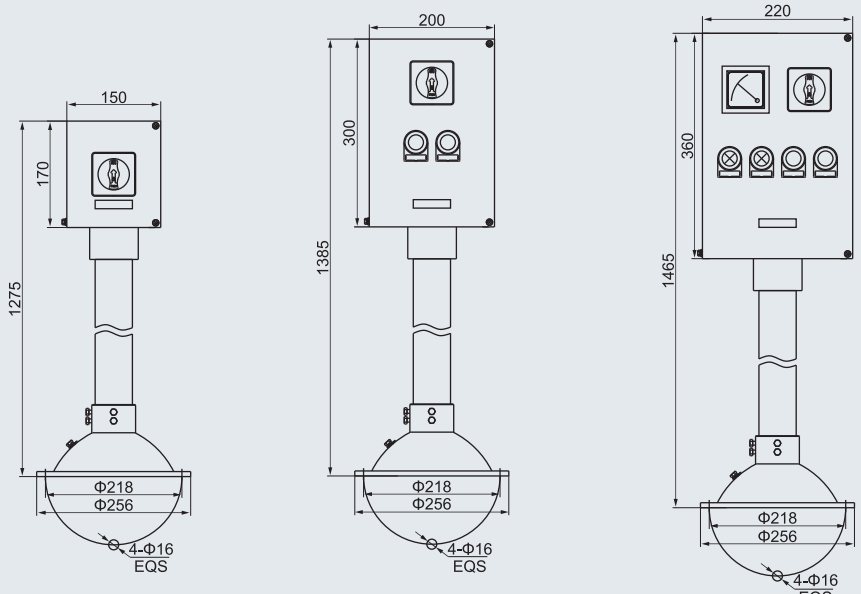
Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure III Enclosure IV



Enclosure V



Pole type (for enclosure I, II, III only)

Components for BZC8050 Control Stations
BA8050 Series Control Buttons



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- 2 versions of component
  - -1 NO
  - -1 NC
- Six different ways of operation
  - -Spring-return control button
  - -Mushroom stay-put emergency control button
  - -Key-operated control button
  - -Rotary control button
  - -Double control button
  - -Mushroom turn-to-release emergency control button
- Mushroom stay-put emergency pushbutton/ mushroom turn-to-release emergency pushbutton can be equipped with protection cover, please specify when ordering. Material of protection cover: stainless steel and PC, please specify when ordering.

Catalogue number logic

BA8050(A for short)

A - □ □ □

- Contact code
- Control button code
- I: Cover mounting
- II: Rail mounting
- Control buttons

Zones 1&2; 21&22

Selection table

Version	Description	Contact code	Ordering code	Weight (kg)
 a: Cover mounting	11 1NC 12	R	40090-1	0.06
	11 1NO 12	S	40090-2	0.06
 b: Rail mounting	11 1NC 12	R	40091-1	0.05
	11 1NO 12	S	40091-2	0.05

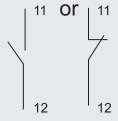
The last number of ordering code: 1 - cover mounting; 2 - rail mounting

Selection table

Version	Description		Code	Ordering code	Weight (kg)
	Spring-return control button	Red Green Yellow	a b c	40092A 40092B 40092C	0.05
	Mushroom stay-put emergency control button	Red	d	40093	0.05
	Key-operated control button	Black	e	40094	0.05
	Rotary control button	Red	f	40095	0.05
	Mushroom turn-to-release emergency control button	Red	g	40096	0.05
	Double control button	Red/Green	h	40097	0.05
	Pushbutton with indicator	Red Green Yellow	i j k	40098A 40098B 40098C	0.05

Technical data

Control buttons BA8050

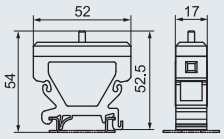
Explosion protection	Ⅱ 2 G Ex d e ⅡC Gb
Certificates	LCIE 07 ATEX 0006U; IECEx LCI 08.0013U; KZ.7500525.22.01.00374 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Enclosure material	Polyamide (PA66)
Rated voltage	Max. 415V AC
Rated current	6A
Contact type	
Switch capacity	
Mechanical life	10^6 times
Electrical life	10^6 times
Ambient temperature	-20℃~+70℃
Terminal	Suitable for 2.5mm² cable
Button element	
Material	Polyamide (PA66)
Washer	Silicon rubber
Function	
Spring-return control button	Spring-return control button
Mushroom stay-put emergency control button	Self-latching when pulled, self-locking
Key-operated control button	Rotate to lock; release with key, key movable in both ways
Rotary control button	Two-position switch function, key movable in 90°
Double control button	Spring-return control button, 1 control button element has the function of 2 control buttons
Mushroom turn-to-release emergency control button	Rotary resetting control button; self-locking

AC 11, cosj=0.7	230V-4A	415V-2.5A
DC1 L/R=1ms	60V-4A	110V-2.5A
DC11 L/R=15ms	60V-6A	110V-2.5A
L/R=30ms	4A	1.6A
L/R=100ms	2.5A	1.0A

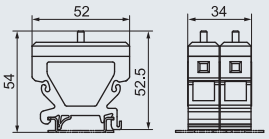
Accessories

Description	Material	Ordering code	Weight (kg)	Description	Material	Ordering code	Weight (kg)
Cover mounting bracket 	PC	40098	0.01	Emergency pushbutton protection cover 	PC	40198	0.02
Rail 	aluminium alloy (1m)	40120	0.12	Emergency pushbutton protection cover 	Stainless steel	40199	0.10

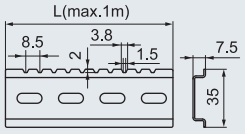
Dimension drawings (all dimensions in mm) - subject to alteration



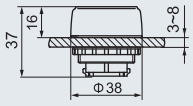
Control button, single (rail mounting)



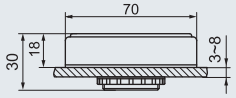
Control button, double (rail mounting)



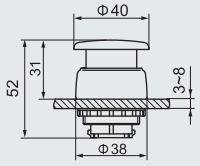
Rail



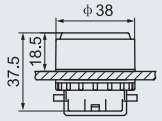
Spring-return control button



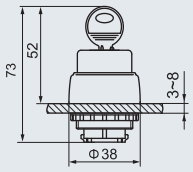
Double control button



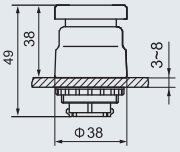
Mushroom stay-put
emergency control button



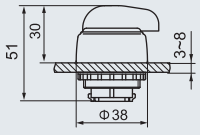
Pushbutton
with indicator



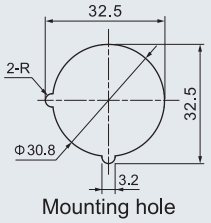
Key-operated control button



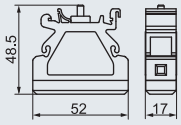
Mushroom turn-to-release
emergency control button



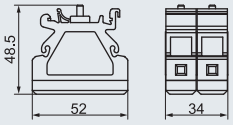
Rotary control button



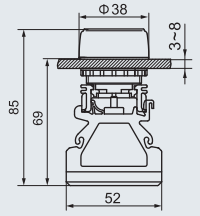
Mounting hole



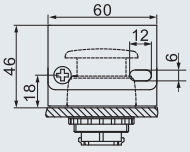
Control button ,
single (cover mounting)



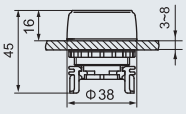
Control button,
double (cover mounting)



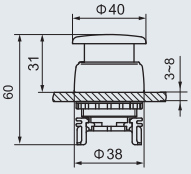
Control button
cover mounting



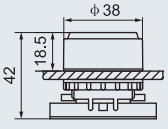
BA8050
Emergency pushbutton with
stainless steel protection cover



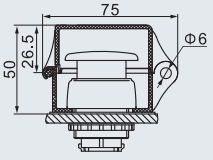
Operation for spring-return
control button



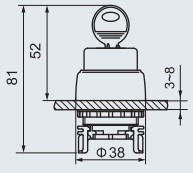
Mushroom stay-put
emergency control button



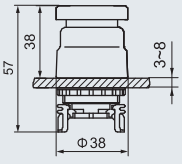
Pushbutton
with indicator



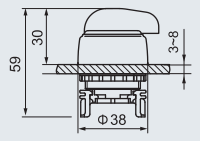
BA8050
Emergency pushbutton with
PC protection cover



Key-operated control button



Mushroom turn-to-release
emergency control button



Rotary control button

Components for BZC8050 Control Stations
BD8050 Series Indicators



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Available in
  - -red
  - -green
  - -yellow
  - -blue
  - -white
- Two mounting types
  - -cover mounting
  - -rail mounting

Catalogue number logic

BD8050(D for short)

D - □ □

- Indicator code
- I: Cover mounting
- II: Rail mounting
- Indicators

Zones 1&2; 21&22

Selection table

Version	Voltage	Schematic diagram	Colour	Code	Ordering code	Weight (kg)
Indicator  a: Cover mounting	Rated voltage: AC 230V...AC 415V Voltage range: -10%...+6% Frequency: 0Hz...60Hz		Red	Ra	40099A/40099B	0.05
			Green	Ga	40100A/40100B	
			Yellow	Ya	40101A/40101B	
			Blue	Ba	40166A/40166B	
			White	Wa	40102A/40102B	
	Rated voltage: AC/DC 48V...110V Voltage range: -10%...+6% Frequency: 0Hz...60Hz		Red	Rb	40103A/40103B	0.05
			Green	Gb	40104A/40104B	
			Yellow	Yb	40105A/40105B	
			Blue	Bb	40167A/40167B	
			White	Wb	40106A/40106B	
 b: Rail mounting	Rated voltage: AC/DC 12V...36V Voltage range: -10%...+6% Frequency: 0Hz...60Hz		Red	Rc	40107A/40107B	0.05
			Green	Gc	40108A/40108B	
			Yellow	Yc	40109A/40109B	
			Blue	Bc	40168A/40168B	
			White	Wc	40110A/40110B	
	Rated voltage: DC 220V, 380V Voltage range: -10%...+6%		Red	Rd	40111A/40111B	0.05
			Green	Gd	40112A/40113B	
			Yellow	Yd	40113A/40113B	
			Blue	Bd	40169A/40169B	
			White	Wd	40114A/40114B	
Indicator cover  I: Cover mounting			Red	a	40115A	0.05
			Green	b	40116A	
			Yellow	c	40117A	
			White	d	40118A	
			Blue	e	40170A	
Indicator cover  II: Rail mounting			Red	a	40115B	
			Green	b	40116B	
			Yellow	c	40117B	
			White	d	40118B	
			Blue	e	40170B	

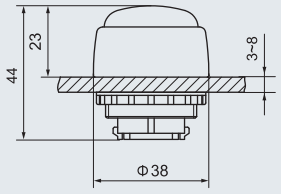
The last letter of ordering code: A-cover mounting; B-rail mounting.

Technical data

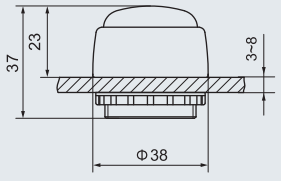
Indicators BD8050

Explosion protection	Ⓔx II 2 G Ex d e IIC Gb
Certificates	LCIE 09 ATEX 3098U; IECEx CQM 11.0012U; KZ.7500525.22.01.00374 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Rated voltage	12V...415V AC/DC (-10%...+6%)
Rated current	Max.15mA
Frequency	0Hz...60Hz
Rated output wattage	Max.1W
Service life	10^5 hours
Ambient temperature	-20℃~+70℃
Colour	Red, green, yellow, blue, white
Lamp	LED
Enclosure material	Polyamide (PA66)
Terminal	Suitable for 2.5mm² cable
Indicator cover material	PC

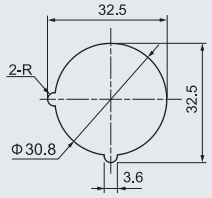
Dimension drawings (all dimensions in mm) - subject to alteration



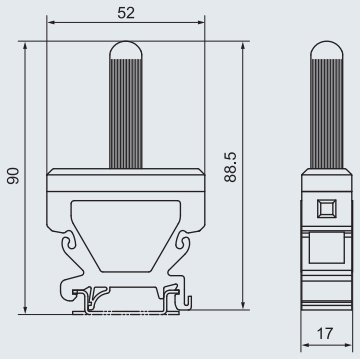
I: Cover mounting



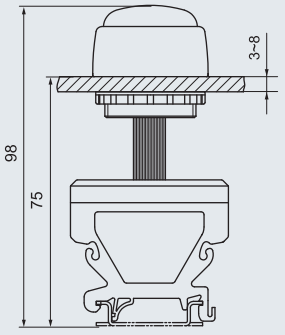
II: Rail mounting
Indicator cover



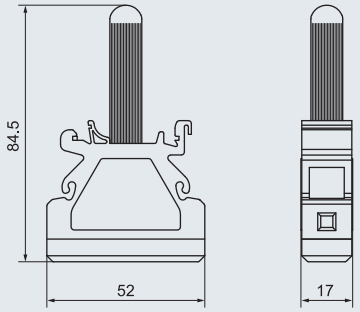
Mounting hole



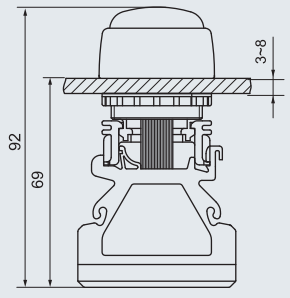
Indicator
(rail mounting)



Rail mounting



Indicator
(cover mounting)



Cover mounting

Components for BZC8050 Control Stations
BK8050 Series Control Switches

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Number of pole: 2P, 3P, 4P, 6P.
- Available in latching and spring-return forms.



Catalogue number logic

BK8050(K for short)

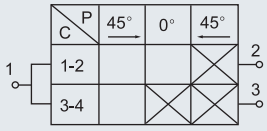
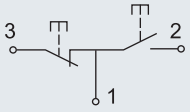
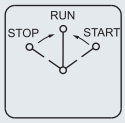
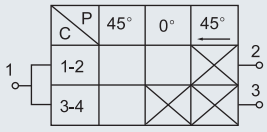
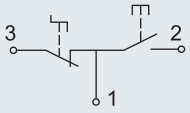
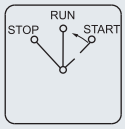
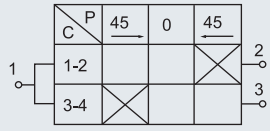
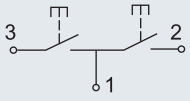
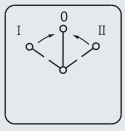
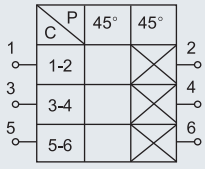
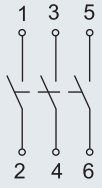
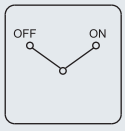
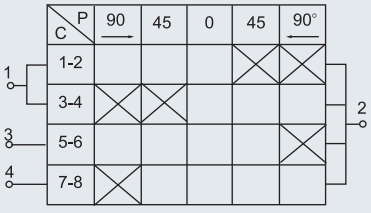
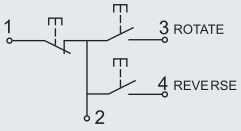
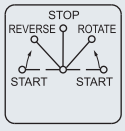
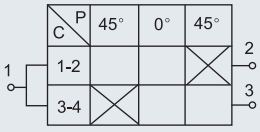
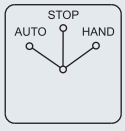
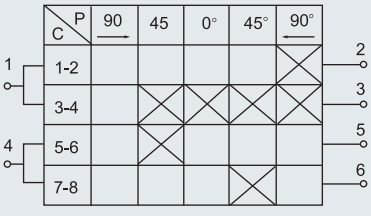
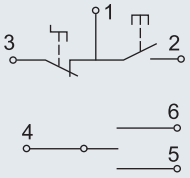
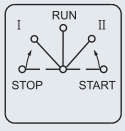
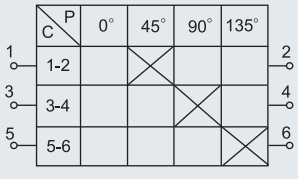
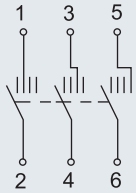
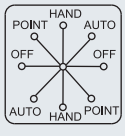
K - □

- Control switch code
- Control switches

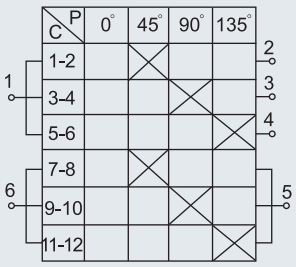
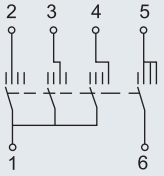
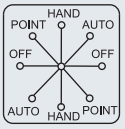
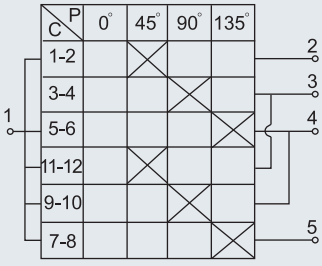
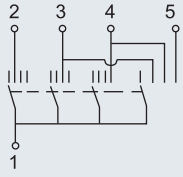
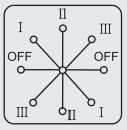
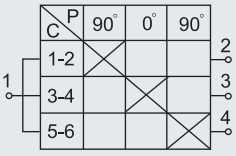
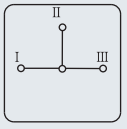
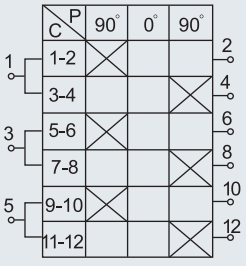
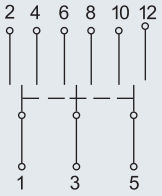
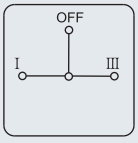
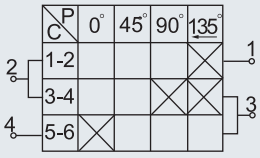
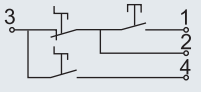
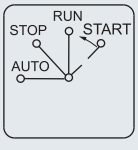
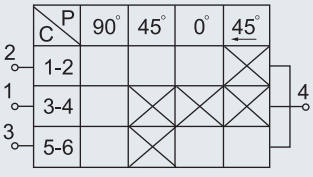
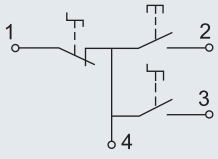
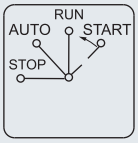
Zones 1&2; 21&22

Components for BZC8050 Control Stations
BK8050 Series Control Switches

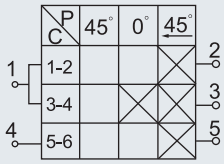
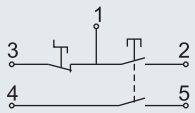
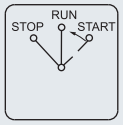
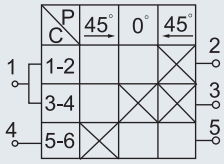
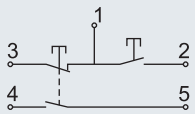
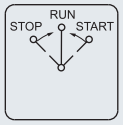
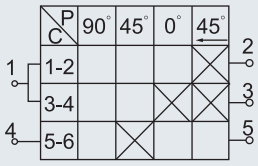
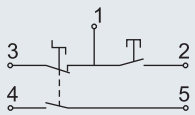
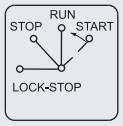
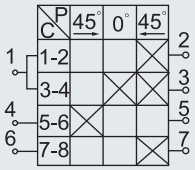
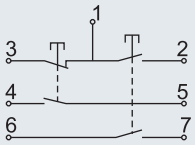
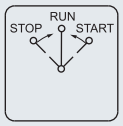
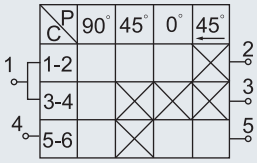
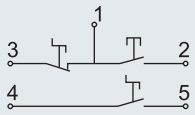
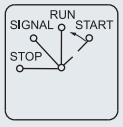
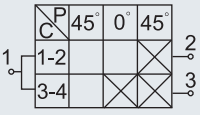
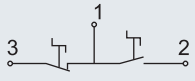
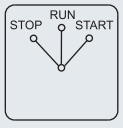
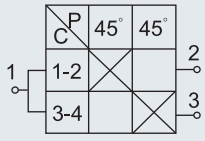
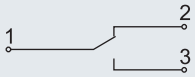
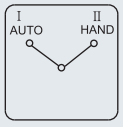
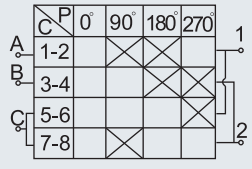
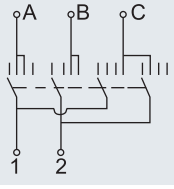
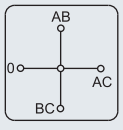
Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
a				a.Functional wiring is the same as double buttons with auto-reset function.
b				B.Functional wiring is the same as double buttons; auto-reset after start; lock-stop gear added to avoid mistake operation.
c				c.Button with 2 NO contacts and available at auto-reset function. Suitable for high-voltage engine control circuit or function panel uses switch code “a”.
d				d.Low-power switch.
e				e.Function is the same as three buttons; able to control engine in forward and backward rotation. FW&BW starting positions can auto-reset.
f				f.Selection switch with stop gear.
g				g.Be equal to mounting two buttons and one changeover switch in one axis. Possible to output contact signal or monitoring signal between start and stop.
h				h.Multi-signals transmit gradually.

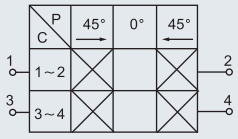
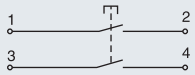
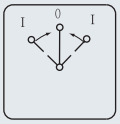
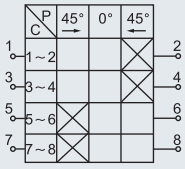
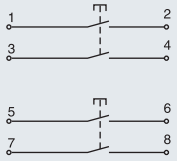
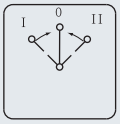
Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
i				l. Add function of transmitting resultant signal on the base of function panel uses switch code “h”.
j				j. Two positions step; change-over gradually.
k				k. Changeover switch.
i				l. Selection switch with three poles and two launches.
m				m.Three-position changeover switch among auto, manual and start; auto-reset after start; it can convert to auto gear only after passing stop gear.
n				n.Structure is a little different to universal structure of switch code “m”; it directly rotates to auto gear without passing stop gear after starts.

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
o				O. Double contacts auto reset for start, with lock-stop gear; lock switch at stop gear to prevent mistake operation.
p				p.Double contacts for stop, to substitute switch code “a” and “c” for start and stop; auto-reset.
q				q.Stop with double contacts, with lock stop gear; auto-reset after start; possible to add lock-stop gear to lock switch at stop to prevent mistake operation.
r				r.Double contacts for both start and stop; it is same as universal panel of switch code “a”, with auto-reset for start and stop.
s				s.Transmit a contact signal before start and stop.
t				t.With lock-stop gear for start and stop to prevent mistake operation; without auto-reset.
u				u.Double-control selection switch.
v				v.Changeover switch for voltage phase-changing and measuring.

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
W				w.One 2NO auto-reset pushbutton, both left and right are the same.
X				x.Two 2NO auto-reset buttons.

Technical data

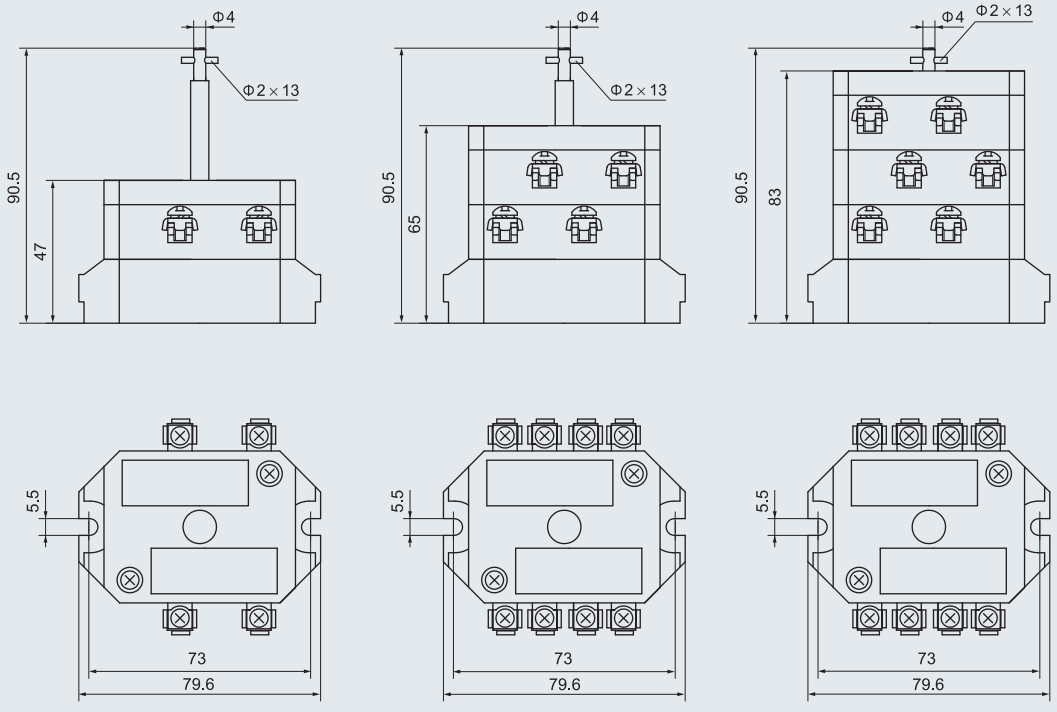
Control switches BK8050

Explosion protection	Ⓔx II 2 G Ex d e IIC Gb
Certificates	LCIE 09 ATEX 3096U; IECEx CQM 11.0011U; KZ.7500525.22.01.00374 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Enclosure material	Plastic
Rated voltage	Max. 415V AC
Rated current	16A
Switch angle	n x 45°/n x 90°
Service life	10^5 times
Ambient temperature	-20℃~+70℃
Cable connection	2.5mm^2
Material of rotary actuator	Polycarbonate (PC)
Panel material	Acrylonitrile-butadiene-styrene (ABS)
Seal material	Nitrile butadiene rubber (NBR)

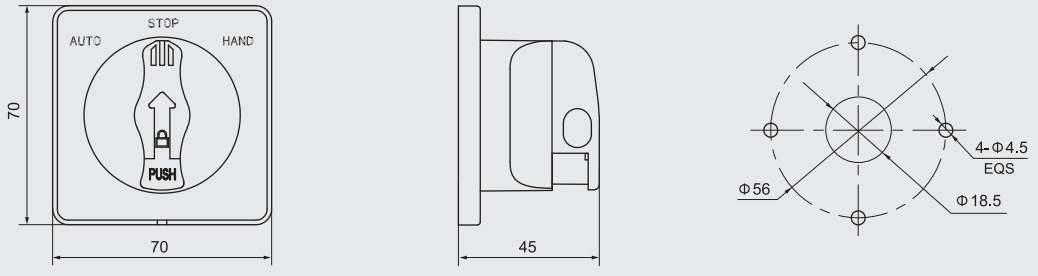
Accessories

Description	Illustration	Ordering code	Weight (kg)
Rotary actuator (padlockable)		40119	0.05

Dimension drawings (all dimensions in mm) - subject to alteration



Control switch 2 poles | Control switch 3 or 4 poles | Control switch 6 poles



Rotary actuator | Mounting hole

Components for BZC8050 Control Stations
BB8050 Series Explosion-proof Ammeters/Voltmeters

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Fast comparison of measured with set values
- Versions available
  - -Ammeter (type 72)
  - -Voltmeter (type 72)



Catalogue number logic

BB8050(B for short)

B - A (□/□)

- Ammeter range
- Ammeter
- Explosion-proof ammeters/voltmeters

B - V (□)

- Voltmeter range
- Voltmeter
- Explosion-proof ammeters/voltmeters

Zones 1&2; 21&22

Components for BZC8050 Control Stations
BB8050 Series Explosion-proof Ammeters/Voltmeters

Selection table

Version	Description	Overload scale	Measuring range	Ordering code	Weight (kg)
Ammeter BB8050-A(□/□) 	Direct measuring	2 times	0~20/40 mA	40121	0.20
			4~20/40 mA	40122	
	Direct measuring	2 times	0~1 A	40123	
			0~5 A	40124	
	For CT (current transformer)	2 times or 6 times	sek. 1 A	40125	
			sek. 5 A	40126	

Selection table

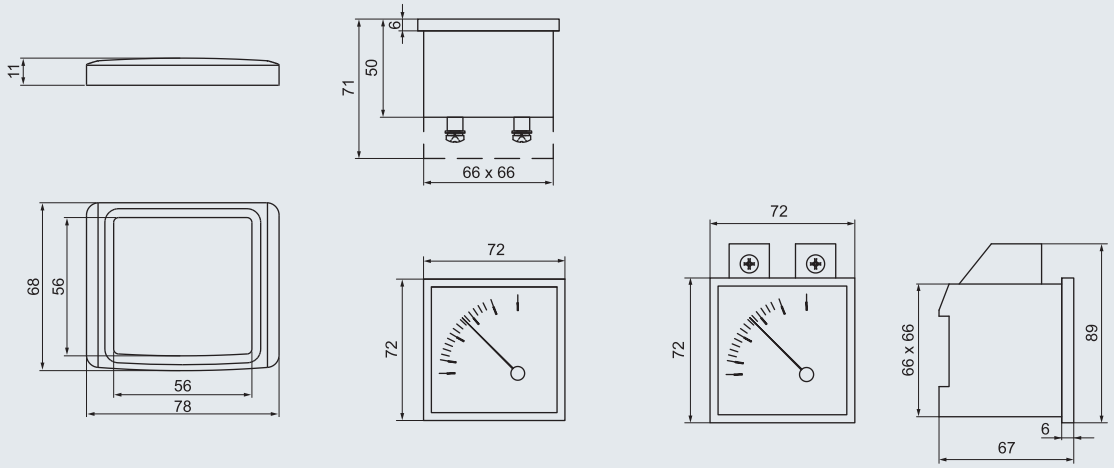
Version	Description	Measuring range	Ordering code	Weight (kg)
Voltmeter BB8050-V(□) 	Direct measuring	0~10 V	40127	0.20
		0~25 V	40128	
		0~40 V	40129	
		0~60 V	40130	
		0~100 V	40131	
		0~150 V	40132	
		0~250 V	40133	
		0~300 V	40134	
		0~450 V	40135	
		0~500 V	40136	
		0~600 V	40137	
	For PT (potential transformer)	sek. 100 V	40138	
		sek. 110 V	40139	
		sek. 120 V	40140	

Technical data

Explosion-proof ammeters/voltmeters BB8050

	Ammeter	Voltmeter
Explosion protection	Ⓔx II 2 G Ex e IIC Gb	Ⓔx II 2 G Ex e IIC Gb
Certificates	DNV 11 ATEX 92527U; IECEx CQM 11.0031U	DNV 11 ATEX 92527U; IECEx CQM 11.0031U
Conformity to standards	EN 60079-0, EN 60079-7	EN 60079-0, EN 60079-7
	IEC 60079-0, IEC 60079-7	IEC 60079-0, IEC 60079-7
Enclosure material	Flame retardant plastic	Flame retardant plastic
Insulation voltage	690V AC	690V AC
Frequency	50/60Hz	50/60Hz
	DC available	DC available
Working mode	Electromagnetic type (moving iron)	Electromagnetic type (moving iron)
Accuracy	Class 1.5	Class 1.5
Overload times	6 times	
Ambient temperature	-20℃~+80℃	-20℃~+80℃
Cable connection	2.5mm²	2.5mm²
Size	72x72mm	72x72mm

Dimension drawings (all dimensions in mm) - subject to alteration



Bezel (□72mm) Cover mounting Rail mounting



Loads and Motor Switchgears

Contents

Motor Switches

BLK Series Explosion-proof Motor Switches (Ex d IIB) 5/2

BLK Series Explosion-proof Motor Switches (Ex d IIC) 5/6

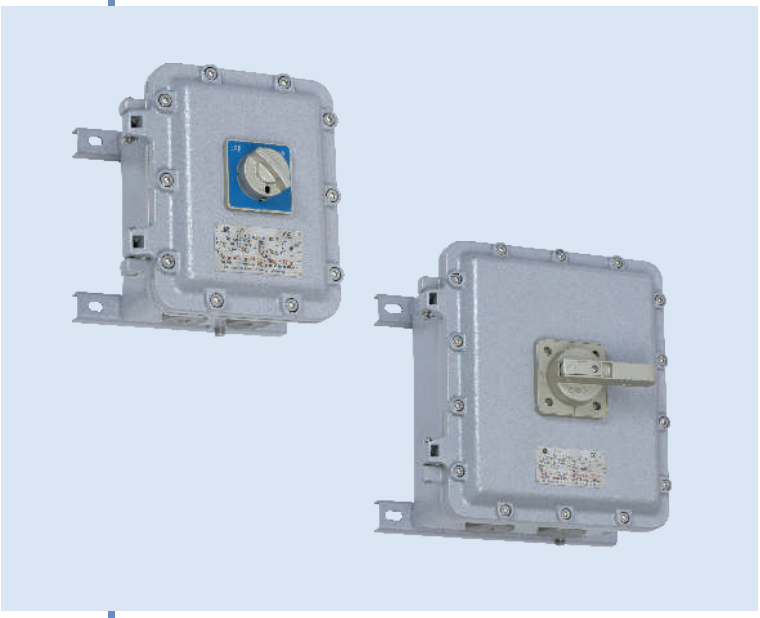
Standard Motor Starters

BQD Series Explosion-proof Motor Starters (Ex d IIB) 5/12

BQD Series Explosion-proof Motor Starters (Ex d e IIC) 5/16

More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

Motor Switches
BLK Series Explosion-proof Motor Switches (Ex d IIB)



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups C, D
- Classified as IIB according to gas atmosphere.
- Copper-free aluminium enclosure, powder-coated surface.
- Built-in MCB (miniature circuit breaker), MCCB (moulded case circuit breaker).
- Earth leakage protection device is optional.

Catalogue number logic

BLK - □ / □ / □ / □

- L: earth leakage protection (optional)
- Rated current (A)
- Number of pole (1P, 2P, 3P, 4P)
- Enclosure type (63, 160, 250)
- Explosion-proof motor switches

Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size and direction on request.

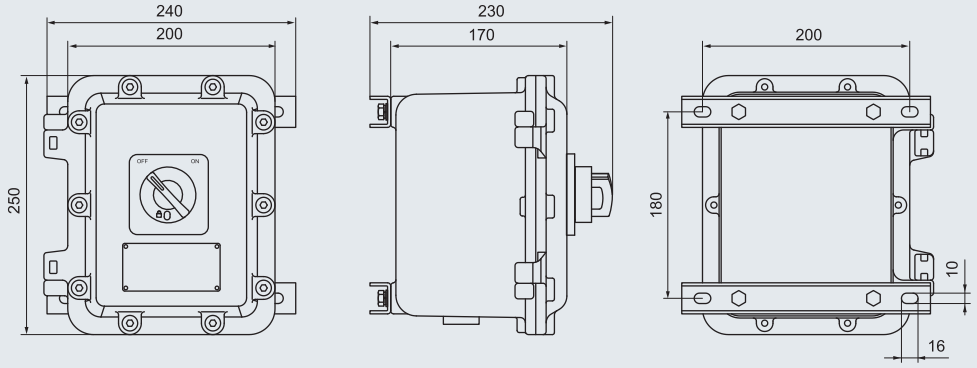
Zones 1&2; 21&22

Technical data

Explosion-proof motor switches BLK-63/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 06 ATEX 6091; IECEx LCI 08.0009; KZ.7500525.22.01.00362 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Circuit breaker	MCB (miniature circuit breaker)
Max. working voltage	440V AC 50/60Hz
Rated voltage	1P/230V AC, 2P/3P/4P/400V AC 50/60Hz
Rated current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Number of pole	1P, 2P, 3P, 4P
Breaking capacity	6kA, 10kA, 15kA
Tripping characteristic	Instantaneous tripping range (5~10) In, (7~10) In or (10~14) In
Impulse withstand voltage	6kV
Degree of protection	IP66
Internal&external earthing	M6/M6
Ambient temperature	-60℃~+60℃
Cable entries	Standard 1~16A: 2 x M25 x 1.5 plugs 20~32A: 2 x M32 x 1.5 plugs 40~63A: 2 x M40 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Enclosure weight	8.00 kg
Earth leakage protection	On request

Dimension drawings (all dimensions in mm) - subject to alteration



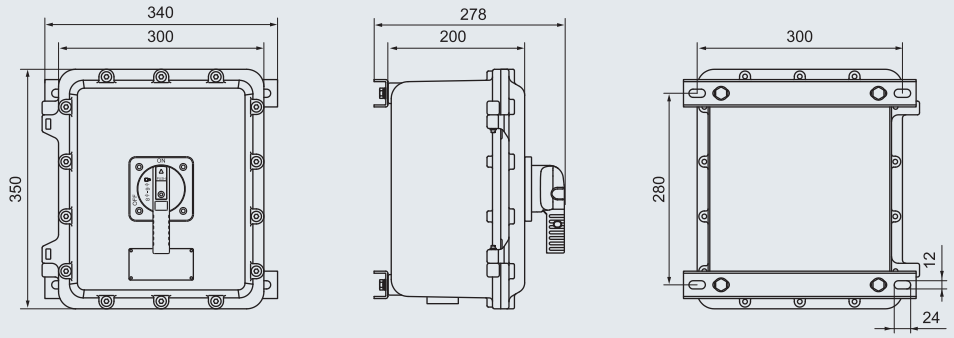
BLK-63/□/□/□

Technical data

Explosion-proof motor switches BLK-160/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 06 ATEX 6091; IECEx LCI 08.0009; KZ.7500525.22.01.00362 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Circuit breaker	MCCB (moulded case circuit breaker)
Max. working voltage	690V AC 50/60Hz 500V DC
Rated current	Max.160A
Number of pole	3P, 4P
Breaking capacity	380/415V AC 50/60Hz, 36kA/50kA 440V AC 50/60Hz, 30kA/45kA
Impulse withstand voltage	8kV
Tripping characteristic	Thermomagnetic type
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60℃~+60℃
Cable entries	Standard 80~100A: 2 x M50 x 1.5 plugs 125~160A: 2 x M63 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Enclosure weight	18.90kg
Earth leakage protection	On request

Dimension drawings (all dimensions in mm) - subject to alteration



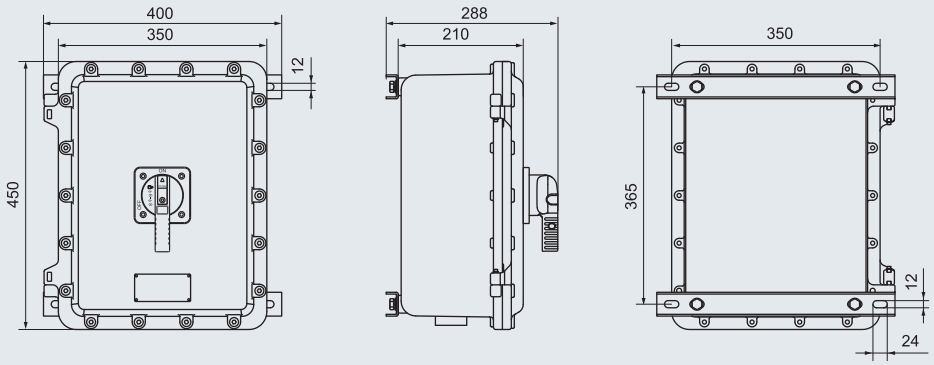
BLK-160/□/□/□

Technical data

Explosion-proof motor switches BLK-250/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 06 ATEX 6091; IECEx LCI 08.0009; KZ.7500525.22.01.00362 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Circuit breaker	MCCB (moulded case circuit breaker)
Max. working voltage	690V AC 50/60Hz 500V DC
Rated current	Max.250A
Number of pole	3P, 4P
Breaking capacity	380/415V AC 50/60Hz, 36kA/50kA 440V AC 50/60Hz, 25kA/40kA
Impulse withstand voltage	8kV
Tripping characteristic	Thermomagnetic type
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60℃~+60℃
Cable entries	Standard 2 x M63 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Enclosure weight	28.50kg
Earth leakage protection	On request
Note	Rated current > 250A on request.

Dimension drawings (all dimensions in mm) - subject to alteration



BLK-250/□/□/□

Motor Switches
BLK Series Explosion-proof Motor Switches (Ex d IIC)



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups A , B, C, D
- Classified as IIC according to gas atmosphere.
- Copper-free aluminium enclosure, powder coated surface.
- Built-in MCB (miniature circuit breaker), MCCB (moulded case circuit breaker).
- Earth leakage protection device is optional.

Catalogue number logic

BLK - □ / □ / □ / □

- B: Ammeter(optional)
- Rated current (A)
- Function code
  - MB□: Distribution switch
    - 1: Number of switch 1
    - 4: Number of switch 4
    - 6: Number of switch 6
  - MS: Motor start
- Enclosure type (63, 160, 250)
- Explosion-proof motor switches

Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size and direction on request.

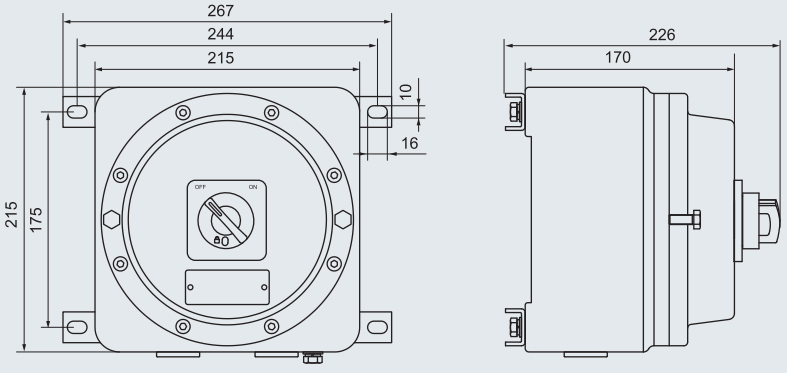
Zones 1&2; 21&22

Technical data

Explosion-proof motor switches BLK-63/MB□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	Presafe 17 ATEX 10687X; IECEx CQM 12.0037X
	KZ.7500525.22.01.00362 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Circuit breaker	MCB (miniature circuit breaker)
Max. working voltage	Max.690V AC 50/60Hz; 500V DC
Rated voltage	1P/230V AC, 2P/3P/4P/400V AC 50/60Hz
Rated current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Number of pole	1P, 2P, 3P, 4P
Breaking capacity	6kA, 10kA, 15kA
Impulse withstand voltage	6kV
Tripping characteristic	Instantaneous tripping range (5~10) In, (7~10) In or (10~14) In
Degree of protection	IP66
Internal&external earthing	M5/M8
Ambient temperature	-60℃~+55℃
Cable entries	Standard 1~16A: 2 x M25 x 1.5 plugs
	20~32A: 2 x M32 x 1.5 plugs
	40~63A: 2 x M40 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Enclosure weight	6.50 kg
Earth leakage protection	On request

Dimension drawings (all dimensions in mm) - subject to alteration



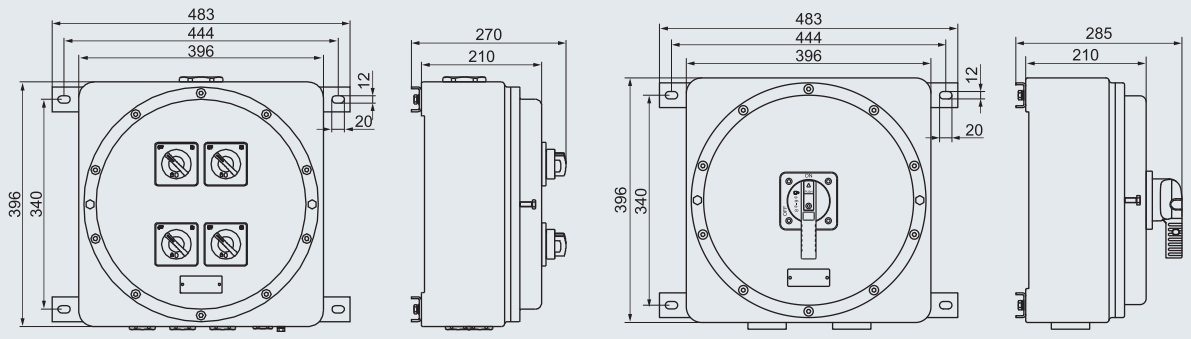
BLK-63/MB□/□

Technical data

Explosion-proof motor switches BLK-160/MB□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	Presafe 17 ATEX 10687X; IECEx CQM 12.0037X
	KZ.7500525.22.01.00362 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Circuit breaker	MCB (miniature circuit breaker); MCCB (moulded case circuit breaker)
Max. working voltage	MCB: 440V AC 50/60Hz;
	MCCB: 690V AC 50/60Hz; 500V DC
Rated voltage	MCB: 1P/230V AC, 2P/3P/4P/400V AC 50/60Hz
Rated current	MCB: max.50A(1, 2, 4, 6, 10, 16, 20, 25, 32, 40, 50)
	MCCB: 80A, 100A, 125A, 160A
Number of pole	MCB: 1P, 2P, 3P, 4P
	MCCB: 3P, 4P
Breaking capacity	MCB: 6kA, 10kA, 15kA
	MCCB: 380/415V AC 50/60Hz, 36kA/50kA; 440V AC 50/60Hz, 30kA/45kA
Impulse withstand voltage	MCB: 6kV; MCCB: 8kV
Tripping characteristic	Thermomagnetic type
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60℃~+55℃
Cable entries	Standard 4 x 1~16A: 1 x M40 x 1.5 + 4 x M25 x 1.5 plugs 4 x 20~32A: 1 x M50 x 1.5 + 4 x M32 x 1.5 plugs 4 x 40~63A: 1 x M63 x 1.5 + 4 x M40 x 1.5 plugs 1 x 80~100A: 2 x M50 x 1.5 plugs 1 x 125~160A: 2 x M63 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Enclosure weight	28.00kg
Earth leakage protection	On request

Dimension drawings (all dimensions in mm) - subject to alteration



BLK-160/MB□/□

Technical data

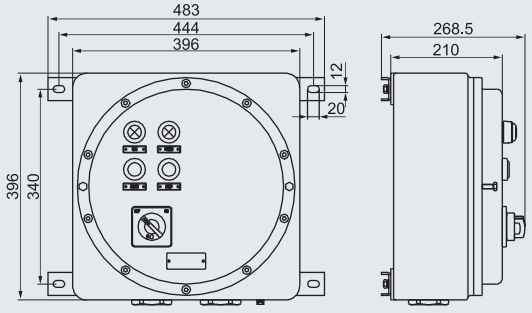
Explosion-proof motor switches BLK-160/MS/□

Explosion protection	Ⓔx II 2 G Ex db IIC T6 Gb
	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	Presafe 17 ATEX 10687X; IECEx CQM 12.0037X
	KZ.7500525.22.01.00362 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Components	MCB (miniature circuit breaker)
	AC contactor
	Thermal overload relay
	Indicator, pushbutton
Rated voltage	Max.440V AC 50/60Hz
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60℃~+55℃
Cable entries	Standard M□ x 1.5 plug; See Selection table as below
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom

Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BLK-160/MS/16	4	16	7~10, Ie=8.5	9	2 x M25 x 1.5	28.00
BLK-160/MS/20	5.5	20	9~13, Ie=11	12	2 x M25 x 1.5	28.00
BLK-160/MS/25	7.5	25	12~18, Ie=16	18	2 x M32 x 1.5	28.00
BLK-160/MS/32	11	32	16~24, Ie=23	25	2 x M32 x 1.5	28.00
BLK-160/MS/40	15	40	23~32, Ie=30	32	2 x M32 x 1.5	28.00
BLK-160/MS/50	18.5	50	30~38, Ie=36	40	2 x M40 x 1.5	28.00
BLK-160/MS/63	22	63	37~50, Ie=46	50	2 x M40 x 1.5	28.00

Dimension drawings (all dimensions in mm) - subject to alteration



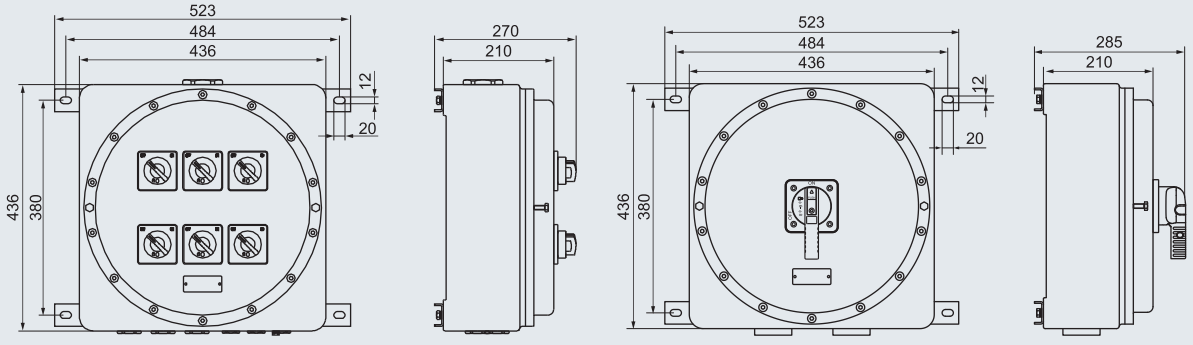
BLK-160/MS/□

Technical data

Explosion-proof motor switches BLK-250/MB□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	Presafe 17 ATEX 10687X; IECEx CQM 12.0037X
	KZ.7500525.22.01.00362 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Circuit breaker	MCB (miniature circuit breaker); MCCB (moulded case circuit breaker)
Max. working voltage	MCB: 440V AC 50/60Hz;
	MCCB: 690V AC 50/60Hz; 500V DC
Rated voltage	MCB: 1P/230V AC, 2P/3P/4P/400V AC 50/60Hz
Rated current	MCB: max.50A(1, 2, 4, 6, 10, 16, 20, 25, 32, 40, 50)
	MCCB: 200A, 250A
Number of pole	MCB: 1P, 2P, 3P, 4P
	MCCB: 3P, 4P
Breaking capacity	MCB: 6kA, 10kA, 15kA
	MCCB: 380/415V AC 50/60Hz, 36kA/50kA; 440V AC 50/60Hz, 30kA/45kA
Impulse withstand voltage	MCB: 6kV; MCCB: 8kV
Tripping characteristic	Thermomagnetic type
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60℃~+55℃
Cable entries	Standard 6 x 1~16A: 1 x M40 x 1.5 + 6 x M25 x 1.5 plugs
	6 x 20~32A: 1 x M50 x 1.5 + 6 x M32 x 1.5 plugs
	6 x 40~63A: 1 x M63 x 1.5 + 6 x M40 x 1.5 plugs
	1 x 200~250A: 2 x M63 x 1.5 plugs
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Enclosure weight	31.00kg
Earth leakage protection	On request

Dimension drawings (all dimensions in mm) - subject to alteration



BLK-250/MB□/□

Technical data

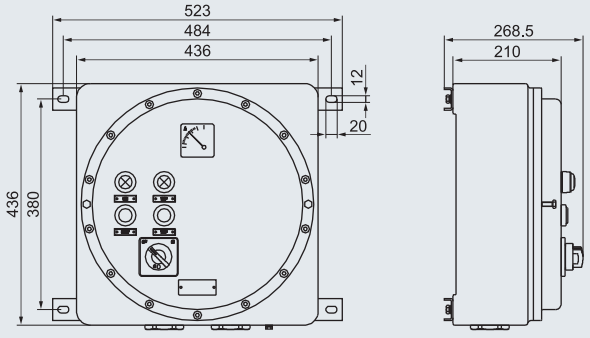
Explosion-proof motor switches BLK-250/MS/□/B

Explosion protection	Ⓔx II 2 G Ex db IIC T6 Gb
	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	Presafe 17 ATEX 10687X; IECEx CQM 12.0037X
	KZ.7500525.22.01.00362 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Components	MCB (miniature circuit breaker)
	AC contactor
	Thermal overload relay
	Indicator, pushbutton Ammeter
Rated voltage	Max.440V AC 50/60Hz
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-60℃~+55℃
Cable entries	Standard M□ x 1.5 plug; See Selection table as below
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom

Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BLK-250/MS/16/B	4	16	7~10, Ie=8.5	9	2 x M25 x 1.5	31.00
BLK-250/MS/20/B	5.5	20	9~13, Ie=11	12	2 x M25 x 1.5	31.00
BLK-250/MS/25/B	7.5	25	12~18, Ie=16	18	2 x M32 x 1.5	31.00
BLK-250/MS/32/B	11	32	16~24, Ie=23	25	2 x M32 x 1.5	31.00
BLK-250/MS/40/B	15	40	23~32, Ie=30	32	2 x M32 x 1.5	31.00
BLK-250/MS/50/B	18.5	50	30~38, Ie=36	40	2 x M40 x 1.5	31.00
BLK-250/MS/63/B	22	63	37~50, Ie=46	50	2 x M40 x 1.5	31.00

Dimension drawings (all dimensions in mm) - subject to alteration



BLK-250/MS/□/B

Standard Motor Starters
BQD Series Explosion-proof Motor Starters (Ex d IIB)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups C, D
- Classified as IIB according to gas atmosphere.
- Different motor starters.
- Copper-free aluminium enclosure, powder coated surface.

Catalogue number logic

BQD - □ / □ / □ / □

- S: direct-on-line control (optional)
- N: reversible control
- Y: star-delta control

Setting current of thermal relay (A)

Rated current of circuit breaker (A)

Control motor power (kW)

Explosion-proof motor starters

Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size, entry direction, enclosure material, etc. on request.

Zones 1&2; 21&22

Technical data

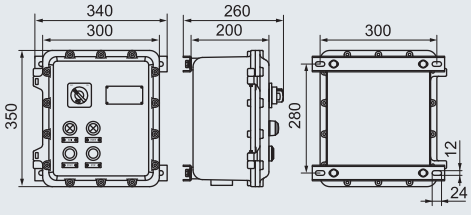
Explosion-proof motor starters (direct-on-line control) BQD-□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIB T6/T5 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃/T95℃ Db IP66
Certificates	LCIE 06 ATEX 6090; IECEx LCI 08.0010
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Components	MCB (miniature circuit breaker) AC contactor Thermal overload relay Indicator, pushbutton
Rated voltage	380/400V AC 50/60Hz
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	T6/T80℃ for Tamb: -60℃~+50℃; T5/T95℃ for Tamb: -60℃~+60℃
Cable entries	Standard M□ x 1.5 plug; See Selection table as below
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom

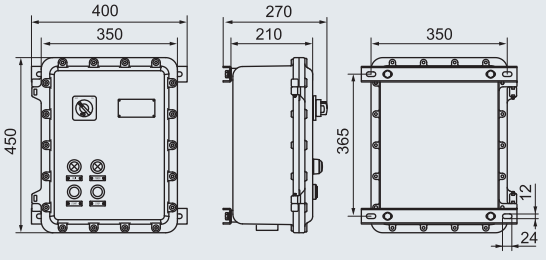
Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BQD-4/16/7~10	4	16	7~10, Ie=8.5	9	2 x M25 x 1.5	20.00
BQD-5.5/20/9~13	5.5	20	9~13, Ie=11	12	2 x M25x 1.5	20.00
BQD-7.5/25/12~18	7.5	25	12~18, Ie=16	18	2 x M32 x 1.5	20.00
BQD-11/32/16~24	11	32	16~24, Ie=23	25	2 x M32 x 1.5	30.00
BQD-15/40/23~32	15	40	23~32, Ie=30	32	2 x M32 x 1.5	30.00
BQD-18.5/50/30~38	18.5	50	30~38, Ie=36	40	2 x M40 x 1.5	30.00
BQD-22/63/37~50	22	63	37~50, Ie=46	50	2 x M40 x 1.5	30.00

Dimension drawings (all dimensions in mm) - subject to alteration



4kW-7.5kW



11kW-22kW

Standard Motor Starters
BQD Series Explosion-proof Motor Starters (Ex d IIB)

Technical data

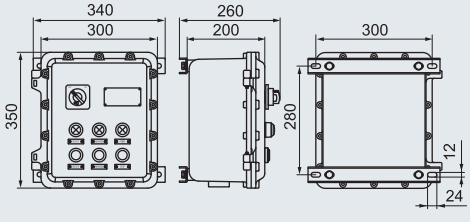
Explosion-proof motor starters (reversible control) BQD-□/□/□/ N

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIB T6/T5 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃/T95℃ Db IP66
Certificates	LCIE 06 ATEX 6090; IECEx LCI 08.0010
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Components	MCB (miniature circuit breaker)
	AC contactor
	Thermal overload relay
	Indicator, pushbutton
Rated voltage	380/400V AC 50/60Hz
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	T6/T80℃ for Tamb: -60℃~+50℃; T5/T95℃ for Tamb: -60℃~+60℃
Cable entries	Standard M□ x 1.5 plug; See Selection table as below
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom

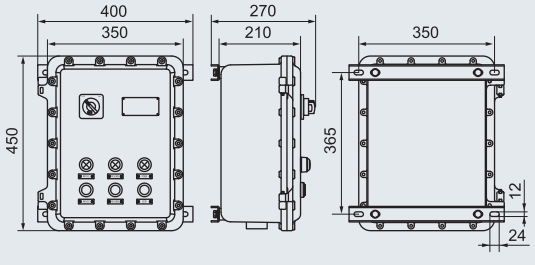
Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BQD-4/16/7~10/N	4	16	7~10, Ie=8.5	9	2 x M25 x 1.5	20.50
BQD-5.5/20/9~13/N	5.5	20	9~13, Ie=11	12	2 x M25 x 1.5	20.50
BQD-7.5/25/12~18/N	7.5	25	12~18, Ie=16	18	2 x M32 x 1.5	20.50
BQD-11/32/16~24/N	11	32	16~24, Ie=23	25	2 x M32 x 1.5	30.50
BQD-15/40/23~32/N	15	40	23~32, Ie=30	32	2 x M32 x 1.5	30.50
BQD-18.5/50/30~38/N	18.5	50	30~38, Ie=36	40	2 x M40 x 1.5	30.50
BQD-22/63/37~50/N	22	63	37~50, Ie=46	50	2 x M40 x 1.5	30.50

Dimension drawings (all dimensions in mm) - subject to alteration



4kW-7.5kW



11kW-22kW

Technical data

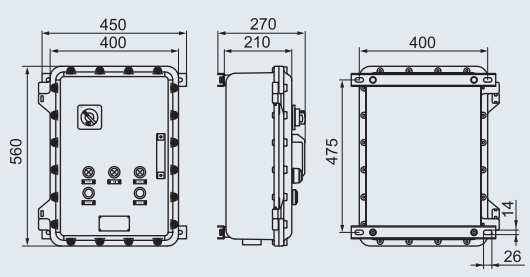
Explosion-proof motor starters (star-delta control) BQD-□/□/□/ Y

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIB T6/T5 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃/T95℃ Db IP66
Certificates	LCIE 06 ATEX 6090; IECEx LCI 08.0010
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Components	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)
	AC contactor
	Thermal overload relay
	Indicator, pushbutton
Rated voltage	380/400V AC 50/60Hz
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	T6/T80℃ for Tamb: -60℃~+50℃; T5/T95℃ for Tamb: -60℃~+60℃
Cable entries	Standard M□ x 1.5 plug; See Selection table as below
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom

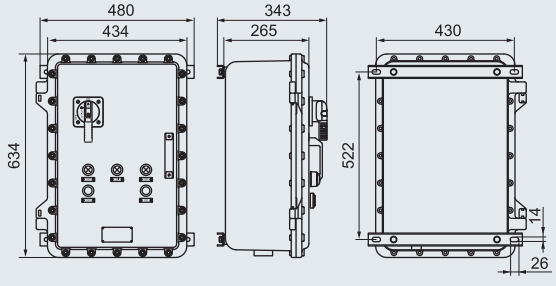
Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Setting value of delay time	Cable entry size	Enclosure weight (kg)
BQD-18.5/50/17~25/Y	18.5	32	17~25, Ie=23.5	13s	3 x M40 x 1.5	40.00
BQD-22/63/23~32/Y	22	40	23~32, Ie=28	15s	3 x M40 x 1.5	40.00
BQD-30/80/30~40/Y	30	50	30~40, Ie=38	17s	3 x M50 x 1.5	54.50
BQD-37/100/37~50/Y	37	63	37~50, Ie=47	18s	3 x M50 x 1.5	54.50
BQD-45/125/48~65Y	45	80	48~65, Ie=57	20s	3 x M63 x 1.5	54.50

Dimension drawings (all dimensions in mm) - subject to alteration



18.5kW-37kW



45kW

Standard Motor Starters
BQD Series Explosion-proof Motor Starters (Ex d e IIC)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Classified as IIC according to gas atmosphere.
- Different motor starters.
- Copper-free aluminium enclosure, powder coated surface.

Catalogue number logic

BQD - □ / □ / □ / □

- S: direct-on-line control (optional)
- N: reversible control
- Y: star-delta control

Setting current of thermal relay (A)

Rated current of circuit breaker (A)

Control motor power (kW)

Explosion-proof motor starters

Note

1. Please select the model by Catalogue number logic above, and specify all technical data;
2. Please specify Ex-mark when ordering;
3. Entry size, entry direction, enclosure material, etc. on request.

Zones 1&2

Technical data

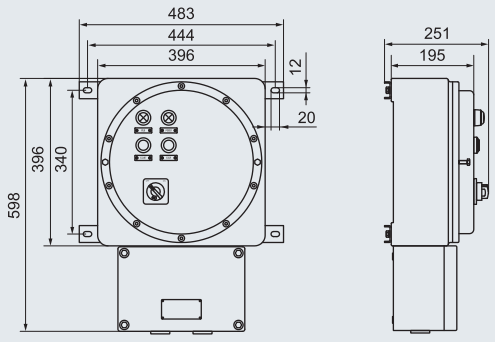
Explosion-proof motor starters (direct-on-line control) BQD-□/□/□

Explosion protection	Ⓔx II 2 G Ex d e IIC T6 Ex d e IIC T6 Gb
Certificates	LCIE 10 ATEX 3075; IECEx CQM 11.0017X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7
	IEC 60079-0, IEC 60079-1, IEC 60079-7
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Components	MCB (miniature circuit breaker)
	AC contactor
	Thermal overload relay
	Indicator, pushbutton
Rated voltage	380/400V AC 50/60Hz
Degree of protection	IP65
Internal&external earthing	M6/M6
Ambient temperature	-20℃~+55℃
Cable entries	Standard M□ x 1.5 plug; See Selection table as below
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~19
Entry direction	Bottom

Selection table

Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BQD-4/16/7~10	4	16	7~10, Ie=8.5	9	2 x M25 x 1.5	33.00
BQD-5.5/20/9~13	5.5	20	9~13, Ie=11	12	2 x M25 x 1.5	33.00
BQD-7.5/25/12~18	7.5	25	12~18, Ie=16	18	2 x M32 x 1.5	33.00
BQD-11/32/16~24	11	32	16~24, Ie=23	25	2 x M32 x 1.5	33.00
BQD-15/40/23~32	15	40	23~32, Ie=30	32	2 x M32 x 1.5	33.00
BQD-18.5/50/30~38	18.5	50	30~38, Ie=36	40	2 x M40 x 1.5	33.00
BQD-22/63/37~50	22	63	37~50, Ie=46	50	2 x M40 x 1.5	33.00

Dimension drawings (all dimensions in mm) - subject to alteration



4kW-22kW

Technical data

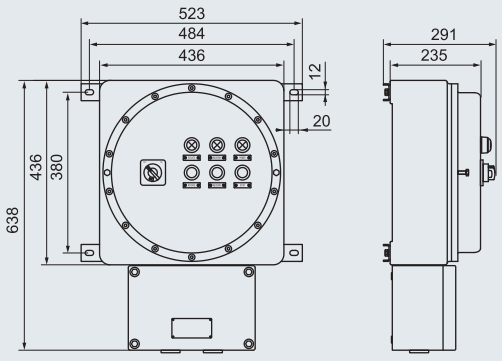
Explosion-proof motor starters (reversible control) BQD-□/□/□/N

Explosion protection	Ⓔx II 2 G Ex d e IIC T6 Ex d e IIC T6 Gb
Certificates	LCIE 10 ATEX 3075; IECEx CQM 11.0017X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7
	IEC 60079-0, IEC 60079-1, IEC 60079-7
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Exposed fastener	Stainless steel
Components	MCB (miniature circuit breaker)
	AC contactor
	Thermal overload relay
	Indicator, pushbutton
Rated voltage	380/400V AC 50/60Hz
Degree of protection	IP65
Internal&external earthing	M6/M6
Ambient temperature	-20℃~+55℃
Cable entries	Standard M□ x 1.5 plug; See Selection table as below
Cable gland(optional)	DQM-I (Ex e) is recommended. Please see P7/17~19
Entry direction	Bottom

Selection table

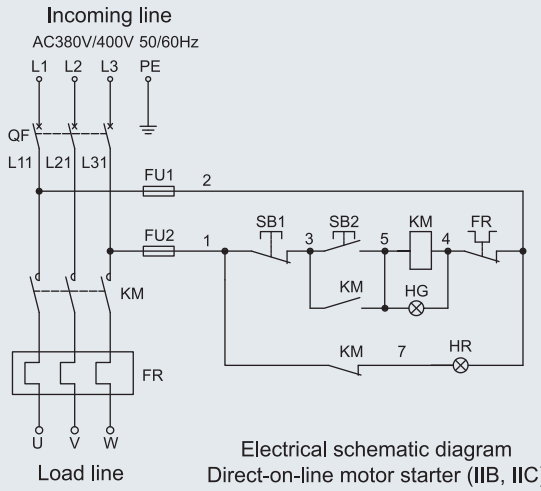
Version	Control motor power (kW)	Rated current of circuit breaker (A)	Adjustable range of setting current of thermal relay (A)	Rated current of contactor (A)	Cable entry size	Enclosure weight (kg)
BQD-4/16/7~10/N	4	16	7~10, Ie=8.5	9	2 x M25 x 1.5	35.00
BQD-5.5/20/9~13/N	5.5	20	9~13, Ie=11	12	2 x M25 x 1.5	35.00
BQD-7.5/25/12~18/N	7.5	25	12~18, Ie=16	18	2 x M32 x 1.5	35.00
BQD-11/32/16~24/N	11	32	16~24, Ie=23	25	2 x M32 x 1.5	35.00
BQD-15/40/23~32/N	15	40	23~32, Ie=30	32	2 x M32 x 1.5	35.00
BQD-18.5/50/30~38/N	18.5	50	30~38, Ie=36	40	2 x M40 x 1.5	35.00
BQD-22/63/37~50/N	22	63	37~50, Ie=46	50	2 x M40 x 1.5	35.00

Dimension drawings (all dimensions in mm) - subject to alteration



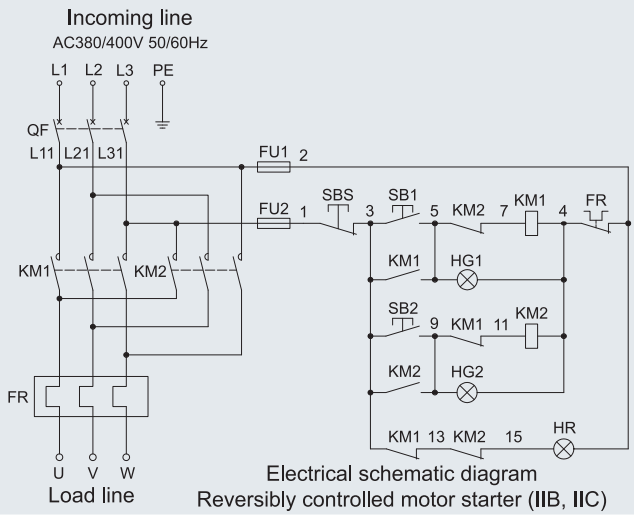
4kW-22kW

Electrical schematic diagram



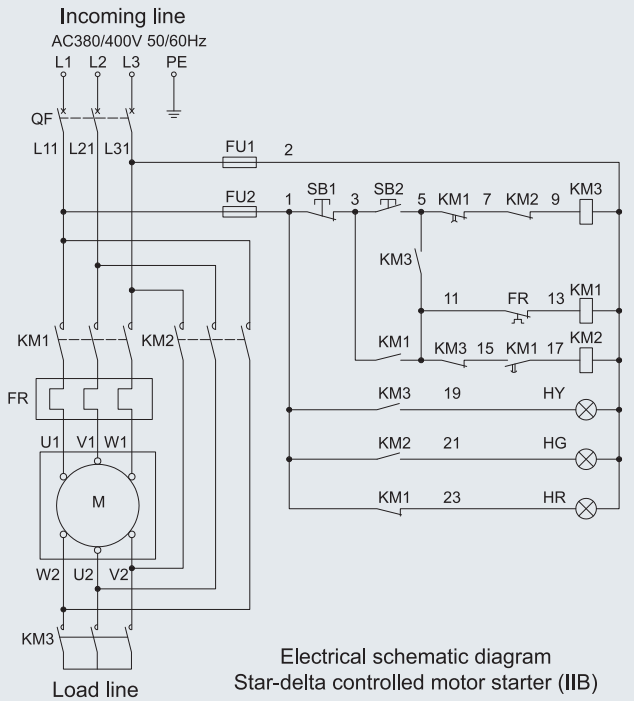
Electrical schematic diagram
Direct-on-line motor starter (IIB, IIC)

Code of electric components
QF: circuit breaker
KM: AC contactor
FR: thermal relay
FU1, FU2: fuse
SB1: stop button
SB2: start button
HR: stop indicator
HG: running indicator



Electrical schematic diagram
Reversibly controlled motor starter (IIB, IIC)

Code of electric components
QF: circuit breaker
KM1, KM2: AC contactor
FR: thermal relay
FU1, FU2: fuse
SBS: stop button
SB1: non-reversible start button
SB2: reversible start button
HR: stop indicator
HG1: non-reversible running indicator
HG2: reversible running indicator



Electrical schematic diagram
Star-delta controlled motor starter (IIB)

Code of electric components
QF: circuit breaker
KM1: main contactor
KM3: star start contactor
KM2: delta running contactor
FR: thermal relay
FU1, FU2: fuse
SB1: stop button
SB2: start button
HR: stop indicator
HY: star start indicator
HG: delta running indicator



Distribution Boxes and Empty Enclosures

Contents

Distribution Boxes

BXM(D)51 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d e IIB)	6/2
BXM(D)53 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d e IIC)	6/8
BXM(D)81 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d IIB+H_2)	6/14
HRMD91 Series Explosion-proof Distribution Equipments (Ex d IIB+H_2)	6/22
HRMD92 Series Explosion-proof Distribution Equipments (Ex d IIB+H_2)	6/28
BXM(D)8050 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d e IIC)	6/34

Components for Distribution Boxes

BL8060 Series Explosion-proof Circuit Breaker Module	6/42
BRT8060 Series Explosion-proof Fuses	6/47
BDB8060 Series Explosion-proof Motor Protection Switches	6/48

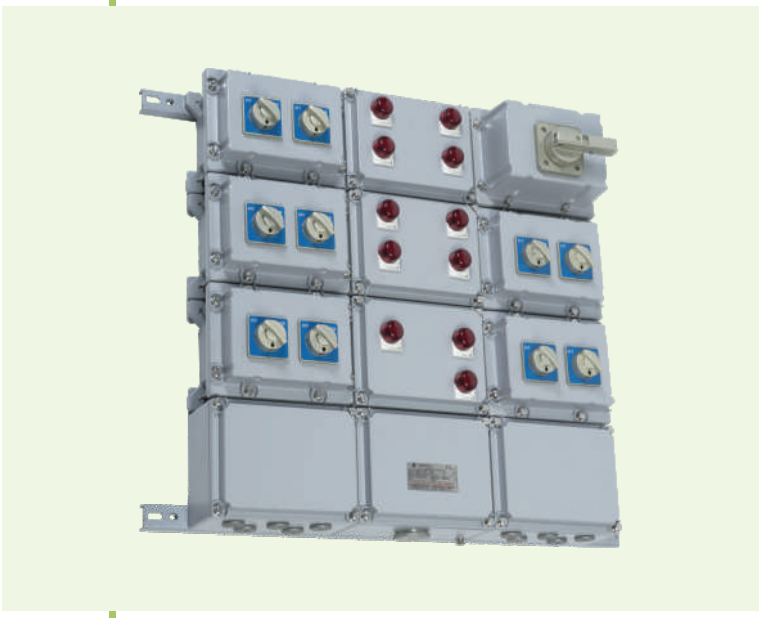
Empty Enclosures

BXT-□-W Series Explosion-proof Enclosures (Ex d IIB+H_2, Copper-free Aluminium)	6/50
BXT-e Series Increased Safety Enclosures (Ex e, Copper-free Aluminium)	6/54
BXT-S Series Increased Safety Enclosures (Ex e, Stainless Steel)	6/56
BXT8050 Series Explosion-proof Enclosures (Ex e, GRP)	6/58

More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

Distribution Boxes

BXM(D)51 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d e IIB)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups C, D
- Enclosure for modular combination (Ex d & Ex e).
- Main switch and branch switch are operated with external rotary actuator.
- Internal wiring to the terminal is finished.
- International brand of explosion-proof terminal.
- Copper-free aluminium, powder coated surface.
- Entries plugged. Cable glands on request (see P7/17~19).
- Special requirements on request.

Catalogue number logic

BX M(D) 51- □/□/□/□

- Main switch current
- K: with main switch (optional)
- Branch current
- Number of branch circuit
- Design No.
- M: illumination D: power
- Explosion-proof distribution boxes

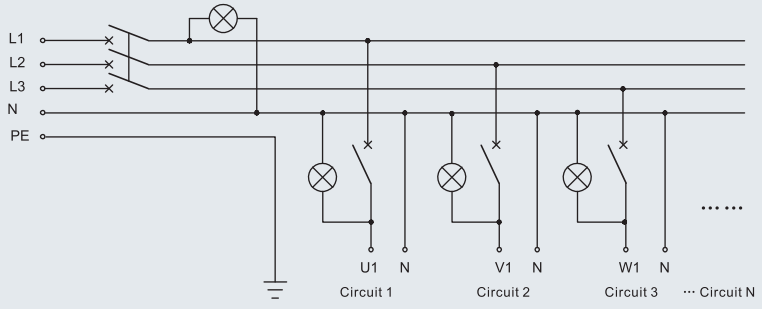
Zones 1&2; 21&22

Technical data

Explosion-proof illumination distribution boxes BXM51-□/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIB T6
Dust explosion protection	Ex tD A21 IP65 T80℃
Certificates	
For gas explosion protection	PTB 03 ATEX 1078; IECEx CQM 07.0012
For dust explosion protection	PCEC (China)
Conformity to standards	EN 50014, EN 50018, EN 50019 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 61241-0, IEC 61241-1
General power supply	Rated voltage: max. 415V AC 50/60Hz; Rated current: max.100A
Branch current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A
Exposed fastener	Stainless steel
Enclosure	
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Enclosure type	Modular combination (Ex d & Ex e); MCB, MCCB or other components in Ex d compartment, explosion-proof indicators and terminals in Ex e compartment.
Built-in components	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Terminal	International brand of explosion-proof terminal
Indicator	Red
Degree of protection	IP65
Internal&external earthing	M6/M8
Ambient temperature	-20℃~+55℃
Cable entries	Standard M□ x 1.5 plug (see the Selection table on P6/4)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~19
Entry direction	Bottom
Mounting	Surface type (standard) Pedestal type (optional)

Electrical schematic diagram



BXM51 Series explosion-proof illumination distribution boxes

Distribution Boxes
BXM51 Series Explosion-proof Illumination Distribution Boxes (Ex d e IIB)

Selection table of BXM 51 series explosion-proof illumination distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXM51-4/□/K/□	MCB or MCCB Current: max. 100A	4	MCB 1 P/2 P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	1+4	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM51-6/□/K/□		6			1+6	1 x M40 x 1.5 + 6 x M25 x 1.5
BXM51-8/□/K/□		8			1+8	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM51-10/□/K/□		10			1+10	1 x M40 x 1.5 + 10 x M25 x 1.5
BXM51-12/□/K/□		12			1+12	1 x M40 x 1.5 + 12 x M25 x 1.5
BXM51-4/□	—	4	MCB 1 P/2 P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	4	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM51-6/□		6			6	1 x M40 x 1.5 + 6 x M25 x 1.5
BXM51-8/□		8			8	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM51-10/□		10			10	1 x M40 x 1.5 + 10 x M25 x 1.5
BXM51-12/□		12			12	1 x M40 x 1.5 + 12 x M25 x 1.5

Note

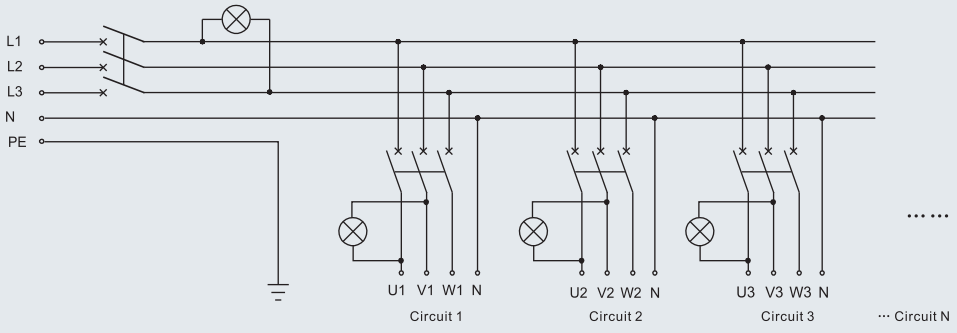
1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

Technical data

Explosion-proof power distribution boxes BXD51-□/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIB T6
Dust explosion protection	Ex tD A21 IP65 T80℃
Certificates	
For gas explosion protection	PTB 03 ATEX 1078; IECEx CQM 07.0012
For dust explosion protection	PCEC (China)
Conformity to standards	EN 50014, EN 50018, EN 50019 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 61241-0, IEC 61241-1
General power supply	Rated voltage: max. 415V AC 50/60Hz; Rated current: max. 250A
Branch current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Exposed fastener	Stainless steel
Enclosure	
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Enclosure type	Modular combination (Ex d & Ex e); MCB, MCCB or other components in Ex d compartment, explosion-proof indicators and terminals in Ex e compartment.
Built-in components	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Terminal	International brand of explosion-proof terminal
Indicator	Red
Degree of protection	IP65
Internal&external earthing	M6/M8
Ambient temperature	-20℃~+55℃
Cable entries	Standard M□ x 1.5 plug (see the Selection table on P6/6)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~19
Entry direction	Bottom
Mounting	Surface type (standard) Pedestal type (optional)

Electrical schematic diagram



BXD51 Series explosion-proof power distribution boxes

Distribution Boxes
BXD51 Series Explosion-proof Power Distribution Boxes (Ex d e IIB)

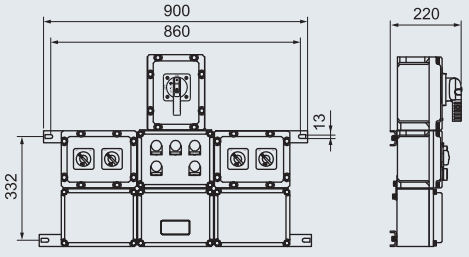
Selection table of BXD51 series explosion-proof power distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXD51-4/□/K/□	MCB or MCCB Current: max. 250A	4	MCB 3P	1A 2A 4A 6A 10A 16A 20A 25A 32A 40A 50A 63A On request	1+4	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD51-6/□/K/□		6			1+6	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD51-8/□/K/□		8			1+8	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD51-10/□/K/□		10			1+10	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD51-12/□/K/□		12			1+12	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD51-4/□	—	4	MCB 3P	1A 2A 4A 6A 10A 16A 20A 25A 32A 40A 50A 63A On request	4	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD51-6/□		6			6	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD51-8/□		8			8	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD51-10/□		10			10	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD51-12/□		12			12	1 x M50 x 1.5 + 12 x M25 x 1.5

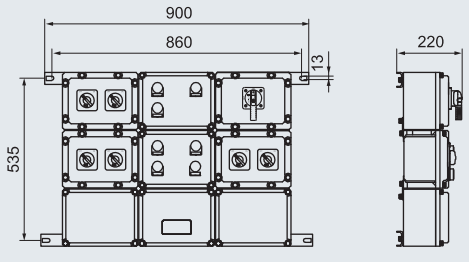
Note

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

Dimension drawings (all dimensions in mm) - subject to alteration

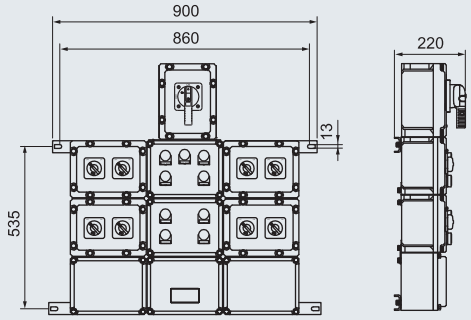


BXM(D)51-4/□/K/□

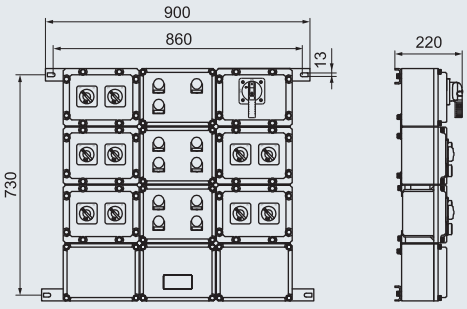


BXM(D)51-6/□/K/□

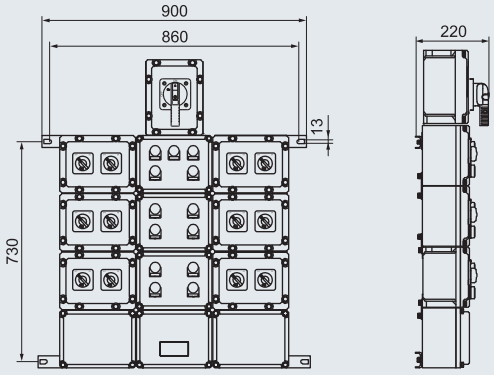
Dimension drawings (all dimensions in mm) - subject to alteration



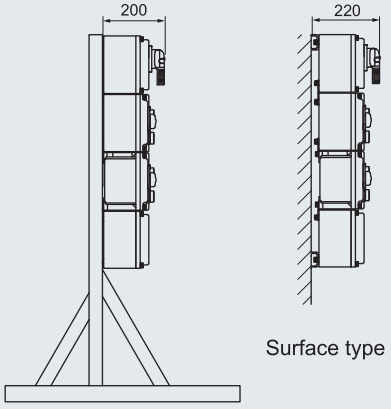
BXM(D)51-8/□/K/□



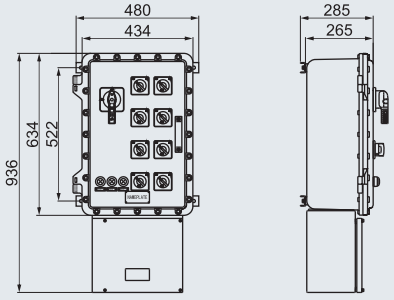
BXM(D)51-10/□/K/□



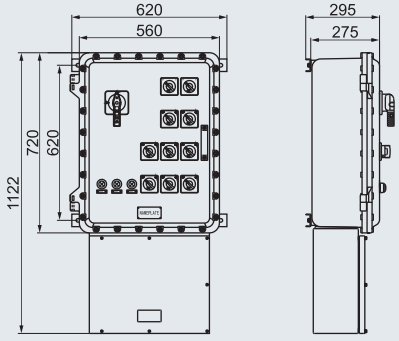
BXM(D)51-12/□/K/□



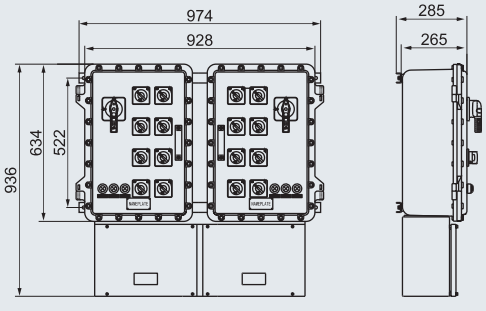
Pedestal type



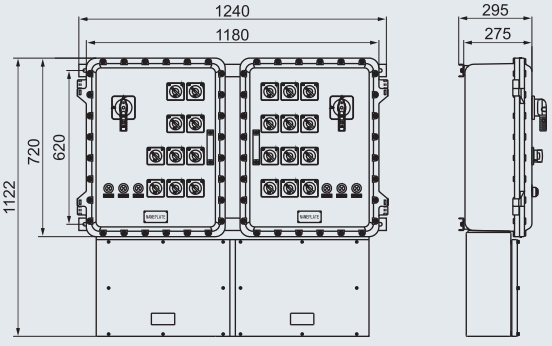
BXM(D)51-8/□/K/□



BXM(D)51-10/□/K/□



BXM(D)51-16/□/K/□



BXM(D)51-22/□/K/□

Distribution Boxes

BXM(D)53 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d e IIC)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A, B, C, D
- Enclosure for modular combination (Ex d & Ex e).
- Main switch and branch switch are operated with external rotary actuator.
- Internal wiring to the terminal is finished.
- International brand of explosion-proof terminal.
- Copper-free aluminium, powder coated surface.
- Entries plugged. Cable glands on request (see P7/17~19).
- Special requirements on request.

Catalogue number logic

BX M(D) 53- □/□/□/□

- Main switch current
- K: with main switch (optional)
- Branch current
- Number of branch circuit
- Design No.
- M: illumination D: power
- Explosion-proof distribution boxes

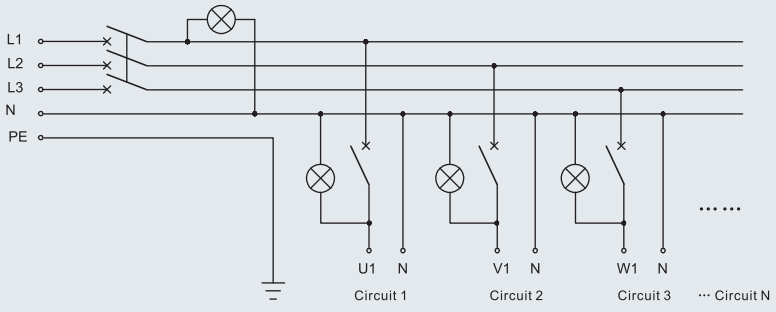
Zones 1&2; 21&22

Technical data

Explosion-proof illumination distribution boxes BXM53-□/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db eb IIC T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	TÜV CY 18 ATEX 0206016X; IECEx CQM 11.0042X; KZ.7500525.22.01.00373 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
General power supply	Rated voltage: max. 690V AC 50/60Hz; Rated current: max.100A
Branch current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A
Exposed fastener	Stainless steel
Enclosure	
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Enclosure type	Modular combination (Ex d & Ex e); MCB, MCCB or other components in Ex d compartment, explosion-proof indicators and terminals in Ex e compartment.
Built-in components	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)
	Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)
	Note: earth leakage protection on request
Terminal	International brand of explosion-proof terminal
Indicator	Red
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-40℃~+55℃
Cable entries	Standard M□ x 1.5 plug (see the Selection table on P6/10)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~19
Entry direction	Bottom
Mounting	Surface type (standard)
	Pedestal type (optional)

Electrical schematic diagram



BXM53 Series explosion-proof illumination distribution boxes

Distribution Boxes
BXM53 Series Explosion-proof Illumination Distribution Boxes (Ex d e IIC)

Selection table of BXM53 series explosion-proof illumination distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXM53-4/□/K/□	MCB or MCCB Current: max. 100A	4	MCB 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	1+4	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM53-6/□/K/□		6			1+6	1 x M40 x 1.5 + 6 x M25 x 1.5
BXM53-8/□/K/□		8			1+8	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM53-10/□/K/□		10			1+10	1 x M40 x 1.5 + 10 x M25 x 1.5
BXM53-12/□/K/□		12			1+12	1 x M40 x 1.5 + 12 x M25 x 1.5
BXM53-4/□	—	4	MCB 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	4	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM53-6/□		6			6	1 x M40 x 1.5 + 6 x M25 x 1.5
BXM53-8/□		8			8	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM53-10/□		10			10	1 x M40x 1.5 + 10 x M25 x 1.5
BXM53-12/□		12			12	1 x M40 x 1.5 + 12 x M25 x 1.5

Note

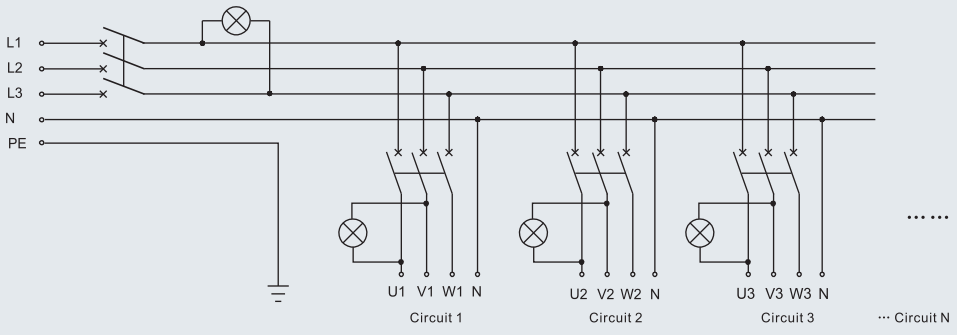
1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

Technical data

Explosion-proof power distribution boxes BXD53-□/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db eb IIC T5 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	TÜV CY 18 ATEX 0206016X; IECEx CQM 11.0042X; KZ.7500525.22.01.00373 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
General power supply	Rated voltage: max. 690V AC 50/60Hz; Rated current: max.200A
Branch current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Exposed fastener	Stainless steel
Enclosure	
Enclosure material	Copper-free aluminium, powder coated surface
Enclosure colour	Window grey (RAL7040)
Enclosure type	Modular combination (Ex d & Ex e); MCB, MCCB or other components in Ex d compartment, explosion-proof indicators and terminals in Ex e compartment.
Built-in components	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)
	Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker)
	Note: earth leakage protection on request
Terminal	International brand of explosion-proof terminal
Indicator	Red
Degree of protection	IP66
Internal&external earthing	M6/M8
Ambient temperature	-40℃~+55℃
Cable entries	Standard M□ x 1.5 plug (see the Selection table on P6/12)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/17~19
Entry direction	Bottom
Mounting	Surface type (standard)
	Pedestal type (optional)

Electric schematic diagram



BXD53 Series explosion-proof power distribution boxes

Distribution Boxes
BXD53 Series Explosion-proof Power Distribution Boxes (Ex d e IIC)

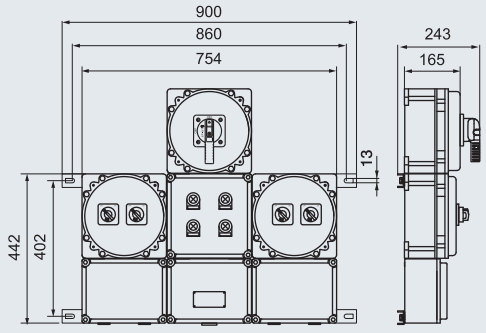
Selection table of BXD53 series explosion-proof power distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXD53-4/□/K/□	MCB or MCCB Current: max. 200A	4	MCB 3P	1A 2A 4A 6A 10A 16A 20A 25A 32A 40A 50A 63A On request	1+4	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD53-6/□/K/□		6			1+6	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD53-8/□/K/□		8			1+8	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD53-10/□/K/□		10			1+10	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD53-12/□/K/□		12			1+12	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD53-4/□	—	4	MCB 3P	1A 2A 4A 6A 10A 16A 20A 25A 32A 40A 50A 63A On request	4	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD53-6/□		6			6	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD53-8/□		8			8	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD53-10/□		10			10	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD53-12/□		12			12	1 x M50 x 1.5 + 12 x M25 x 1.5

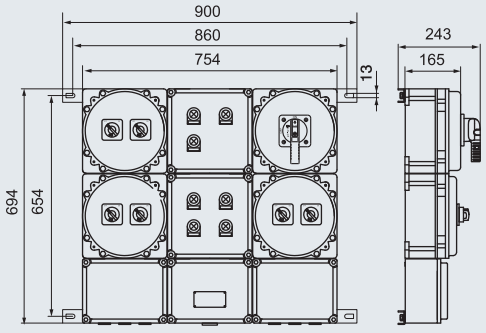
Note

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

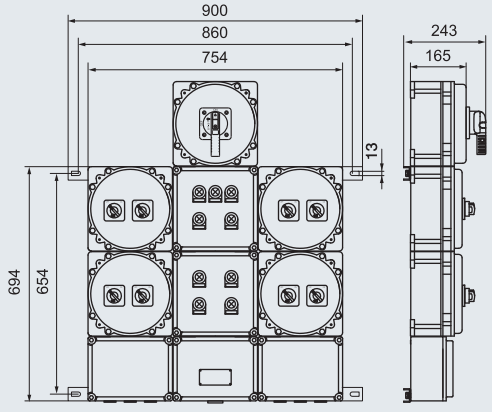
Dimension drawings (all dimensions in mm) - subject to alteration



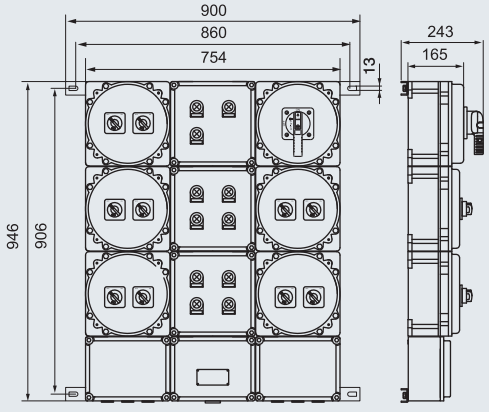
BXM(D)53-4/□/K/□



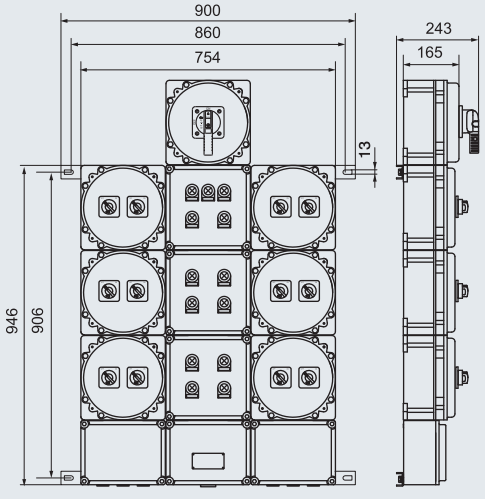
BXM(D)53-6/□/K/□



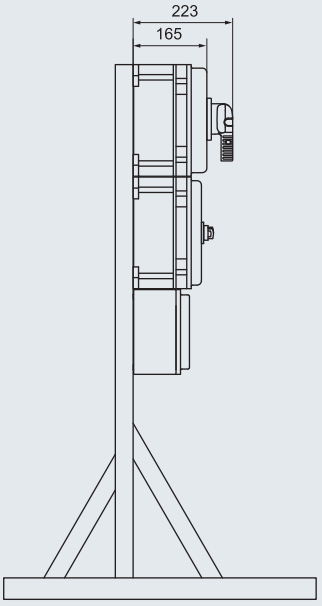
BXM(D)53-8/□/K/□



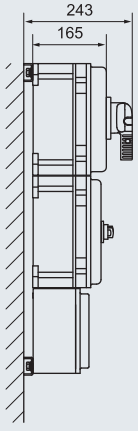
BXM(D)53-10/□/K/□



BXM(D)53-12/□/K/□



Pedestal type



Surface type

Distribution Boxes

BXM(D)81 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d IIB+H2)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups C, D
- Flameproof enclosure (Ex d IIB)
- Main switch and branch switch are operated with external rotary atcuator.
- Internal wiring to the terminal is finished.
- International brand of terminal.
- Copper-free aluminium (carbon steel), powder coated surface, or stainless steel.
- Entries plugged. Cable glands on request (see P7/20~29).
- Special requirements on request.

Catalogue number logic

BX M(D) 81- □/□/□/□

- Main switch current
- K: with main switch (optional)
- Branch current
- Number of branch circuit
- Design No.
- M: illumination D: power
- Explosion-proof distribution boxes

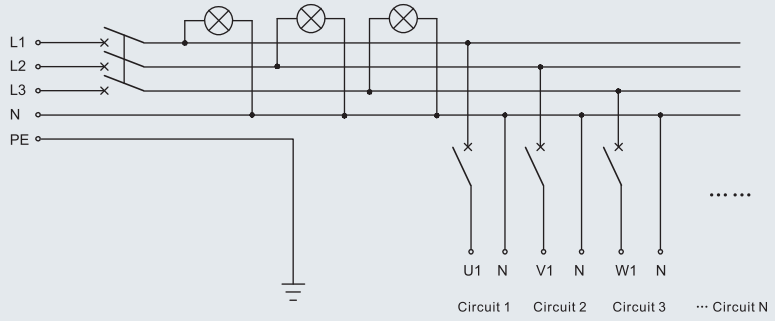
Zones 1&2; 21&22

Technical data

Explosion-proof illumination distribution boxes BXM81-□/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB+H_2 T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 11 ATEX 3064X; IECEx CQM 11.0032X
	RU C-CN.ГБ05.B.00345 (CU-TR); RU C-CN. ГЬ08.B.01257
	KZ.7500525.22.01.00373 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-31
General power supply	Rated voltage: max. 690V AC 50/60Hz; Rated current: max. 100A
Branch current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A
Exposed fastener	Stainless steel
Enclosure material	Copper-free aluminium (carbon steel), powder coated surface, or stainless steel
Enclosure colour	Window grey (RAL7040)
Built-in components	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Terminal	International brand of terminal
Indicator	Red, green, yellow
Degree of protection	IP66, IP67 (optional)
Internal&external earthing	M6/M8, M8/M8
Ambient temperature	-60℃~+55℃
Cable entries	Standard M□ x 1.5 plug (see the Selection table on P6/16)
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Mounting	Surface type (standard) Pedestal type (optional)

Electrical schematic diagram



BXM81 Series explosion-proof illumination distribution boxes

Distribution Boxes
BXM81 Series Explosion-proof Illumination Distribution Boxes (Ex d IIB+H2)

Selection table of BXM81 series explosion-proof illumination distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXM81-4/□/K/□	MCB or MCCB Current: max. 100A	4	MCB 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	3	1 x M32 x 1.5 + 4 x M25 x 1.5
BXM81-6/□/K/□		6			3	1 x M40 x 1.5 + 6 x M25 x 1.5
BXM81-8/□/K/□		8			3	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM81-10/□/K/□		10			3	1 x M40 x 1.5 + 10 x M25 x 1.5
BXM81-12/□/K/□		12			3	1 x M40 x 1.5 + 12 x M25 x 1.5
BXM81-4/□	—	4	MCB 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	3	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM81-6/□		6			3	1 x M40 x 1.5 + 6 x M25 x 1.5
BXM81-8/□		8			3	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM81-10/□		10			3	1 x M40x 1.5 + 10 x M25 x 1.5
BXM81-12/□		12			3	1 x M40 x 1.5 + 12 x M25 x 1.5

Note

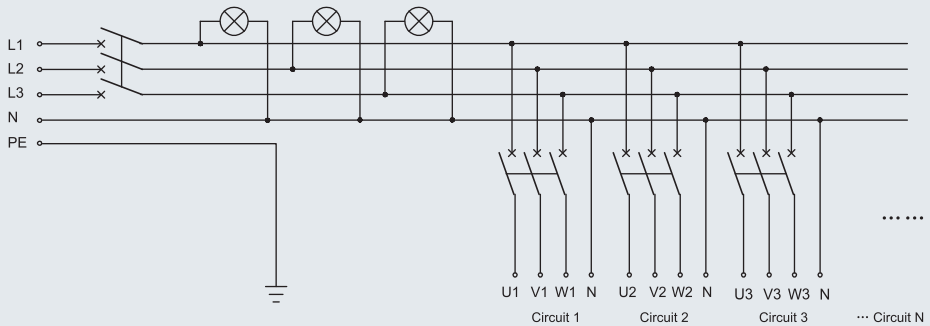
1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

Technical data

Explosion-proof power distribution boxes BXD81-□/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB+H_2 T6 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	LCIE 11 ATEX 3064X; IECEx CQM 11.0032X RU C-CN.ГБ05.B.00345 (CU-TR); RU C-CN. ГЬ08.B.01257 KZ.7500525.22.01.00373 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
General power supply	Rated voltage: max. 690V AC 50/60Hz; Rated current: max. 630A
Branch current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A 80A, 100A, 125A, 160A, 200A, 250A, 320A, 400A
Exposed fastener	Stainless steel
Enclosure material	Copper-free aluminium (carbon steel), powder coated surface, or stainless steel
Enclosure colour	Window grey (RAL7040)
Built-in components	
Main switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Branch switch	MCB (miniature circuit breaker) or MCCB (moulded case circuit breaker) Note: earth leakage protection on request
Terminal	International brand of terminal
Indicator	Red, green, yellow
Degree of protection	IP66, IP67 (optional)
Internal&external earthing	M6/M8, M8/M8
Ambient temperature	-60℃~+55℃
Cable entries	Standard M□ x 1.5 plug (see the Selection table on P6/18)
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29
Entry direction	Bottom
Mounting	Surface type (standard) Pedestal type (optional)

Electrical schematic diagram



BXD81 Series explosion-proof power distribution boxes

BXD81 Series Explosion-proof Power Distribution Boxes (Ex d IIB+H_2)

Selection table of BXD81 series explosion-proof power distribution boxes

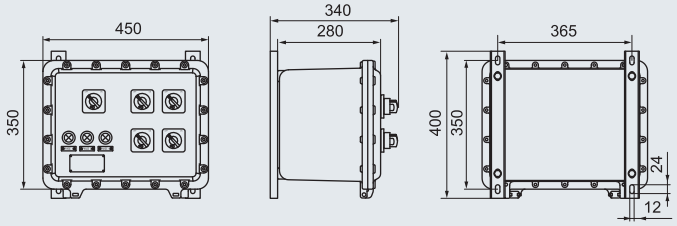
Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXD81-4/□/K/□	MCB or MCCB Current: max. 630A	4	MCB or MCCB 3P	1A, 2A 4A, 6A 10A, 16A 20A, 25A 32A, 40A 50A, 63A 80A, 100A 125A, 160A 200A, 250A 320A, 400A On request	3	1 x M50(M63, M75, M90) x 1.5 + 4 x M25(M32, M40, M50, M63) x 1.5
BXD81-6/□/K/□		6			3	1 x M50(M63, M75, M90) x 1.5 + 6 x M25(M32, M40, M50, M63) x 1.5
BXD81-8/□/K/□		8			3	1 x M50(M63, M75, M90) x 1.5 + 8 x M25(M32, M40, M50, M63) x 1.5
BXD81-10/□/K/□		10			3	1 x M50(M63, M75, M90) x 1.5 + 10 x M25(M32, M40, M50, M63) x 1.5
BXD81-12/□/K/□		12			3	1 x M50(M63, M75, M90) x 1.5 + 12 x M25 x 1.5
BXD81-4/□	—	4	MCB or MCCB 3P	1A, 2A 4A, 6A 10A, 16A 20A, 25A 32A, 40A 50A, 63A 80A, 100A 125A, 160A 200A, 250A 320A, 400A On request	3	1 x M50(M63, M75, M90) x 1.5 + 4 x M25(M32, M40, M50, M63) x 1.5
BXD81-6/□		6			3	1 x M50(M63, M75, M90) x 1.5 + 6 x M25(M32, M40, M50, M63) x 1.5
BXD81-8/□		8			3	1 x M50(M63, M75, M90) x 1.5 + 8 x M25(M32, M40, M50, M63) x 1.5
BXD81-10/□		10			3	1 x M50(M63, M75, M90) x 1.5 + 10 x M25(M32, M40, M50, M63) x 1.5
BXD81-12/□		12			3	1 x M50(M63, M75, M90) x 1.5 + 12 x M25(M32, M40, M50, M63) x 1.5

Note

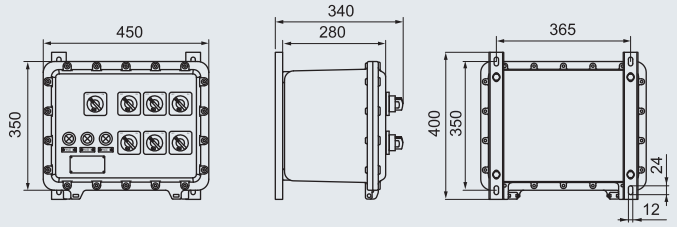
1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

Dimension drawings (all dimensions in mm) - subject to alteration

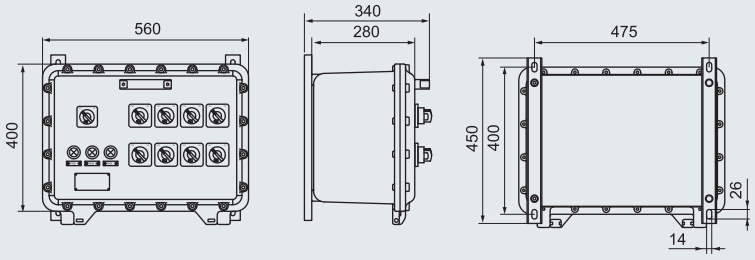
Note: The following drawings are suitable for copper-free aluminium products



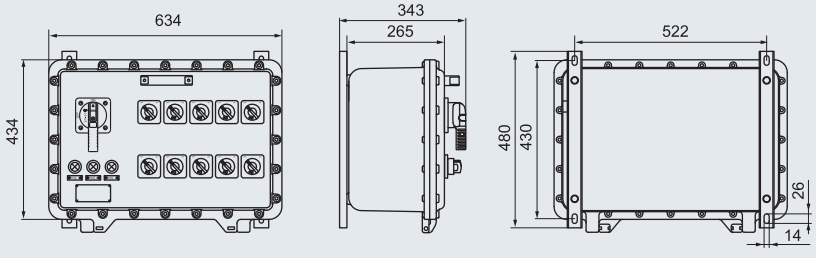
BXM81-4/□/K/□



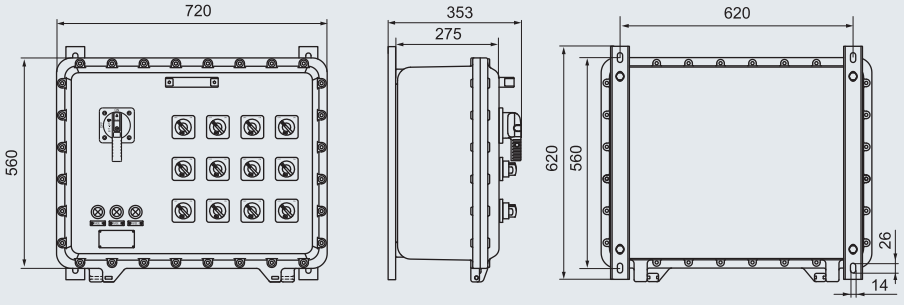
BXM81-6/□/K/□



BXM81-8/□/K/□



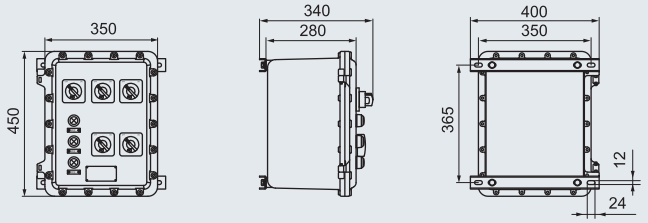
BXM81-10/□/K/□



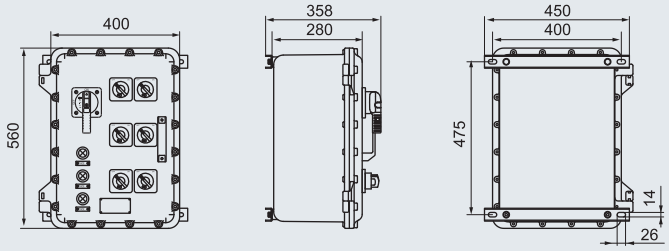
BXM81-12/□/K/□

Dimension drawings (all dimensions in mm) - subject to alteration

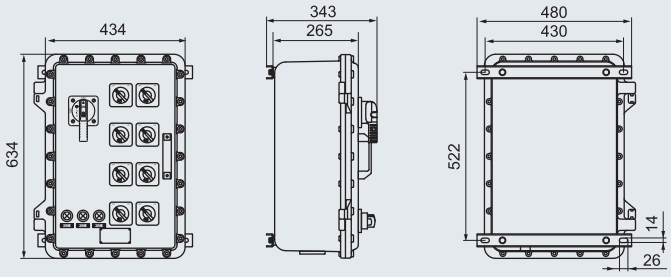
Note: The following drawings are suitable for copper-free aluminium products



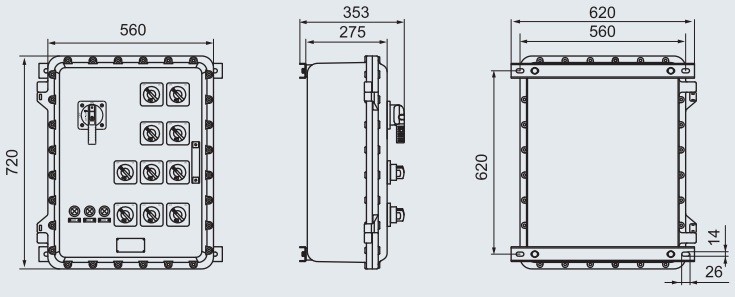
BXD81-4/□/K/□



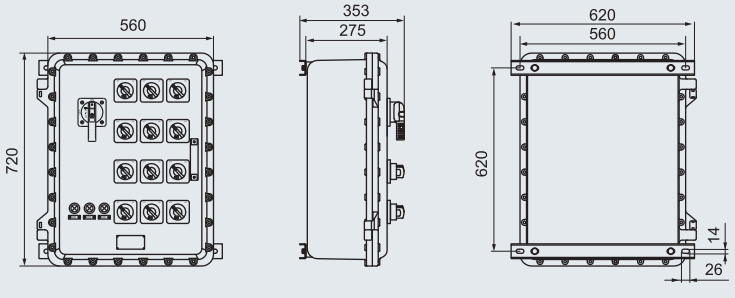
BXD81-6/□/K/□



BXD81-8/□/K/□



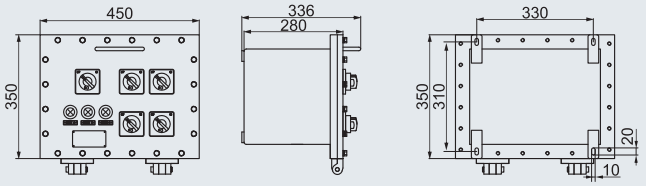
BXD81-10/□/K/□



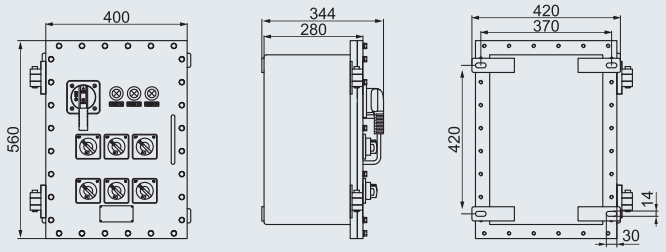
BXD81-12/□/K/□

Dimension drawings (all dimensions in mm) - subject to alteration

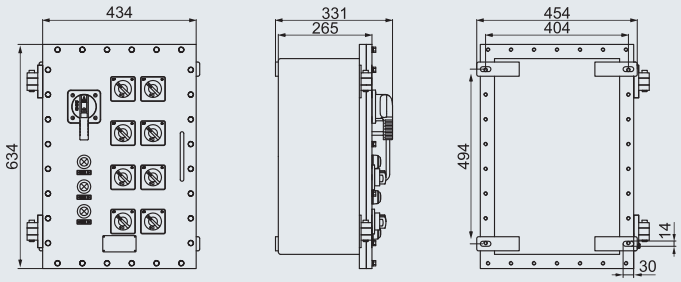
Note: The following drawings are suitable for carbon steel or stainless steel products



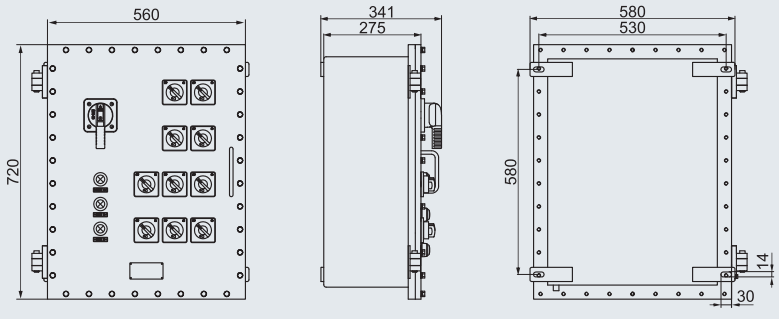
BXM(D)81-4/□/K/□



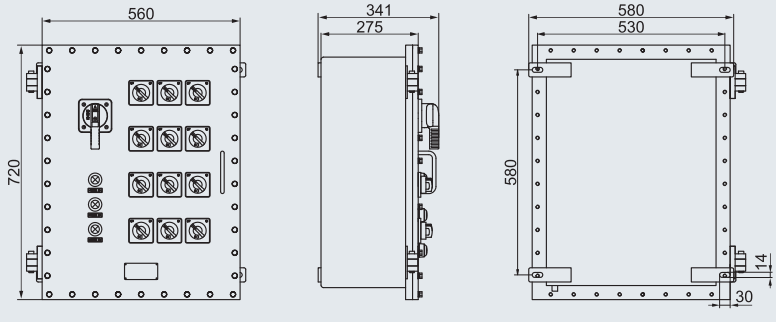
BXM(D)81-6/□/K/□



BXM(D)81-8/□/K/□



BXM(D)81-10/□/K/□



BXM(D)81-12/□/K/□

Distribution Boxes
HRMD91 Series Explosion-proof Distribution Equipments



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups B, C, D
- Flameproof enclosure (Ex d IIB+H2), which can be used as feed distribution equipment in control and distribution system(such as distribution box, switch box of main circuit ,control box, terminal box or motor starting box etc.)
- Copper-free aluminium enclosure, powder coated surface.
- Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the box, and greatly prolong the service life of box.
- The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- Special requirements on request.

Catalogue number logic

HRMD 91 - □/□/□

- Rated current (A)
- Rated voltage (V)
- Specification code(I,II,IIB.....)
- Design No.
- Explosion-proof Distribution Equipments

WAROM

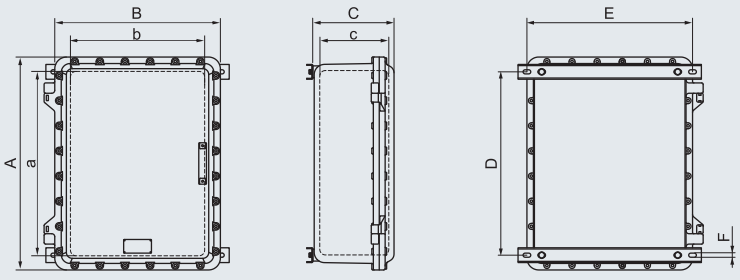
Zones1& 2; 21& 22

Technical data

Explosion-proof Distribution Equipments HRMD91-□/□/□

Explosion protection	
Gas explosion protection	Ex II 2 G Ex db IIB+H_2 T□[1] Gb
Dust explosion protection	Ex II 2 D Ex tb IIIC T□[1] Db IP66
	[1]See Selection table, P6/24
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	Copper-free aluminium enclosure, powder coated surface, window grey (RAL7040)
Exposed fastener	Stainless steel
Built-in components	
Power circuit breaker	MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker)
Branch switch	MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker)
Terminal	International brand of terminal
Indicator	Red, green, yellow, blue
Pushbutton	Red, green, yellow
Control switch	HK series control switches
AC contactor	International famous brand
Thermal overload relay	International famous brand
PLC programmer	International famous brand
Soft starter	International famous brand
Rated voltage	Max. 1000V AC 50/60Hz
Rated current	Max. 1200A
Degree of protection	IP66
Internal&external earthing	M6/M8, M8/M8
Ambient temperature	-60℃~+60℃
Cable entries	Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT thread can be customized.
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.
Entry direction	Bottom
Mounting	Surface type (standard) Pedestal type (optional)

Dimension drawings (all dimensions in mm) - subject to alteration



Selection table of HRMD91 explosion-proof distribution equipment

Version	Max. dissipated power (W)			Max.rated current	External dimension			Internal dimension			Mounting dimension			Weight of enclosure (kg)
	T4/T130℃	T5/T95℃	T6/T80℃		A	B	C	a	b	c	D	E	F	
HRMD91-Ⅰ	200	120	80	63A	250	200	170	192	142	131	180	130	10	6.70
HRMD91-Ⅱ	200	120	80	63A	300	200	170	242	142	131	230	130	10	8.00
HRMD91-ⅡB	240	140	100	100A	350	200	170	292	142	131	280	130	10	9.50
HRMD91-Ⅲ	290	170	125	160A	350	300	200	290	240	159	280	230	12	14.50
HRMD91-ⅢB	350	200	130	200A	350	300	270	290	240	229	280	230	12	17.50
HRMD91-Ⅳ	420	230	140	250A	450	350	210	378	278	163	365	265	12	23.00
HRMD91-ⅣB	500	280	160	320A	450	350	280	378	278	233	365	265	12	27.50
HRMD91-Ⅴ	520	320	190	400A	560	400	210	488	328	155	475	315	14	34.50
HRMD91-ⅤB	620	350	200	500A	560	400	280	488	328	225	475	315	14	39.50
HRMD91-Ⅵ	660	380	220	630A	634	434	265	560	360	205	522	322	14	46.00
HRMD91-ⅥB	660	380	220	630A	634	434	335	560	360	275	522	322	14	52.00
HRMD91-Ⅶ	700	400	250	800A	720	560	275	640	480	215	620	460	14	74.50
HRMD91-ⅦB	700	400	250	1000A	720	560	345	640	480	285	620	460	14	83.00
HRMD91-Ⅷ	800	500	350	1000A	980	720	275	880	620	190	820	560	18	165.00
HRMD91-ⅧB	800	500	350	1000A	980	720	375	880	620	290	820	560	18	185.00
HRMD91-Ⅸ	1000	600	500	1200A	1280	900	300	1180	800	205	1120	740	18	275.00
HRMD91-ⅨB	1000	600	500	1200A	1280	900	450	1160	740	360	1120	730	18	315.00

Note: 1. No cable entries for standard design. Cable entries shall be drilled by user.
2. For cable entries:
1). Please specify the direction and size of each cable entry.
2). Cable gland is optional, DQM-Ⅱ (Ex d) or DQM-Ⅲ (Ex d) is recommended, please see P7/20~29.

HRMD91 Explosion-proof distribution equipment for terminal box use

Suitable for terminal boxes of distribution system

Note: 1. HRMD91 terminal boxes have various different terminal arrangement methods.
2. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The Max. number of terminals and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.
3. This table is only for reference.

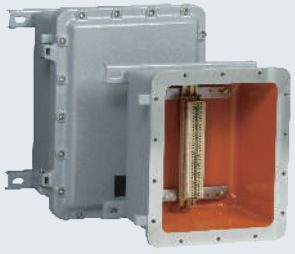


Illustration of HRMD91 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

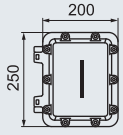
Version	Terminal arrangement	Terminal size(mm^2)									
		2.5	4	6	10	16	35	70	120	185	300
HRMD91-Ⅰ		20	18	15	12	9	-	-	-	-	-

Illustration of HRMD91 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

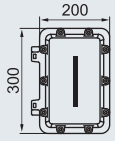
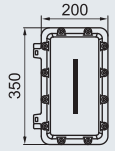
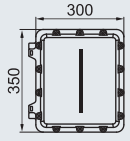
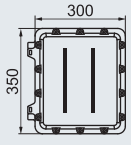
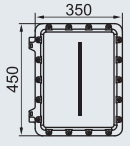
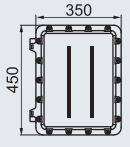
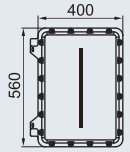
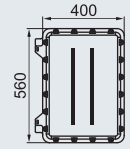
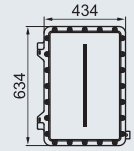
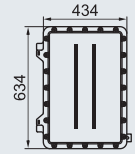
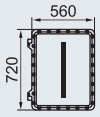
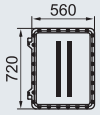
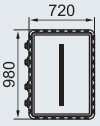
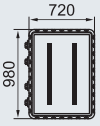
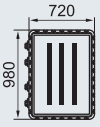
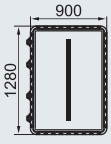
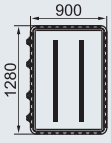
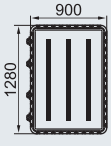
Version	Terminal arrangement	Terminal size(mm^2)									
		2.5	4	6	10	16	35	70	120	185	300
HRMD91-II		28	25	21	18	15	5	-	-	-	-
HRMD91-IIB		36	32	28	24	20	5	-	-	-	-
HRMD91-III HRMD91-IIIB		72	64	56	24	20	10	5	-	-	-
		72	64	56	24	20	10	5	-	-	-
HRMD91-IV HRMD91-IVB		100	90	80	60	25	15	10	5	-	-
		100	90	80	60	25	15	10	5	-	-
HRMD91-V HRMD91-VB		140	130	100	80	70	24	18	5	5	5
		140	130	100	80	70	24	18	5	5	5
HRMD91-VI HRMD91-VIB		160	140	120	100	80	56	22	10	5	5
		160	140	120	100	80	56	22	10	5	5

Illustration of HRMD91 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

Version	Terminal arrangement	Terminal size(mm^2)									
		2.5	4	6	10	16	35	70	120	185	300
HRMD91-VII HRMD91-VIIB		90	80	70	60	40	25	25	14	10	5
		270	240	210	165	135	64	25	12	10	5
HRMD91-VIII HRMD91-VIIIB		270	240	210	165	135	64	25	12	10	5
		264	248	200	160	136	90	72	42	-	-
		396	372	300	240	204	135	-	-	-	-
HRMD91-IX HRMD91-IXB		640	600	488	392	328	165	90	24	18	16
		360	340	272	220	184	124	100	56	40	-
		540	510	408	330	276	186	-	-	-	-

HRMD91 Explosion-proof Distribution Equipment for control box use

Suitable for control unit of distribution system

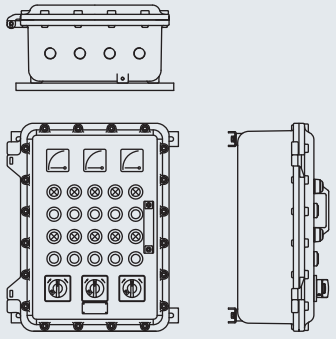
Note: 1. HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/voltmeters etc.in HRMD91 control boxes.

2. HRMD91 control box can be used for on-off operation of circuit. It also can realize the remote control or local control of the start, stop, corotation and inversion of motor. When it is equipped with ammeter, it also can monitor the running of motor and circuit status.

3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

Example diagram for control box use





HRMD91 Explosion-proof distribution equipment for distribution box use

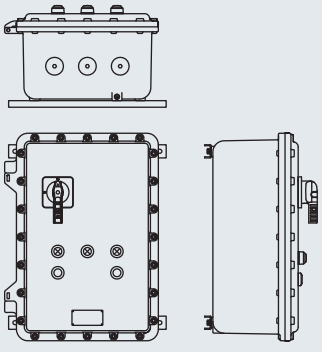
Suitable for power units of distribution system

Note: 1. MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker), AC contactor, thermal overload relay, PLC programmer, soft starter, HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/ voltmeters etc. in HRMD91 distribution boxes.

2. HRMD91 power unit can be used for distribution or on-off of circuit. It also can be used for controlling the start, stop, corotation and inversion of motor and provide comprehensive protection for motor. It can be equipped with two-site control or multi-site control.
3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

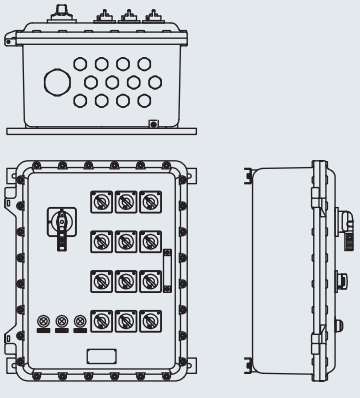
Example diagram for distribution box use





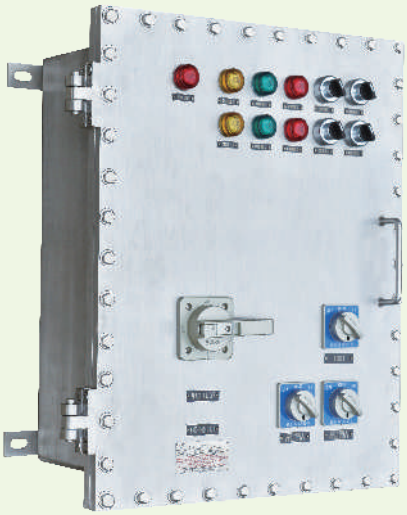
Use for motor starting





Use for illumination (power) distribution

Distribution Boxes
HRMD92 Series Explosion-proof Distribution Equipments



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups B, C, D
- Flameproof enclosure (Ex d IIB+H2), which can be used as feed distribution equipment in control and distribution system (such as distribution box, switch box of main circuit ,control box, terminal box or motor starting box etc.)
- Enclosure: 316 stainless steel.
- Equipped with specialized hinge structure, which can prevent the flameproof joints from damage when opening and closing the box, and greatly prolong the service life of box.
- The boxes can be combined and installed freely to save space and meet the requirements of various distribution systems.
- Special requirements on request.

Catalogue number logic

HRMD 92 - □/□/□

- Rated current (A)
- Rated voltage (V)
- Specification code(I,II,IIB.....)
- Design No.
- Explosion-proof Distribution Equipments

WAROM

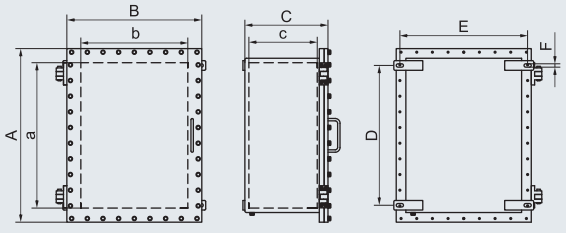
Zones1& 2; 21& 22

Technical data

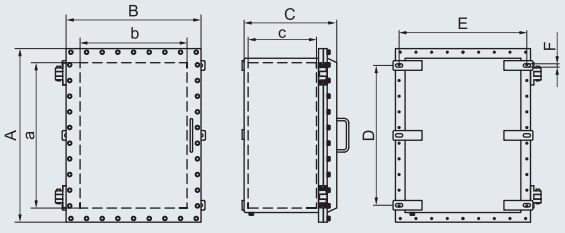
Explosion-proof Distribution Equipments HRMD92-□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB+H_2 T□[1] Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T□[1] Db IP66
	[1]See Selection table, P6/30
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Enclosure material	316 stainless steel.
Exposed fastener	Stainless steel
Built-in components	
Power circuit breaker	MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker)
Branch switch	MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker)
Terminal	International brand of terminal
Indicator	Red, green, yellow, blue
Pushbutton	Red, green, yellow
Control switch	HK series control switches
AC contactor	International famous brand
Thermal overload relay	International famous brand
PLC programmer	International famous brand
Soft starter	International famous brand
Rated voltage	Max. 1000V AC 50/60Hz
Rated current	Max. 1200A
Degree of protection	IP66
Ambient temperature	-60℃~+60℃
Cable entries	Standard M□ x 1.5 plug (the size of entry hole should be processed in accordance with actual requirements), NPT thread can be customized.
Cable gland (optional)	DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~27.
Entry direction	Bottom
Mounting	Surface type (standard) Pedestal type (optional)

Dimension drawings (all dimensions in mm) - subject to alteration



HRMD92-I/□/□ ~ HRMD92-VIIB/□/□



HRMD92-VIII/□/□ ~ HRMD92-IXB/□/□

Selection table of HRMD92 explosion-proof distribution equipment

Version	Max. dissipated power (W)			Max.rated current	External dimension			Internal dimension			Mounting dimension			Weight of enclosure (kg)
	T4/T130℃	T5/T95℃	T6/T80℃		A	B	C	a	b	c	D	E	F	
HRMD92-Ⅰ	200	120	80	63A	250	200	170	192	142	135	160	180	9	11.00
HRMD92-Ⅱ	200	120	80	63A	300	200	170	242	142	135	210	180	10	12.00
HRMD92-ⅡB	240	140	100	100A	350	200	200	292	142	163	260	190	10	14.00
HRMD92-Ⅲ	290	170	125	160A	350	300	200	292	242	168	260	290	10	20.00
HRMD92-ⅢB	350	200	130	200A	350	300	270	292	242	238	260	290	10	22.00
HRMD92-Ⅳ	420	230	140	250A	450	350	280	362	262	233	330	318	10	47.00
HRMD9-ⅣB	500	280	160	320A	450	350	280	362	262	233	330	318	10	51.00
HRMD92-Ⅴ	520	320	190	400A	560	400	210	468	308	163	420	370	14	64.00
HRMD92-ⅤB	620	350	200	500A	560	400	280	468	308	225	420	370	14	69.00
HRMD92-Ⅵ	660	380	220	630A	634	434	265	542	342	218	494	404	14	80.00
HRMD92-ⅥB	660	380	220	630A	634	434	335	542	342	319	494	404	14	86.00
HRMD92-Ⅶ	700	400	250	800A	720	560	275	628	468	228	580	530	14	112.00
HRMD92-ⅦB	700	400	250	1000A	720	560	345	628	468	298	580	530	14	120.00
HRMD92-Ⅷ	800	500	350	1000A	980	720	325	884	624	272	840	690	14	290.00
HRMD92-ⅧB	800	500	350	1000A	980	720	425	884	624	372	840	690	14	310.00
HRMD92-Ⅸ	1000	600	500	1200A	1280	900	350	1184	804	297	1140	870	14	520.00
HRMD92-ⅨB	1000	600	500	1200A	1280	900	500	1184	804	447	1140	870	14	570.00

Note: 1. No cable entries for standard design. Cable entries shall be drilled by user.
2. For cable entries:
1). Please specify the direction and size of each cable entry.
2). Cable gland is optional, DQM-Ⅱ (Ex d) or DQM-Ⅲ (Ex d) is recommended, please see P7/20~29.

HRMD92 Explosion-proof distribution equipment for terminal box use

Suitable for terminal boxes of distribution system

Note: 1. HRMD92 terminal boxes have various different terminal arrangement methods.
2. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The Max. number of terminals and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.
3. This table is only for reference.



Illustration of HRMD92 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

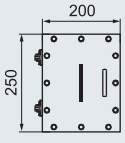
Version	Terminal arrangement	Terminal size(mm^2)									
		2.5	4	6	10	16	35	70	120	185	300
HRMD92-Ⅰ		20	18	15	12	9	-	-	-	-	-

Illustration of HRMD92 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

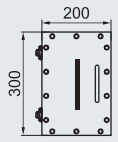
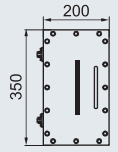
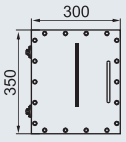
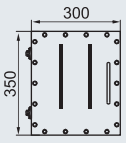
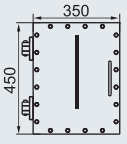
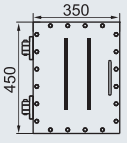
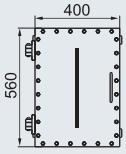
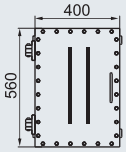
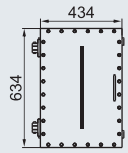
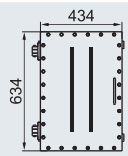
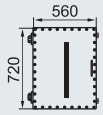
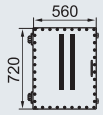
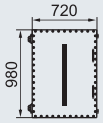
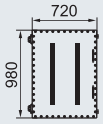
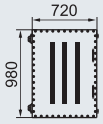
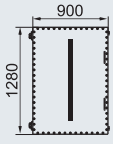
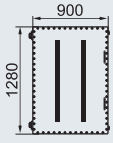
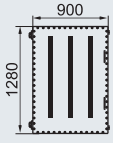
Version	Terminal arrangement	Terminal size(mm^2)									
		2.5	4	6	10	16	35	70	120	185	300
HRMD92-II		28	25	21	18	15	5	-	-	-	-
HRMD92-IIB		36	32	28	24	20	5	-	-	-	-
HRMD92-III HRMD92-IIIB		72	64	56	24	20	10	5	-	-	-
		72	64	56	24	20	10	5	-	-	-
HRMD92-IV HRMD92-IVB		100	90	80	60	25	15	10	5	-	-
		100	90	80	60	25	15	10	5	-	-
HRMD92-V HRMD92-VB		140	130	100	80	70	24	18	5	5	5
		140	130	100	80	70	24	18	5	5	5
HRMD92-VI HRMD92-VIB		160	140	120	100	80	56	22	10	5	5
		160	140	120	100	80	56	22	10	5	5

Illustration of HRMD92 Explosion-proof Distribution Equipment for terminal box use

See table for Max. number of fitted terminals

Version	Terminal arrangement	Terminal size(mm^2)									
		2.5	4	6	10	16	35	70	120	185	300
HRMD92-VII HRMD92-VIIB		90	80	70	60	40	25	25	14	10	5
		270	240	210	165	135	64	25	12	10	5
HRMD92-VIII HRMD92-VIIIB		270	240	210	165	135	64	25	12	10	5
		264	248	200	160	136	90	72	42	-	-
		396	372	300	240	204	135	-	-	-	-
HRMD92-IX HRMD92-IXB		640	600	488	392	328	165	90	24	18	16
		360	340	272	220	184	124	100	56	40	-
		540	510	408	330	276	186	-	-	-	-

HRMD92 Explosion-proof Distribution Equipment for control box use

Suitable for control unit of distribution system

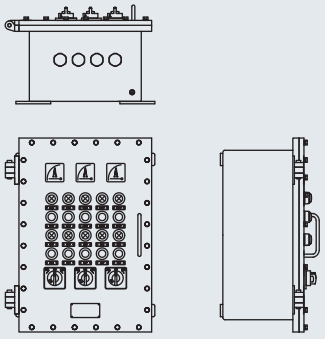
Note: 1. HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/voltmeters etc.in HRMD92 control boxes.

2. HRMD92 control box can be used for on-off operation of circuit. It also can realize the remote control or local control of the start, stop, corotation and inversion of motor. When it is equipped with ammeter, it also can monitor the running of motor and circuit status.

3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

Example diagram for control box use





HRMD92 Explosion-proof distribution equipment for distribution box use

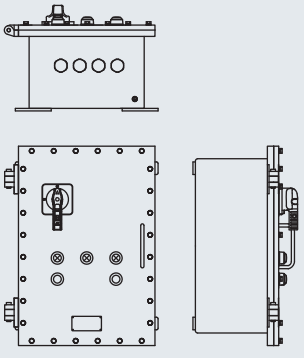
Suitable for power units of distribution system

Note: 1. MCB (Miniature Circuit Breaker) or MCCB (Moulded Case Circuit Breaker), AC contactor, thermal overload relay, PLC programmer, soft starter, HA pushbuttons, HD indicators, HK control switches and BB8050 explosion-proof ammeters/ voltmeters etc. in HRMD92 distribution boxes.

2. HRMD92 power unit can be used for distribution or on-off of circuit. It also can be used for controlling the start, stop, corotation and inversion of motor and provide comprehensive protection for motor. It can be equipped with two-site control or multi-site control.
3. It can be customized in accordance with user's requirements and conforms to the usage limits of conformity certificate. The number of cover components and the Max. number of holes on side can meet the requirements of dissipated power and enclosure mechanical strength.

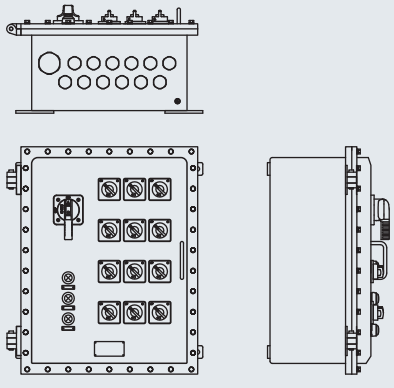
Example diagram for distribution box use





Use for motor starting





Use for illumination (power) distribution

Distribution Boxes

BXM(D)8050 Series Explosion-proof Illumination (Power) Distribution Boxes (Ex d e IIC)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Enclosure for modular combination (Ex e).
- Main switch and branch switch are operated with external rotary actuator.
- Internal wiring to the terminal is finished.
- International brand of explosion-proof terminal.
- Enclosure: GRP (glass fibre-reinforced polyester resin)
- Entries plugged. Cable glands on request (see P7/16).
- Special requirements on request.

Catalogue number logic

BX M(D) 8050 - □/□/□/□

- Main switch current
- K: with main switch (optional)
- Branch current
- Number of branch circuit
- Design No.
- M: illumination D: power
- Explosion-proof distribution boxes

Note

1. Please refer to the Selection table on P6/39~41.
2. Please select internal components as below:
   - BL8060 Series explosion-proof circuit breaker modules on P6/42~46
   - BRT8060 Series explosion-proof fuses on P6/47
   - BDW8060 Series explosion-proof potentiometers on P6/48~49

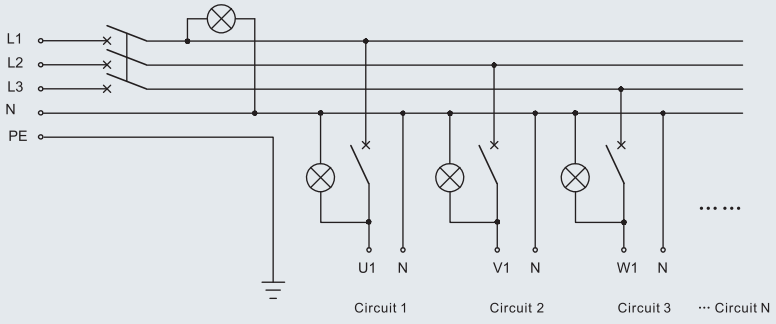
Zones 1&2; 21&22

Technical data

Explosion-proof illumination distribution boxes BXM8050-□/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T5 or T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	EPT 15 ATEX 2265; IECEx CQM 14.0033X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
General power supply	Rated voltage: Max. 690V AC 50/60Hz; Rated current: max.100A
Branch current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A
Exposed fastener	Stainless steel
Enclosure	
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Enclosure colour	Black
Enclosure type	Ex e
Built-in components	
Main switch	BL8060 Please see P6/42
	Note: earth leakage protection on request
Branch switch	BL8060 Please see P6/42
	Note: earth leakage protection on request
Terminal	International brand of explosion-proof terminal
Indicator	Red
Degree of protection	IP66
Ambient temperature	T5 for Tamb: -20℃~+40℃, T4/T80℃ for Tamb: -20℃~+55℃
Cable entries	Standard M□ x 1.5 plug (see the Selection Table on P6/36)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16
Entry direction	Bottom
Mounting	Surface type (standard)

Electrical schematic diagram



BXM8050 Series explosion-proof illumination distribution boxes

Distribution Boxes
BXM8050 Series Explosion-proof Illumination Distribution Boxes (Ex d e IIC)

Selection table of BXM8050 series explosion-proof illumination distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXM8050-4/□/K/□	BL8060 Current max. 100A	4	BL8060 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	3	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM8050-6/□/K/□		6			3	1 x M40 x 1.5 + 6 x M25 x 1.5
BXM8050-8/□/K/□		8			3	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM8050-10/□/K/□		10			3	1 x M40 x 1.5 + 10 x M25 x 1.5
BXM8050-12/□/K/□		12			3	1 x M40 x 1.5 + 12 x M25 x 1.5
BXM8050-4/□	—	4	BL8060 1P/2P	1A 2A 4A 6A 10A 16A 20A 25A 32A On request	3	1 x M40 x 1.5 + 4 x M25 x 1.5
BXM8050-6/□		6			3	1 x M40 x 1.5 + 6 x M25 x 1.5
BXM8050-8/□		8			3	1 x M40 x 1.5 + 8 x M25 x 1.5
BXM8050-10/□		10			3	1 x M40x 1.5 + 10 x M25 x 1.5
BXM8050-12/□		12			3	1 x M40 x 1.5 + 12 x M25 x 1.5

Note

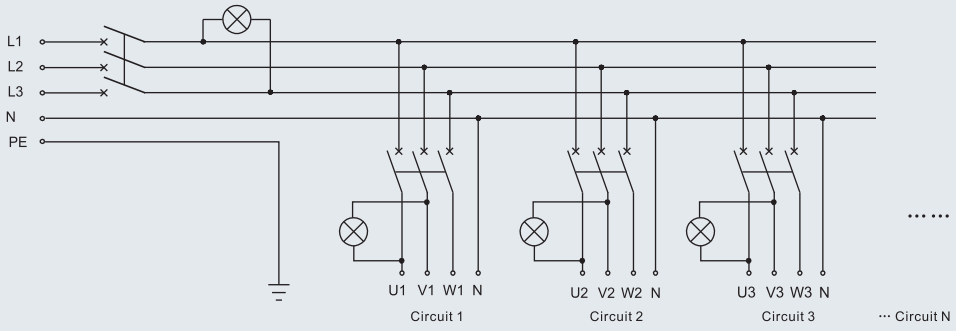
1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

Technical data

Explosion-proof power distribution boxes BXD8050-□/□/□/□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e IIC T5 or T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC T80℃ Db IP66
Certificates	EPT 15 ATEX 2265; IECEx CQM 14.0033X
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
General power supply	Rated voltage: Max.690V AC 50/60Hz; Rated current: max.160A
Branch current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Exposed fastener	Stainless steel
Enclosure	
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Enclosure colour	Black
Enclosure type	Ex e
Built-in components	
Main switch	BL8060 Please see P6/42
	Note: earth leakage protection on request
Branch switch	BL8060 Please see P6/42
	Note: earth leakage protection on request
Terminal	International brand of explosion-proof terminal
Indicator	Red
Degree of protection	IP66
Ambient temperature	T5 for Tamb: -20℃~+40℃, T4/T80℃ for Tamb: -20℃~+55℃
Cable entries	Standard M□ x 1.5 plug (see the Selection table on P6/38)
Cable gland (optional)	DQM-I (Ex e) is recommended. Please see P7/16
Entry direction	Bottom
Mounting	Surface type (standard)

Electrical schematic diagram



BXD8050 Series explosion-proof power distribution boxes

Distribution Boxes
BXD8050 Series Explosion-proof Power Distribution Boxes (Ex d e IIC)

Selection table of BXD8050 series explosion-proof power distribution boxes

Version	Description					Cable entries
	Main switch	Number of branch circuit	Branch switch	Branch current	Number of indicator	
BXD8050-4/□/K/□	BL8060 Current: max. 160A	4	BL8060 3P	1A 2A 4A 6A 10A 16A 20A 25A 32A 40A 50A 63A On request	3	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD8050-6/□/K/□		6			3	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD8050-8/□/K/□		8			3	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD8050-10/□/K/□		10			3	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD8050-12/□/K/□		12			3	1 x M50 x 1.5 + 12 x M25 x 1.5
BXD8050-4/□	—	4	BL8060 3P	1A 2A 4A 6A 10A 16A 20A 25A 32A 40A 50A 63A On request	3	1 x M50 x 1.5 + 4 x M25 x 1.5
BXD8050-6/□		6			3	1 x M50 x 1.5 + 6 x M25 x 1.5
BXD8050-8/□		8			3	1 x M50 x 1.5 + 8 x M25 x 1.5
BXD8050-10/□		10			3	1 x M50 x 1.5 + 10 x M25 x 1.5
BXD8050-12/□		12			3	1 x M50 x 1.5 + 12 x M25 x 1.5

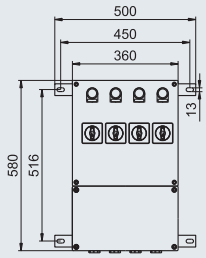
Note

1. Please specify the number and size of cable entries and sides of the enclosure to be fitted.
2. Electrical schematic diagram shall be provided by user. Photo switch, AC contactor, thermal relay or others on request.
3. Please specify mounting type when ordering.
4. Rainproof canopy on request.

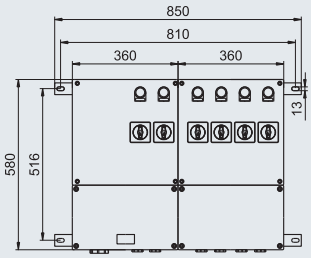
Dimension drawings (all dimensions in mm) - subject to alteration

Note: The following drawings are suitable for:

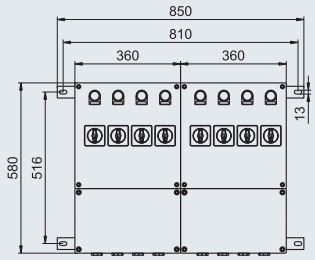
1.BXM8050 main switch 63A, branch switch (1P/2P) without earth leakage protection.
2.BXD8050 main switch 63A, branch switch (3P) without earth leakage protection.
3.BXM8050 main switch 63A, branch switch (1P) with earth leakage protection.



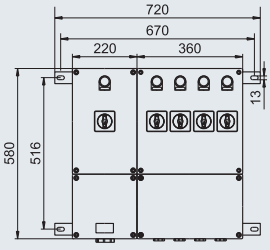
BXM(D)8050-4



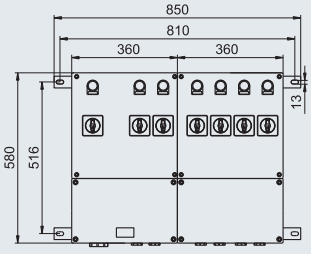
BXM(D)8050-6



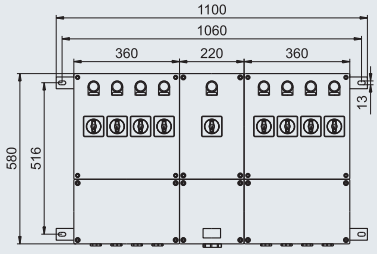
BXM(D)8050-8



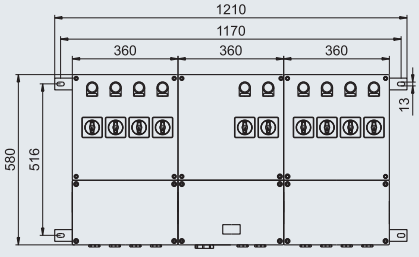
BXM(D)8050-4/K



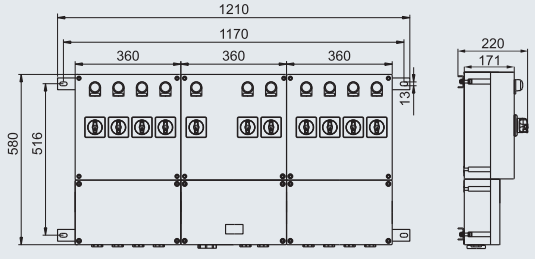
BXM(D)8050-6/K



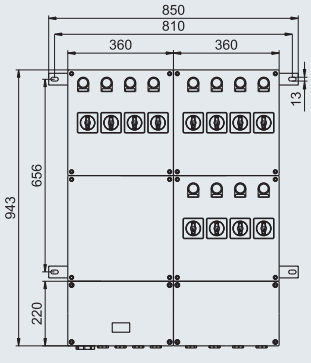
BXM(D)8050-8/K



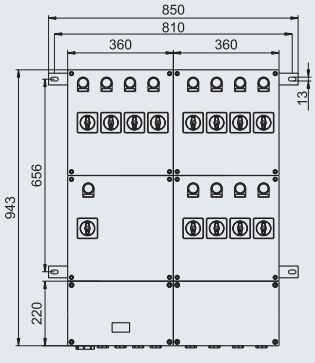
BXM(D)8050-10



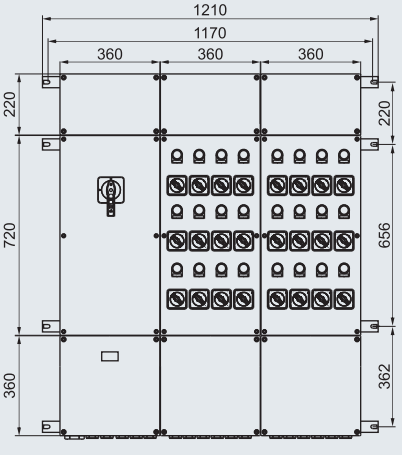
BXM(D)8050-10/K



BXM(D)8050-12



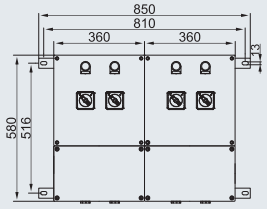
BXM(D)8050-12/K



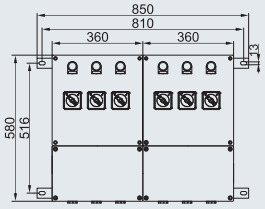
BXM(D)8050-24/K

Dimension drawings (all dimensions in mm) - subject to alteration

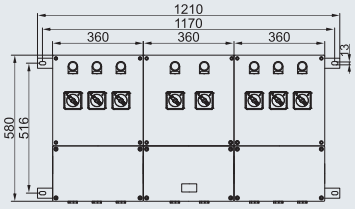
Note: The following drawings are suitable for:
BXM8050 main switch 63A, branch switch (2P) with earth leakage protection.



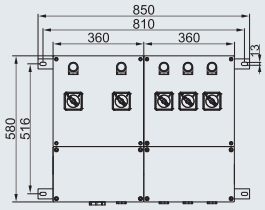
BXM8050-4



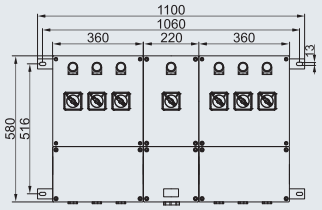
BXM8050-6



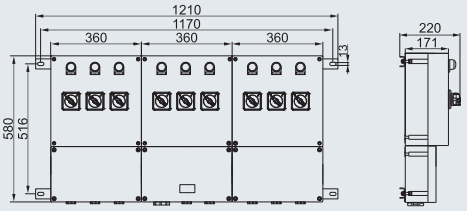
BXM8050-8



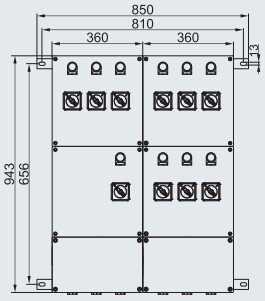
BXM8050-4/K



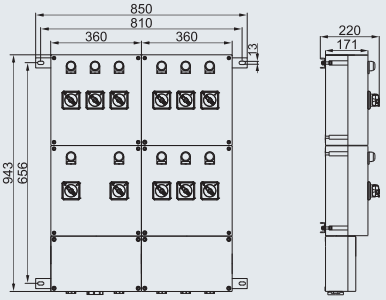
BXM8050-6/K



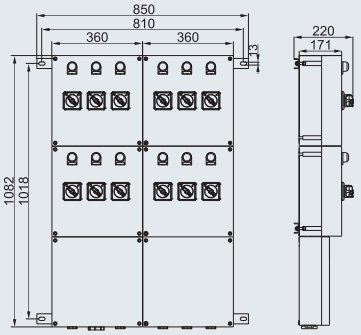
BXM8050-8/K



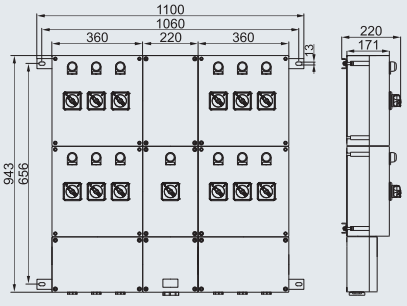
BXM8050-10



BXM8050-10/K



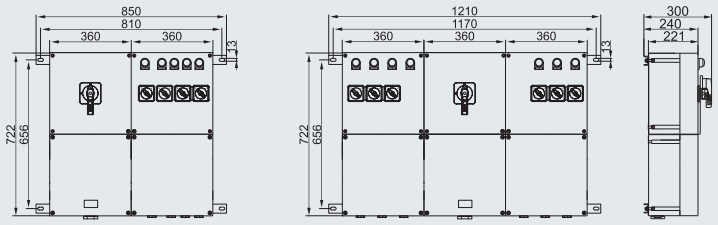
BXM8050-12



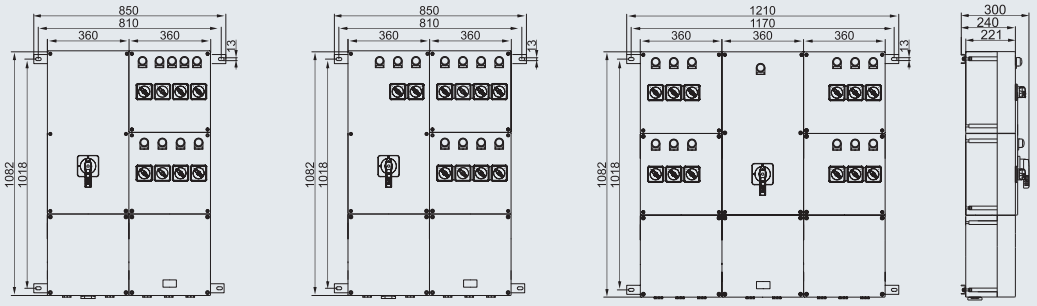
BXM8050-12/K

Dimension drawings (all dimensions in mm) - subject to alteration

Note: The following drawings are suitable for:
BXD8050 main switch: 80A~160A, branch switch (3P) without earth leakage protection.

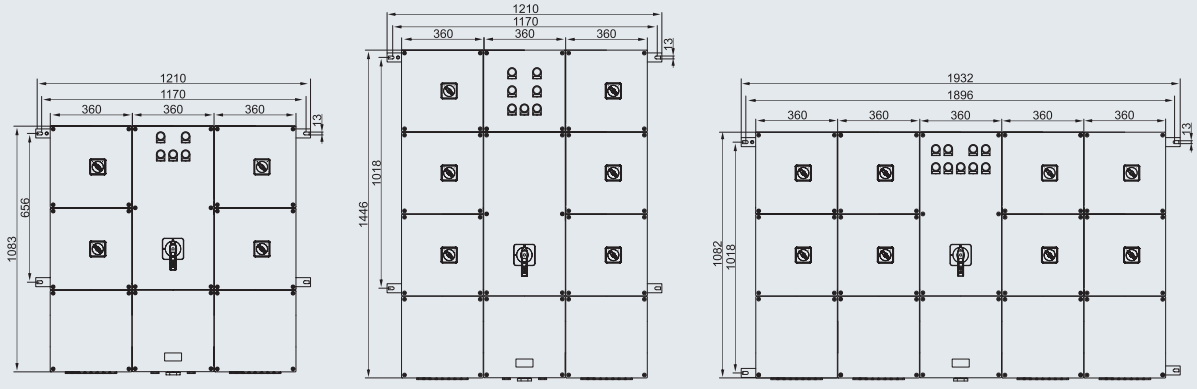


BXD8050-4/K BXD8050-6/K

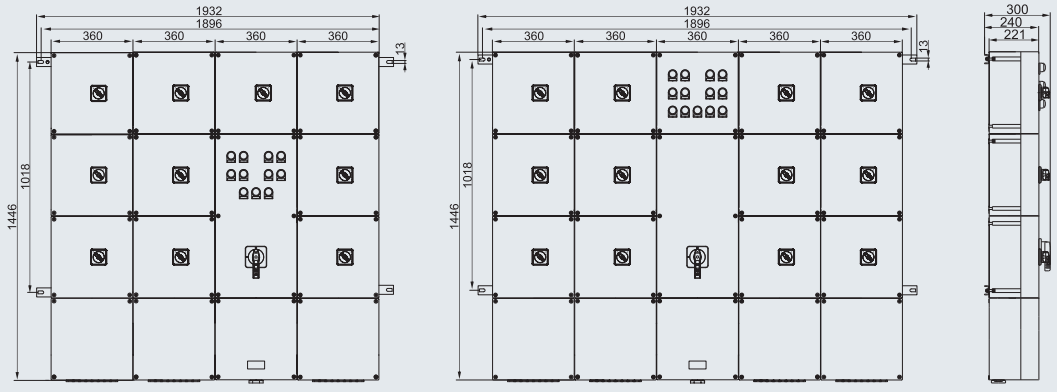


BXD8050-8/K BXD8050-10/K BXD8050-12/K

Note: The following drawings are suitable for:
BXD8050 main switch: 80A~160A, branch switch (3P/4P) with earth leakage protection.



BXD8050-4/K BXD8050-6/K BXD8050-8/K



BXD8050-10/K BXD8050-12/K

Components for Distribution Boxes
BL8060 Series Explosion-proof Circuit Breaker Modules



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Product of flame-proof structure; the cavity is of engineering plastic embedded with high strength metal frame structure; with strong corrosion-proof capacity and reliable performance.
- Built-in Schneider iC65 series MCB, special operation mechanism internally designed, reliable overall operation.

Catalogue number logic

BL 8060 - □ - □ / □ / □ / □ / □ / □

- L: with earth leakage (optional)
- F: with auxiliary (1NO+1NC, optional)
- C: lighting protection
- D: dynamic protection
- Breaking capacity
  - N: 6kA
  - H: 10kA
  - G: 15kA
- Number of pole
- Rated current
- d: noly for “Ex d” type
- Design No.
- Explosion-proof circuit breaker modules

WAROM

Zones 1&2

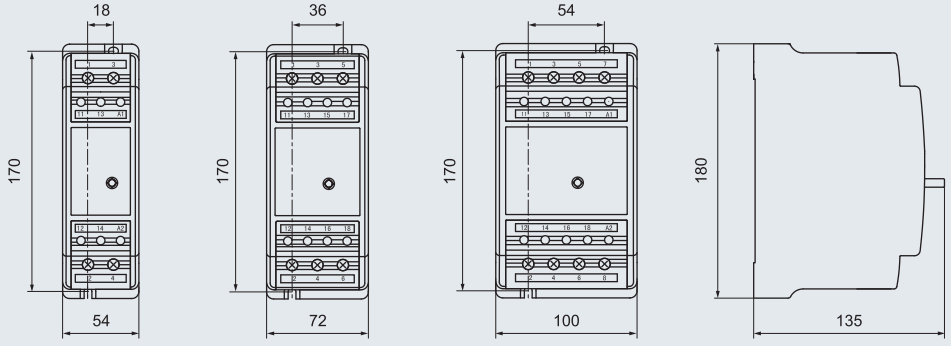
Technical data

Explosion-proof circuit breaker modules BL8060 - □ / □/ □/ □/ □ (≤ 63A)

Explosion protection	Ⓔx II 2 G Ex d e IIC Gb
Certificates	EUT 14 ATEX 1301U; IECEx CQM 14.0031U
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Rated voltage	Max.690V AC
Rated current	1A, 2A, 4A, 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Rated residual operating current	30mA, 300mA, 300mAⓈ Ⓢ:Under–voltage tripping(instant)
Rated residual current characteristics	AC, A
Mechanical life	20000 times
Auxiliary contact	1NO+1NC (indicating contact in OF state)
Number of pole	1P, 2P, 3P, 4P, 1PL, 2PL
Ambient temperature	-20℃~+70℃
Breaking capacity	

Ph.-Ph. (2P, 3P, 4P)		12~133V	220~240V	380~415V	440V	Use breaking
Ph.-N (1P, 1P+N)		12~60V	100~133V	220~240V	-	capacity
Rated current	1~4A	50kA	50kA	50kA	25kA	100%Icu
	6~63A	36kA	20kA	10kA	6kA	75%Icu

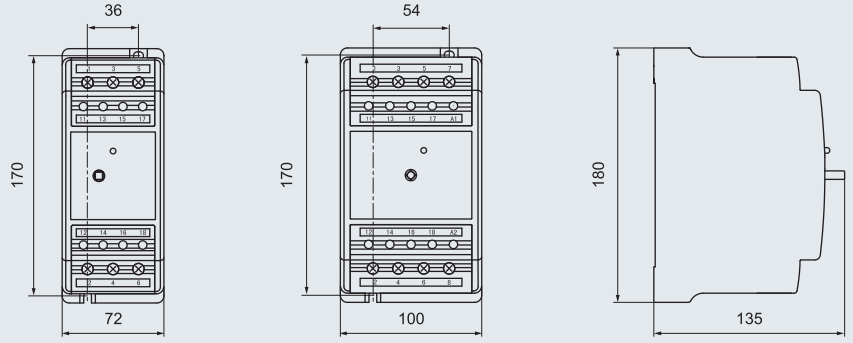
Dimension drawings (all dimensions in mm) - subject to alteration



BL8060-□/1/□/□/□
BL8060-□/1/□/□/F
BL8060-□/2/□/□/□

BL8060-□/2/□/□/F
BL8060-□/3/□/□/□

BL8060-□/3/□/□/F
BL8060-□/4/□/□/□
BL8060-□/4/□/□/F

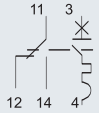
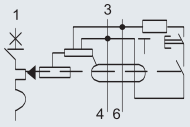
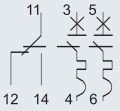
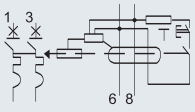
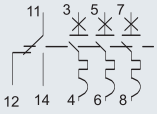
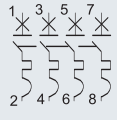
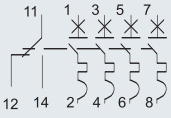


BL8060-□/1/□/□/L

BL8060-□/2/□/□/L

Components for Distribution Boxes
BL8060 Series Explosion-proof Circuit Breaker Modules

Selection table

Version	Rated voltage (V)	Rated current (A)	Rated residual operating current (mA)	Auxiliary contact	Schematic diagram
BL8060-□/1/□/□/□	230/440/690	1, 2, 4, 6, 10 16, 20, 25, 32 40, 50, 63	/	/	
BL8060-□/1/□/□/F	230/440/690		/	Indicating contact in OF state	
BL8060-□/1/□/□/L	230/440/690	40, 63	30	/	
BL8060-□/2/□/□/□	230/440/690	1, 2, 4, 6, 10 16, 20, 25, 32 40, 50, 63	/	/	
BL8060-□/2/□/□/F	230/440/690		/	Indicating contact in OF state	
BL8060-□/2/□/□/L	230/440/690	40	30	/	
			300	/	
			300 S	/	
		63	30	/	
			300	/	
			300 S	/	
BL8060-□/3/□/□/□	230/440/690	1, 2, 4, 6, 10 16, 20, 25, 32 40, 50, 63	/	/	
BL8060-□/3/□/□/F	230/440/690		/	Indicating contact in OF state	
BL8060-□/4/□/□/□	230/440/690		/	/	
BL8060-□/4/□/□/F	230/440/690		/	Indicating contact in OF state	

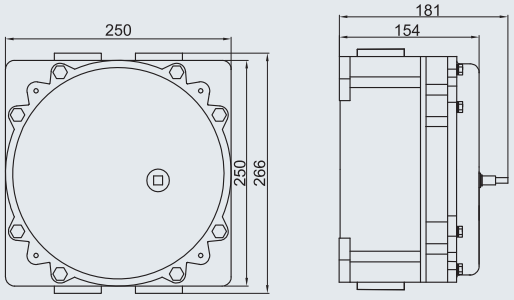
Technical data

Explosion-proof circuit breaker modules BL8060-d - □ / □/ □/ □/ □

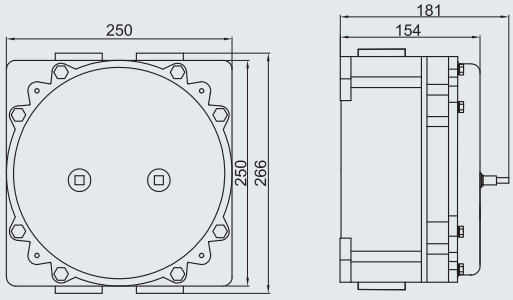
Explosion protection	Ⓔx II 2 G Ex db IIC Gb
Certificates	EPT 15 ATEX 2252U; IECEx CQM 15.0016U
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Enclosure material	Copper-free aluminium, powder coated surface
Rated voltage	Max.690V AC
Rated current	Max.160A
Rated residual operating current	30mA, 300mA, 300mAⓈ Ⓢ:Under–voltage tripping(instant)
Rated residual current characteristics	AC, A
Mechanical life	20000 times
Auxiliary contact	1NO+1NC(Indicating contact in OF state)
Number of pole	1P, 2P, 3P, 4P 1PL, 2PL, 3PL, 4PL (≤ 63A)
Ambient temperature	-20℃~+70℃
Breaking capacity	

Ph.-Ph. (3P, 4P)		220~230V	380~415V	440V	500V	690V	Use breaking capacity
Rated current	63A	20kA	10kA	6kA	-	-	75%Icu
	80~160A	120kA	85kA	75kA	50kA	10kA	100%Icu

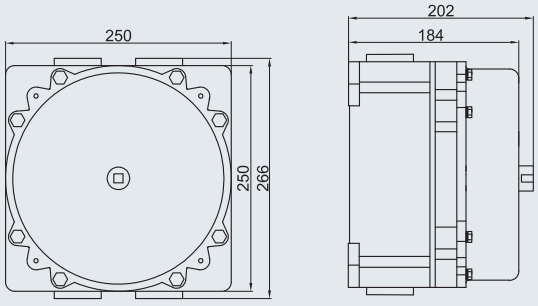
Dimension drawings (all dimensions in mm) - subject to alteration



BL8060-d-□/1/□/□/L; BL8060-d-□/2/□/□/L
BL8060-d-□/3/□/□/L; BL8060-d-□/4/□/□/L
(≤ 63A)



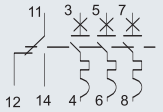
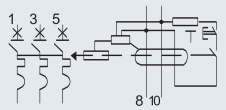
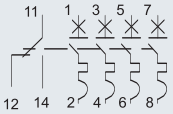
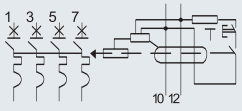
BL8060-d-□/1/□/□/L; BL8060-d-□/2/□/□/L
BL8060-d-□/1/□/□; BL8060-d-□/2/□/□
BL8060-d-□/3/□/□; BL8060-d-□/4/□/□
(≤ 63A)



BL8060-d-□/3/□/□; BL8060-d-□/4/□/□
(80A~160A)

Components for Distribution Boxes
BL8060 Series Explosion-proof Circuit Breaker Modules

Selection table

Version	Rated voltage (V)	Rated current (A)	Rated residual operating current (mA)	Auxiliary contact	Schematic diagram
BL8060-d-□/3/□/□/□	230/440/690	63, 80, 100, 125, 160	/	/	
BL8060-d-□/3/□/□/F	230/440/690		/	Indicating contact in OF state	
BL8060-d-□/3/□/□/L	230/440/690	63	30		
			300	/	
			300 Ⓢ		
BL8060-d-□/4/□/□/□	230/440/690	63, 80, 100, 125, 160	/	/	
BL8060-d-□/4/□/□/F	230/440/690		/	Indicating contact in OF state	
BL8060-d-□/4/□/□/L	230/440/690	63	30	/	
			300	/	
			300 Ⓢ	/	

Components for Distribution Boxes
BRT8060 Series Explosion-proof Fuses

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D



Catalogue number logic

BRT 8060 - □

- Rated current
- Design No.
- Explosion-proof fuses

Technical data

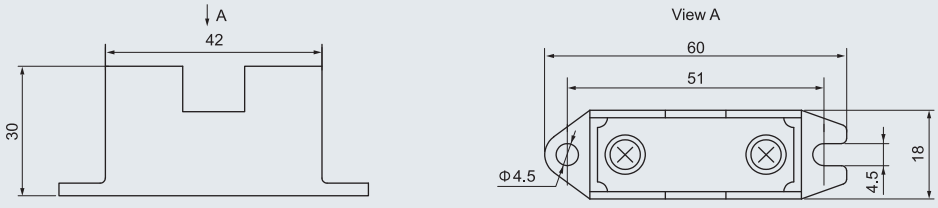
Explosion−proof fuses BRT8060 - □

Explosion protection	Ⓔx II 2 G Ex e mb IIC Gb
Certificates	ATEX and IECEx (applied for); PCEC (China)
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-18 IEC 60079-0, IEC 60079-7, IEC 60079-18
Enclosure material	PC
Rated voltage	230V AC, 400V AC, 500V AC
Rated current	1A, 2A, 4A, 6A, 8A, 10A
Ambient temperature	-20℃~+70℃

Selection table

Version	Rated voltage (V)	Rated current (A)
BRT8060 - 1	230 400 500	1
BRT8060 - 2		2
BRT8060 - 4		4
BRT8060 - 6		6
BRT8060 - 8		8
BRT8060 - 10		10

Dimension drawings (all dimensions in mm) - subject to alteration



Zones 1&2

Components for Distribution Boxes
BDW8060 Series Explosion-proof Potentiometers



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Product of flame-proof structure; enclosure formed of high strength polycarbonate injection; with good corrosion-proof capacity and reliable performance.
- Built-in wire-wound potentiometer.

Catalogue number logic

BDW 8060 - □

- Maximum impedance
- Design No.
- Explosion-proof potentiometers

WAROM

Zones 1&2

Technical data

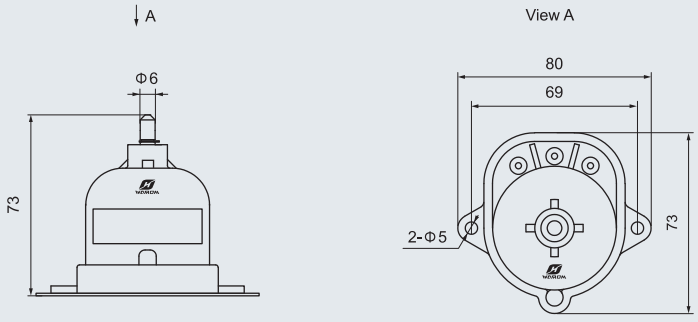
Explosion-proof potentiometers BDW8060 - □

Explosion protection	Ⓔx II 2 G Ex d e IIC Gb
Certificates	ATEX and IECEx (applied for); PCEC (China)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Enclosure material	PC (polycarbonate)
Rated voltage	230V AC
Rated power	1.5W, 3W
Minimum impedance	10Ω (1.5W), 22Ω (3W)
Maximum impedance	10kΩ (1.5W), 47kΩ (3W)
Rotation angle	300°
Linearity	±5%~±10%
Deviation of impedance	±5%~±10%
Life of rotation	10,000 circles
Ambient temperature	-20℃~+70℃

Selection table

Version	Rated voltage (V)	Rated power (W)	Minimum impedance (Ω)	Maximum impedance (kΩ)
BDW8060 - □	230	1.5	10	10
BDW8060 - □	230	3	22	47

Dimension drawings (all dimensions in mm) - subject to alteration



Empty Enclosures

BXT-□-W Series Explosion-proof Enclosures (Ex d IIB+H2)



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
  Class I, Zone 1 and Zone 2
  Class I, Division 1, Groups C, D
- Flameproof enclosure (Ex d IIB) in aluminium alloy, formed of low pressure casting. 13 versions (external flange).
- Cable entries can be drilled and components can be installed by user on request.
- Safety shall be considered when installing components according to related electrical standards.
- Special requirements on request.

Catalogue number logic

BXT - □ - W

- External flange enclosure
- Specification code(I, II, IIB, III, IIIB, IV, IVB, V, VB, VI, VIB, VII, VIIB)
- Explosion-proof enclosures

Zones 1&2; 21&22

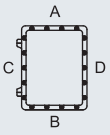
Empty Enclosures
BXT-□-W Series Explosion-proof Enclosures (Ex d IIB+H2)

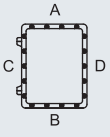
Technical data

Explosion-proof enclosures	BXT-□-W
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIB+H_2 Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	LCIE 11 ATEX 3012U; IECEx CQM 14.0011U RU C-CN.ГБ05.B.00345(CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-31
Degree of protection	IP66, IP67 (optional)
Internal&external earthing	I, II, IIb: M6/M6; III, IIIb, IV, IVb, V, Vb, VI, VIb: M6/M8; VII, VIIb: M8/M8
Ambient temperature	-60℃~+100℃
Enclosure material	Copper-free aluminium, powder coated surface, window grey (RAL7040)
Exposed fastener	Stainless steel
Mounting feet	Carbon steel, power coated surface
Hinge	With hinge

Selection table of BXT-□-W series explosion-proof enclosures (external flange)(all dimensions in mm)

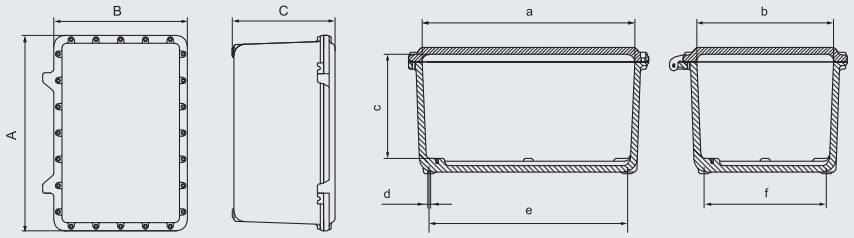
Table of max. number of possible enclosure entries

	I		II		IIB		III		IIIB		IV		IVB	
														
Size	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 x 1.5	5	8	5	10	5	12	10	12	16	20	12	16	22	30
M25 x 1.5	5	7	5	9	5	10	9	11	12	15	11	14	15	20
M32 x 1.5	2	3	2	4	2	6	7	9	9	12	9	12	12	16
M40 x 1.5	2	2	2	3	2	4	3	4	5	6	4	5	6	9
M50 x 1.5	1	2	1	3	1	3	3	3	4	5	3	4	5	7
M63 x 1.5	1	2	1	2	1	3	2	3	2	3	3	3	3	5

	V		VB		VI		VIB		VII		VIIB	
												
Size	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
M20 x 1.5	14	21	24	40	20	35	30	50	30	40	45	65
M25 x 1.5	12	19	18	27	18	30	20	36	26	36	30	44
M32 x 1.5	10	15	14	21	15	26	18	30	20	30	25	36
M40 x 1.5	4	7	8	12	8	13	11	18	10	16	15	21
M50 x 1.5	4	5	5	9	6	11	6	10	8	12	12	12
M63 x 1.5	3	5	4	7	3	5	5	9	4	6	7	10

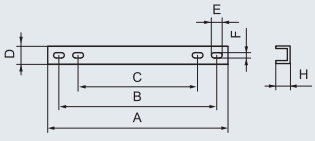
Empty Enclosures
BXT-□-W Series Explosion-proof Enclosures (Ex d IIB+H2)

Selection table of BXT-□-W series explosion-proof enclosures (external flange)(all dimensions in mm)



Enclosure

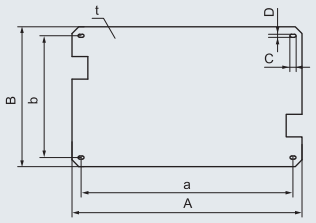
Version	Dimensions									Weight (kg)
	A	a	B	b	C	c	e	f	d	
BXT-I-W	250	192	200	142	170	131	180	130	M8	6.70
BXT-II-W	300	242	200	142	170	131	230	130	M8	8.00
BXT-IIB-W	350	292	200	142	170	131	280	130	M8	9.50
BXT-III-W	350	290	300	240	200	159	280	230	M10	14.50
BXT-IIIB-W	350	290	300	240	270	229	280	230	M10	17.50
BXT-IV-W	450	378	350	278	210	163	365	265	M10	23.00
BXT-IVB-W	450	378	350	278	280	233	365	265	M10	27.50
BXT-V-W	560	488	400	328	210	155	475	315	M10	34.50
BXT-VB-W	560	488	400	328	280	225	475	315	M10	39.50
BXT-VI-W	634	560	434	360	265	205	522	322	M10	46.00
BXT-VIB-W	634	560	434	360	335	275	522	322	M10	52.00
BXT-VII-W	720	640	560	480	275	215	620	460	M12	74.50
BXT-VIIB-W	720	640	560	480	345	285	620	460	M12	83.00



Mounting feet

Version	Dimensions						
	A	B	C	D	E	F	H
BXT-I-W	240	200	130	30	16	10	20
BXT-II-W	240	200	130	30	16	10	20
BXT-IIB-W	240	200	130	30	16	10	20
BXT-III-W	340	300	230	40	24	12	20
BXT-IIIB-W	340	300	230	40	24	12	20
BXT-IV-W	400	350	265	40	24	12	20
BXT-IVB-W	400	350	265	40	24	12	20
BXT-V-W	450	400	315	40	26	14	20
BXT-VB-W	450	400	315	40	26	14	20
BXT-VI-W	480	430	320	40	26	14	20
BXT-VIB-W	480	430	320	40	26	14	20
BXT-VII-W	620	560	460	50	26	14	20
BXT-VIIB-W	620	560	460	50	26	14	20

Selection table of BXT-□-W series explosion-proof enclosures (external flange)(all dimensions in mm)



Mounting plate

Version	Dimensions						
	A	a	B	b	C	D	t
BXT-I-W	170	120	120	70	14	7	2
BXT-II-W	220	170	120	70	14	7	2
BXT-IIB-W	270	220	120	70	14	7	2
BXT-III-W	270	220	220	170	14	7	2
BXT-IIIB-W	270	220	220	170	14	7	2
BXT-IV-W	350	300	250	200	14	7	2
BXT-IVB-W	350	300	250	200	14	7	2
BXT-V-W	450	390	290	230	14	7	2
BXT-VB-W	450	390	290	230	14	7	2
BXT-VI-W	530	470	330	270	14	7	2
BXT-VIB-W	530	470	330	270	14	7	2
BXT-VII-W	600	550	440	390	14	7	2
BXT-VIIB-W	600	550	440	390	14	7	2

Empty Enclosures
BXT-e Series Increased Safety Enclosures (Ex e)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Copper-free aluminium enclosure (Ex e), 8 versions.
- Cable entries can be drilled and components can be installed by user on request.
- Safety shall be considered when installing components according to related electrical standards.
- Special requirements on request.

Catalogue number logic

BXT - e - □

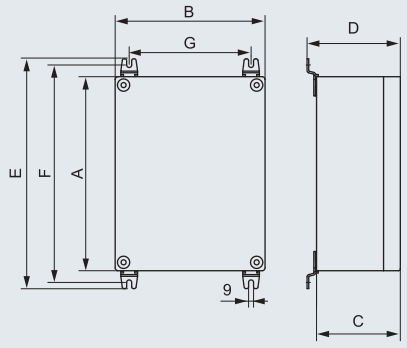
- Specification code (I, II, III, IV, V, VI, VII, VIII)
- Increased safety enclosures

Technical data

Increased safety enclosures	BXT-e-□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex e IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	LCIE 13 ATEX 3053X; IECEx CQM 13.0036U; RU C-CN.ГБ05.B.00345(CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-31
	IEC 60079-0, IEC 60079-7, IEC 60079-31
Degree of protection	IP66
Internal&external earthing	M6/M6
Ambient temperature	-60℃~+100℃
Enclosure material	Copper-free aluminium, powder coated surface, window grey (RAL7040)
Exposed fastener	Stainless steel

Zones 1&2; 21&22

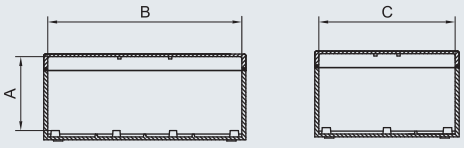
Selection table of BXT-e series increased safety enclosures (all dimensions in mm)



Outline & Installation

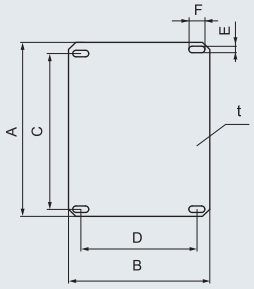
Version	Outline dimensions				Installation dimensions		
	A	B	C	D	E	F	G
BXT-e-I	190	132	127	143	254	232	92
BXT-e-II	190	190	127	143	254	232	150
BXT-e-III	250	190	127	143	314	292	150
BXT-e-IV	250	250	127	143	314	292	210
BXT-e-V	300	200	150	167	364	342	150
BXT-e-VI	300	300	150	167	364	342	250
BXT-e-VII	350	250	150	167	414	392	200
BXT-e-VIII	502	350	150	167	566	544	300

Note: Other dimensions on request



Internal

Version	Dimensions			Weight (kg)
	A	B	C	
BXT-e-I	108	177	120	2.40
BXT-e-II	107	177	177	2.80
BXT-e-III	107	237	177	3.80
BXT-e-IV	107	235	235	5.10
BXT-e-V	130	286	186	5.80
BXT-e-VI	130	286	286	7.10
BXT-e-VII	130	336	236	7.00
BXT-e-VIII	130	488	336	9.50



Mounting plate

Version	Dimensions						
	A	B	C	D	E	F	t
BXT-e-I	173	98	162	40	7	13	2
BXT-e-II	173	117	162	40	7	13	2
BXT-e-III	222	106	200	40	7	13	2
BXT-e-IV	220	160	200	124	7	13	2
BXT-e-V	270	170	210	110	7	13	2
BXT-e-VI	270	270	210	210	7	13	2
BXT-e-VII	320	220	260	160	7	13	2
BXT-e-VIII	470	320	402	260	7	13	2

Empty Enclosures
BXT-S Series Increased Safety Enclosures (Ex e)



- Explosion protection to
  -CENELEC
  -IEC
  -NEC
- Can be used in
  Zone 1 and Zone 2
  Class I, Zone 1 and Zone 2
  Class I, Division 2, Groups A , B, C, D
- Increased-safety enclosure (Ex e) in stainless steel, 7 versions.
- Cable entries can be drilled and components can be installed by user on request.
- Safety shall be considered when installing components according to related electrical standards.
- Special requirements on request.

Catalogue number logic

BXT - S - □

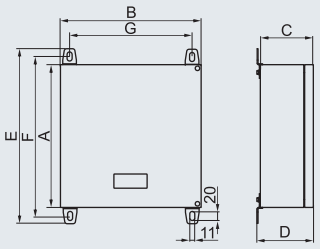
- Specification code (I, II , III, IV, IVB, IVC, V, VB, VI, VIB, VII, VIIB, VIII)
- Stainless steel
- Increased safety enclosures

Technical data

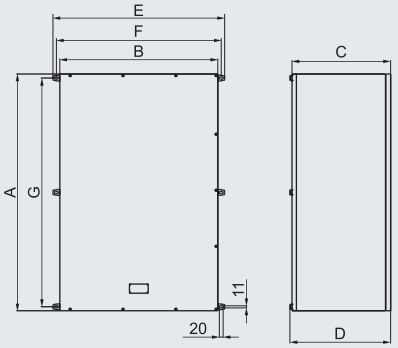
Increased safety enclosures	BXT-S-□
Explosion protection	Ex II 2 G Ex e II Gb
Certificates	LCIE 10 ATEX 3070U; RU C-CN.ГБ05.B.00345(CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7
	IEC 60079-0, IEC 60079-7
Degree of protection	IP66
Internal&external earthing	M6/M6
Ambient temperature	-40℃~+60℃
Enclosure material	Stainless steel
Exposed fastener	Stainless steel

Zones 1&2

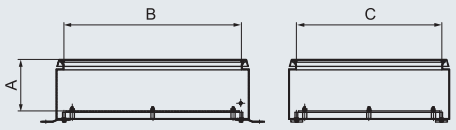
Selection table of BXT-S series increased safety enclosures (all dimensions in mm)

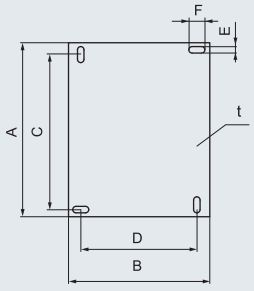


BXT-S-I~BXT-S-VIIb



BXT-S-VIII~BXT-S-VIIIb





Outline & Installation

Version	Outline dimensions				Installation dimensions		
	A	B	C	D	E	F	G
BXT-S-I	120	120	90	100	190	156	80
BXT-S-II	170	150	90	100	260	226	110
BXT-S-III	250	250	150	160	320	286	210
BXT-S-IV	300	300	150	160	370	336	260
BXT-S-IVb	400	300	150	160	470	436	260
BXT-S-IVc	400	300	250	260	470	436	260
BXT-S-V	480	480	150	160	550	516	440
BXT-S-Vb	480	480	250	260	550	516	440
BXT-S-VI	600	500	200	210	670	636	460
BXT-S-VIb	600	500	300	310	670	636	460
BXT-S-VII	860	640	220	230	930	896	600
BXT-S-VIIb	860	640	320	330	930	896	600
BXT-S-VIII	1000	800	300	310	870	836	1160

Note: Other dimensions on request

Internal

Version	Dimensions			Weight (kg)
	A	B	C	
BXT-S-I	60	76	76	2.25
BXT-S-II	60	126	106	3.60
BXT-S-III	120	206	206	7.40
BXT-S-IV	120	243	243	8.70
BXT-S-IVb	120	343	243	11.50
BXT-S-IVc	220	343	250	13.70
BXT-S-V	120	423	423	18.60
BXT-S-Vb	220	423	423	21.70
BXT-S-VI	170	543	443	25.70
BXT-S-VIb	270	543	443	29.20
BXT-S-VII	190	803	583	40.10
BXT-S-VIIb	290	803	583	44.90
BXT-S-VIII	270	743	943	55.40

Mounting plate

Version	Dimensions						
	A	B	C	D	E	F	t
BXT-S-I	80	70	60	52	6	10	2
BXT-S-II	110	90	90	70	6	10	2
BXT-S-III	190	190	160	166	6	10	2
BXT-S-IV	240	240	216	216	6	10	2
BXT-S-IVb	340	240	316	216	6	10	2
BXT-S-IVc	340	240	316	216	6	10	2
BXT-S-V	420	420	390	390	6	10	2
BXT-S-Vb	420	420	390	390	6	10	2
BXT-S-VI	540	440	510	410	6	10	2
BXT-S-VIb	540	440	510	410	6	10	2
BXT-S-VII	800	580	770	550	6	10	2
BXT-S-VIIb	800	580	770	550	6	10	2
BXT-S-VIII	940	740	916	716	6	10	2

Empty Enclosures
BXT8050 Series Explosion-proof Enclosures (Ex e)



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Increased-safety enclosure (Ex e) in GRP; 12 versions.
- Cable entries can be drilled and components can be installed by user on request.
- Safety shall be considered when installing components according to related electrical standards.
- Special requirements on request.

Catalogue number logic

BXT 8050-□

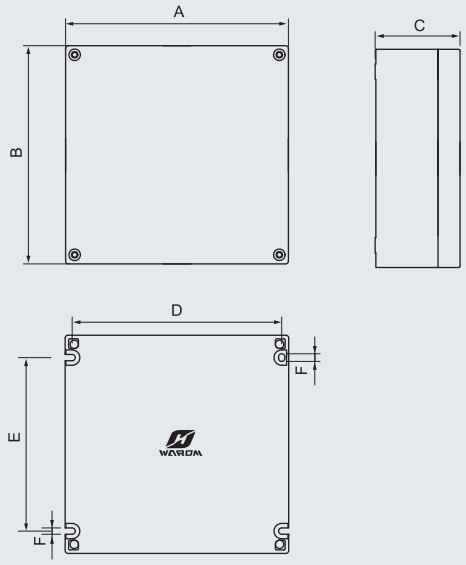
- Specification code (I, II , III, IV, IVB, IVC, V, VB, VC, VI, VII, VIIB)
- Design No.
- Explosion-proof enclosures

Technical data

Explosion-proof enclosures	BXT8050-□
Explosion protection	Ex II 2 G Ex e II
Certificates	LCIE 09 ATEX 3095U
Conformity to standards	EN 60079-0, EN 60079-7
	IEC 60079-0, IEC 60079-7
Degree of protection	IP65
Ambient temperature	-20℃~+60℃
Enclosure material	GRP (glass fibre-reinforced polyester resin)
Exposed fastener	Stainless steel

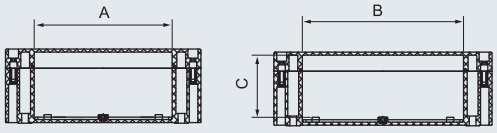
Zones 1&2

Selection table of BXT8050 series explosion-proof enclosures (all dimensions in mm)



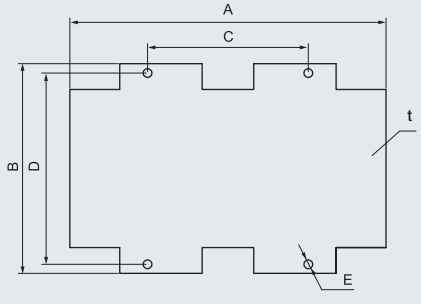
Outline & Installation

Version	Outline dimensions			Installation dimensions		
	A	B	C	D	E	F
BXT8050-I	110	139	98	96	91	6.5
BXT8050-II	130	220	109	116	172	6.5
BXT8050-III	179	260	121	163	200	7
BXT8050-IV	220	360	121	200	296	9
BXT8050-IVB	220	360	171	200	296	9
BXT8050-IVC	220	360	221	200	296	9
BXT8050-V	360	360	121	340	296	9
BXT8050-VB	360	360	171	340	296	9
BXT8050-VC	360	360	221	340	296	9
BXT8050-VI	220	220	121	200	156	9
BXT8050-VII	360	721	171.5	340	656	9
BXT8050-VIIB	360	721	230	340	656	9



Internal

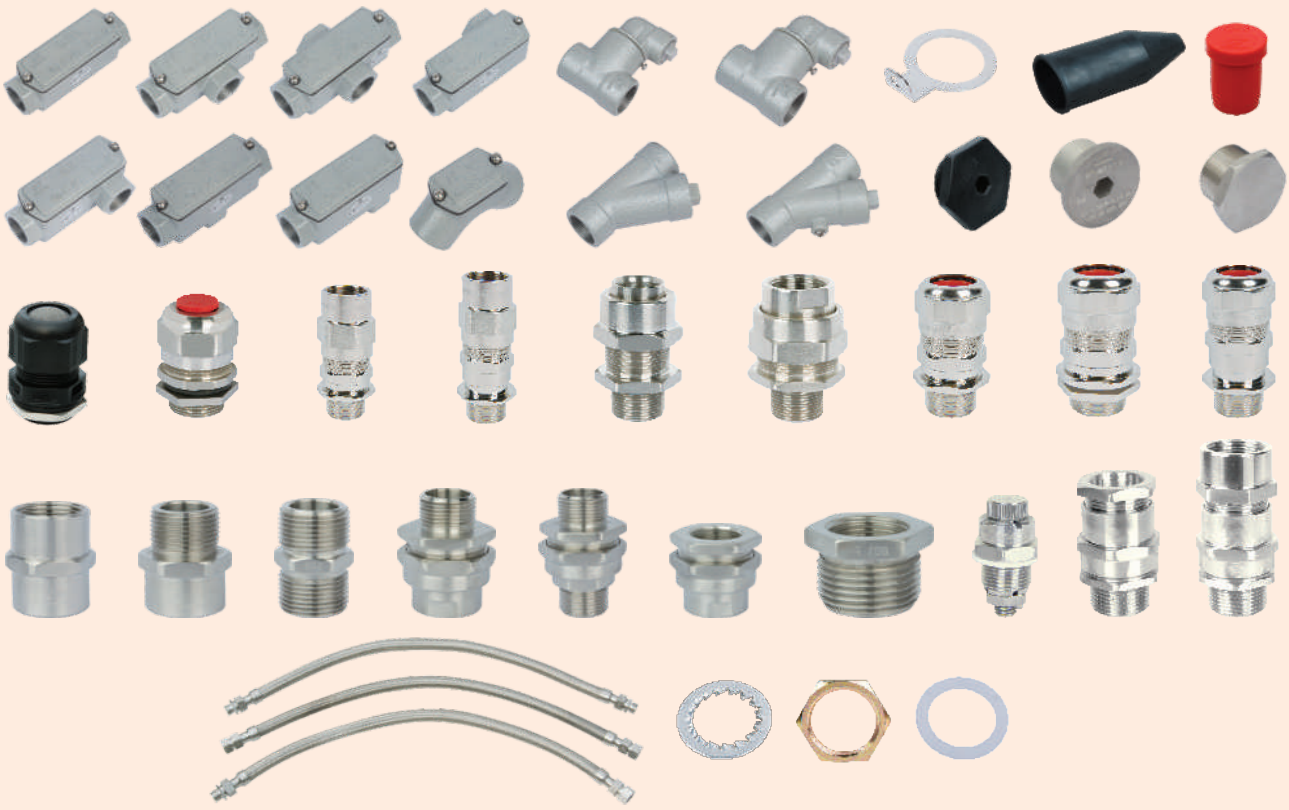
Version	Dimensions			Weight (kg)
	A	B	C	
BXT8050-I	67	74	81	0.80
BXT8050-II	94	148	90	1.30
BXT8050-III	130	174	102	2.10
BXT8050-IV	169	266	102	3.25
BXT8050-IVB	169	266	152	3.85
BXT8050-IVC	169	266	202	4.35
BXT8050-V	266	309	102	4.25
BXT8050-VB	266	309	152	5.05
BXT8050-VC	266	309	202	5.75
BXT8050-VI	126	208	102	2.15
BXT8050-VII	300	621	152	14.55
BXT8050-VIIB	300	621	205	16.75



Mounting plate

Version	Dimensions					
	A	B	C	D	E	t
BXT8050-I	123	94	100	-	Φ6	2
BXT8050-II	204	114	190	-	Φ7	2
BXT8050-III	240	159	122	145	Φ7	2
BXT8050-IV	322	188	282	142	Φ7	2
BXT8050-V	332	316	282	282	Φ7	2
BXT8050-VI	175	175	142	142	Φ7	2
BXT8050-VII	667	296	643	282	Φ7	2

7



Cable Glands and Bushings

Contents

Accessories for Installation

BHC Series Explosion-proof Aluminium Alloy Bushings (Ex e) 7/2
BHC Series Explosion-proof Cast Iron Bushings (Ex e) 7/5
BGJ Series Explosion-proof Connectors (Ex d IIC Ex e IIC) 7/8
BAG Series Explosion-proof Seal Bushings (Ex d IIC Ex e IIC) 7/12

Cable Glands

DQM-I Series Explosion-proof Cable Glands (Ex e IIC) 7/16
DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC) 7/20
DQM-III Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC) 7/26

Flexible Conduits

BNG Series Stainless Steel Explosion-proof Flexible Conduits (Ex d IIC) 7/30

Accessories 7/32

More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

Accessories for Installation
BHC Series Explosion-proof Aluminium Alloy Bushings



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Ex e enclosure, copper-free aluminium, powder coated surface.
- Widely used for connection in steel pipe wiring system.

Catalogue number logic

BHC - □ □ □

- Size
- Thread
  - M: Metric thread
  - NPT: NPT thread
  - G: Pipe thread
- Type: A, B, C, D, E, F, G, H
- Explosion-proof bushings

Technical data

Explosion-proof aluminium alloy bushings BHC-□□□

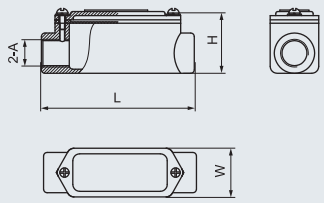
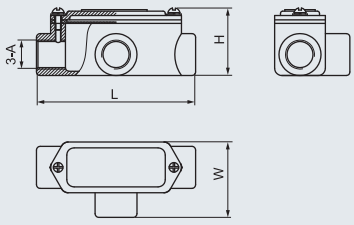
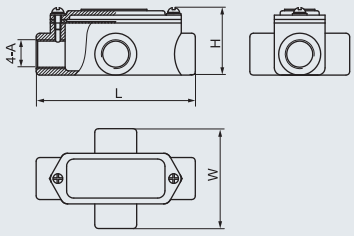
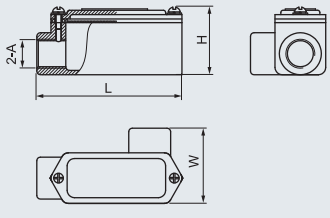
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex e IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	LCIE 06 ATEX 6017; IECEx LCI 08.0004; RU C-CN.ГБ08.B.00927(CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface.
Enclosure colour	Window grey (RAL7040)
Degree of protection	IP66
Ambient temperature	-60℃~+100℃
Type	A, B, C, D, E, F, G, H
Connection thread	1. Metric thread is standard type; G thread or NPT thread is optional. 2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Note: M75, M90, M115 equivalent G thread and NPT thread can be customized.

Zones 1&2; 21&22

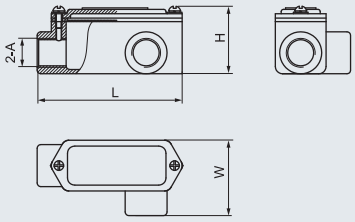
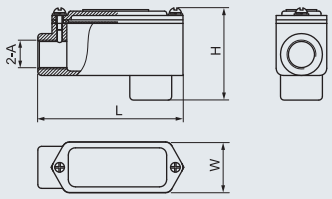
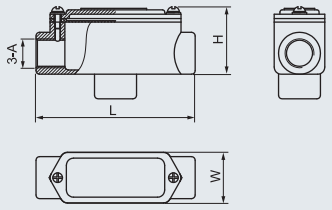
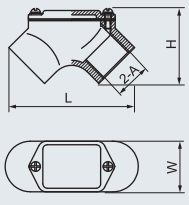
Accessories for Installation
BHC Series Explosion-proof Aluminium Alloy Bushings

Selection table

Version	Female thread "A"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	W	H	L		
 Type A	M20	1/2"	1/2"	35	45	110	701001	0.15
	M25	3/4"	3/4"	38	49	118	701002	0.20
	M32	1"	1"	45	54	145	701003	0.35
	M40	1 1/4"	1 1/4"	54	65	170	701004	0.50
	M50	1 1/2"	1 1/2"	60	71	176	701005	0.60
	M63	2"	2"	72	83	204	701006	0.65
 Type B	M20	1/2"	1/2"	52	45	110	701007	0.20
	M25	3/4"	3/4"	55	49	118	701008	0.20
	M32	1"	1"	63.5	54	145	701009	0.35
	M40	1 1/4"	1 1/4"	71	65	170	701010	0.50
	M50	1 1/2"	1 1/2"	80	71	176	701011	0.65
	M63	2"	2"	93.5	83	204	701012	1.20
 Type C	M20	1/2"	1/2"	69	45	110	701013	0.20
	M25	3/4"	3/4"	72	49	118	701014	0.25
	M32	1"	1"	80	54	145	701015	0.40
	M40	1 1/4"	1 1/4"	88	65	170	701016	0.55
	M50	1 1/2"	1 1/2"	100	71	176	701017	0.65
	M63	2"	2"	115	83	204	701018	1.20
 Type D	M20	1/2"	1/2"	52	45	101	701019	0.20
	M25	3/4"	3/4"	55	49	108	701020	0.20
	M32	1"	1"	63	54	135	701021	0.35
	M40	1 1/4"	1 1/4"	71	65	162.5	701022	0.50
	M50	1 1/2"	1 1/2"	80	71	165.5	701023	0.60
	M63	2"	2"	93.5	83	194.5	701024	1.20

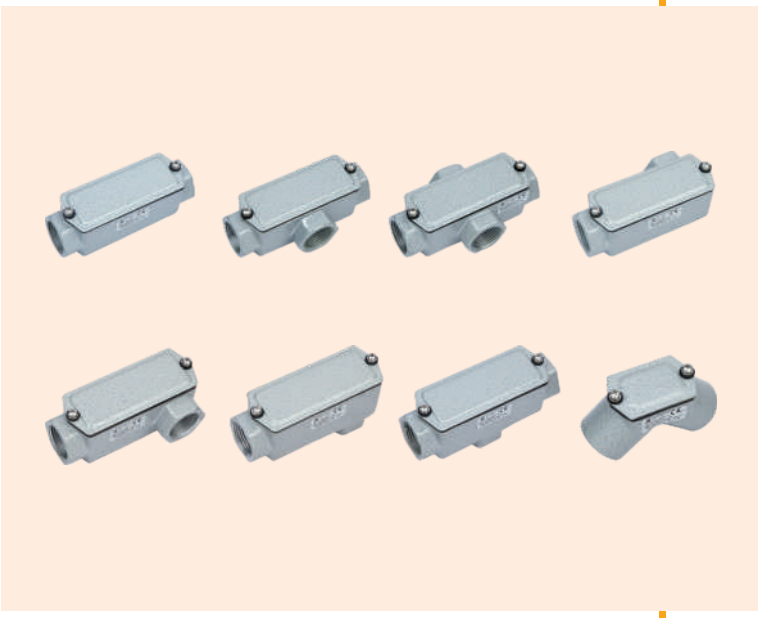
Accessories for Installation
BHC Series Explosion-proof Aluminium Alloy Bushings

Selection table

Version	Female thread "A"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	W	H	L		
 Type E	M20	1/2"	1/2"	52	45	101	701025	0.20
	M25	3/4"	3/4"	55	49	108	701026	0.20
	M32	1"	1"	63	54	135	701027	0.35
	M40	1 1/4"	1 1/4"	71	65	162.5	701028	0.50
	M50	1 1/2"	1 1/2"	80	71	165.5	701029	0.60
	M63	2"	2"	93.5	83	194.5	701030	1.20
 Type F	M20	1/2"	1/2"	35	62	101	701031	0.20
	M25	3/4"	3/4"	38	66	108	701032	0.20
	M32	1"	1"	46	71	135	701033	0.50
	M40	1 1/4"	1 1/4"	54	82	162.5	701034	0.50
	M50	1 1/2"	1 1/2"	60	91	165.5	701035	0.60
	M63	2"	2"	72	104	194.5	701036	1.15
 Type G	M20	1/2"	1/2"	35	62	110	701037	0.20
	M25	3/4"	3/4"	38	66	118	701038	0.20
	M32	1"	1"	46	71	145	701039	0.35
	M40	1 1/4"	1 1/4"	54	82	170	701040	0.50
	M50	1 1/2"	1 1/2"	60	91	176	701041	0.60
	M63	2"	2"	72	104	204	701042	1.20
 Type H	M20	1/2"	1/2"	30	51	84	701043	0.10
	M25	3/4"	3/4"	35	53	89	701044	0.15
	M32	1"	1"	41	64	108	701045	0.25
	M40	1 1/4"	1 1/4"	51	69	116	701046	0.25
	M50	1 1/2"	1 1/2"	57	76	130	701047	0.35
	M63	2"	2"	70	95	168	701048	0.55

Accessories for Installation
BHC Series Explosion-proof Cast Iron Bushings

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Ex e enclosure, cast iron, powder coated surface.
- Widely used for connection in steel pipe wiring system.



Catalogue number logic

BHC - □ □ □

- Size
- Thread
  - M: Metric thread
  - NPT: NPT thread
  - G: Pipe thread
- Type: A, B, C, D, E, F, G, H
- Explosion-proof bushings

Technical data

Explosion-proof cast iron bushings BHC-□□□

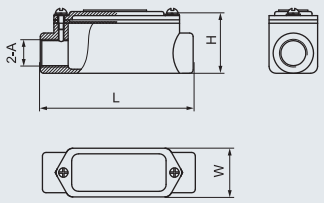
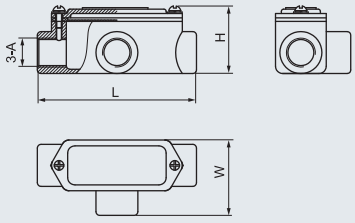
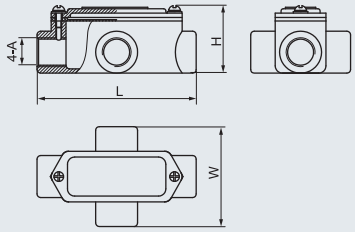
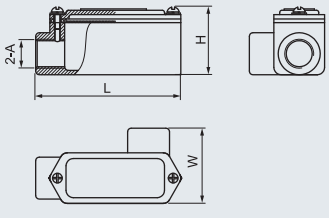
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex e IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	LCIE 06 ATEX 6017; IECEx LCI 08.0004; RU C-CN.ГБ08.B.00927(CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-31
Enclosure material	Cast iron, powder coated surface.
Enclosure colour	Window grey (RAL7040)
Degree of protection	IP66
Ambient temperature	-60℃~+100℃
Type	A, B, C, D, E, F, G, H
Connection thread	1. Metric thread is standard type; G thread or NPT thread is optional. 2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Note：M75, M90, M115 equivalent G thread and NPT thread can be customized.

Zones 1&2; 21&22

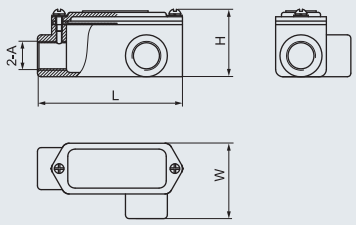
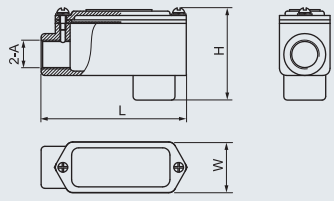
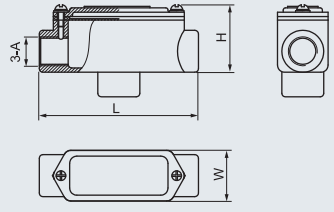
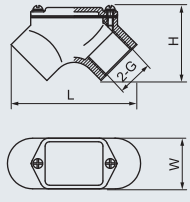
Accessories for Installation
BHC Series Explosion-proof Cast Iron Bushings

Selection table

Version	Female thread "A"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	W	H	L		
 Type A	M20	1/2"	1/2"	31	37	106	702001	0.55
	M25	3/4"	3/4"	35	42	120	702002	0.65
	M32	1"	1"	44	52	138	702003	0.85
	M40	1 1/4"	1 1/4"	53	62	164	702004	1.25
	M50	1 1/2"	1 1/2"	60	67	175	702005	1.50
	M63	2"	2"	75	82	200	702006	2.65
 Type B	M20	1/2"	1/2"	45	37	106	702007	0.60
	M25	3/4"	3/4"	50	42	120	702008	0.75
	M32	1"	1"	60	52	138	702009	1.00
	M40	1 1/4"	1 1/4"	73	62	164	702010	1.30
	M50	1 1/2"	1 1/2"	80	67	175	702011	1.60
	M63	2"	2"	95	82	200	702012	2.85
 Type C	M20	1/2"	1/2"	59	37	106	702013	0.65
	M25	3/4"	3/4"	65	42	120	702014	0.80
	M32	1"	1"	76	52	138	702015	1.15
	M40	1 1/4"	1 1/4"	93	62	164	702016	1.40
	M50	1 1/2"	1 1/2"	100	67	175	702017	1.70
	M63	2"	2"	115	82	200	702018	2.80
 Type D	M20	1/2"	1/2"	45	37	98.5	702019	0.55
	M25	3/4"	3/4"	50	42	110	702020	0.75
	M32	1"	1"	60	52	126	702021	0.85
	M40	1 1/4"	1 1/4"	73	62	149	702022	1.25
	M50	1 1/2"	1 1/2"	80	67	159	702023	1.55
	M63	2"	2"	95	82	183.5	702024	3.00

Accessories for Installation
BHC Series Explosion-proof Cast Iron Bushings

Selection table

Version	Female thread "A"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	W	H	L		
 Type E	M20	1/2"	1/2"	45	37	98.5	702025	0.55
	M25	3/4"	3/4"	50	42	110	702026	0.75
	M32	1"	1"	60	52	126	702027	0.90
	M40	1 1/4"	1 1/4"	73	62	149	702028	1.25
	M50	1 1/2"	1 1/2"	80	67	159	702029	1.65
	M63	2"	2"	95	82	183.5	702030	2.50
 Type F	M20	1/2"	1/2"	31	41	98.5	702031	0.55
	M25	3/4"	3/4"	35	57	110	702032	0.65
	M32	1"	1"	44	68	126	702033	0.95
	M40	1 1/4"	1 1/4"	53	82	149	702034	1.25
	M50	1 1/2"	1 1/2"	60	87	159	702035	1.55
	M63	2"	2"	75	102	183.5	702036	2.85
 Type G	M20	1/2"	1/2"	31	41	106	702037	0.55
	M25	3/4"	3/4"	35	57	120	702038	0.70
	M32	1"	1"	44	68	138	702039	0.95
	M40	1 1/4"	1 1/4"	53	82	164	702040	1.25
	M50	1 1/2"	1 1/2"	60	87	185	702041	1.25
	M63	2"	2"	75	102	200	702042	2.75
 Type H	M20	1/2"	1/2"	28	46	84	702043	0.30
	M25	3/4"	3/4"	33	50	86	702044	0.30
	M32	1"	1"	40	58	99	702045	0.45
	M40	1 1/4"	1 1/4"	48	78	122	702046	0.65
	M50	1 1/2"	1 1/2"	56	82	129	702047	0.80
	M63	2"	2"	69	78	158	702048	1.55

Accessories for Installation
BGJ Series Explosion-proof Connectors



- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Available in nickel plated brass, stainless steel or galvanized carbon steel.

Catalogue number logic

BGJ - □ □ □ (□)/□ □ (□)

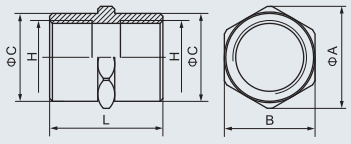
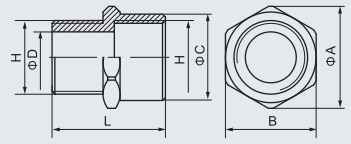
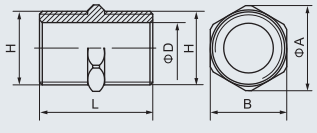
- (□): M: Male thread; F: Female thread
- □: Size
- □: Thread — M: Metric thread; NPT: NPT thread; G: Pipe thread
- (□): M: Male thread; F: Female thread
- □: Size
- □: Thread — M: Metric thread; NPT: NPT thread; G: Pipe thread
- □: Function — I: Pipe connector; II: Reducer; III: Connector
- BGJ: Explosion-proof connectors

Technical data

Explosion-proof connectors	BGJ-□□□(□)/□□(□)
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC Gb Ⓔx II 2 G Ex e IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	LCIE 06 ATEX 6018; IECEx LCI 08.0005; RU C-CN.ГБ08.B.00927 (CU-TR) KZ.7500525.22.01.00375 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Mterial	Nickel plated brass, stainless steel or galvanized carbon steel
Degree of protection	IP66
Ambient temperature	-60℃~+100℃
Type	F/F, M/F or M/M
Function	Pipe connector, reducer, connector

Zones 1&2; 21&22

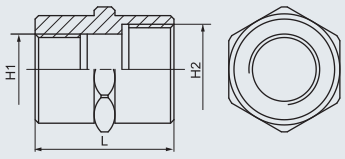
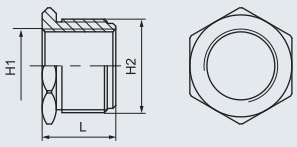
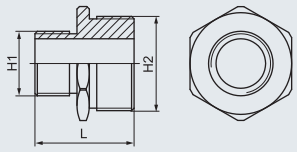
Selection table

Version	Female thread "H"			Dimensions (mm)					Ordering code	Weight (kg)
	Metric	NPT	G	A	B	C	D	L		
 BGJ-I□□(F)/□□(F)	M20	1/2"	1/2"	30	27	25		34	703001	0.10
	M25	3/4"	3/4"	36	32	31		34	703002	0.10
	M32	1"	1"	42	38	37		40	703003	0.15
	M40	1 1/4"	1 1/4"	52	47	46		40	703004	0.25
	M50	1 1/2"	1 1/2"	60	55	54		40	703005	0.25
	M63	2"	2"	72	68	65		42	703006	0.35
	M75	2 1/2"	2 1/2"	88	83	82		42	703007	0.50
	M90	3"	3"	100	95	94		42	703008	0.65
	M115	4"	4"	127	122	121		42	703009	1.00
 BGJ-I□□(M)/□□(F)	M20	1/2"	1/2"	30	27	25	13	36	703010	0.10
	M25	3/4"	3/4"	36	32	31	18	36	703011	0.10
	M32	1"	1"	42	38	37	25	42	703012	0.15
	M40	1 1/4"	1 1/4"	52	47	46	32	42	703013	0.20
	M50	1 1/2"	1 1/2"	60	55	54	38	42	703014	0.25
	M63	2"	2"	72	68	65	50	44	703015	0.35
	M75	2 1/2"	2 1/2"	88	83	82	65	44	703016	0.50
	M90	3"	3"	100	95	94	75	44	703017	0.65
	M115	4"	4"	127	122	121	100	44	703018	1.00
 BGJ-I□□(M)/□□(M)	M20	1/2"	1/2"	30	27		13	36	703019	0.05
	M25	3/4"	3/4"	36	32		18	36	703020	0.10
	M32	1"	1"	42	38		24	42	703021	0.15
	M40	1 1/4"	1 1/4"	52	47		32	42	703022	0.25
	M50	1 1/2"	1 1/2"	60	55		38	42	703023	0.25
	M63	2"	2"	72	68		50	42	703024	0.35
	M75	2 1/2"	2 1/2"	88	83		65	42	703025	0.50
	M90	3"	3"	100	95		75	44	703026	0.65
	M115	4"	4"	127	122		100	44	703027	1.00

Note: 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional.
Above weight is based upon galvanized carbon steel.
2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

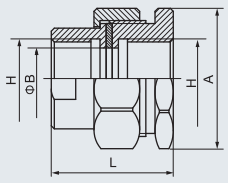
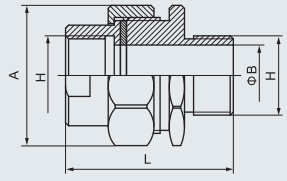
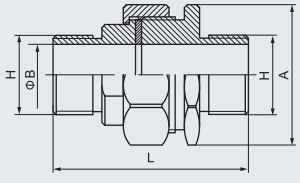
Accessories for Installation
BGJ Series Explosion-proof Connectors

Selection table

Version	Female thread "H1"			Female thread "H2"			Dimensions (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Metric	NPT	G	L		
 BGJ-II□□(F)/□□(F)	M20	1/2"	1/2"	M25	3/4"	3/4"	34	703028	0.10
	M25	3/4"	3/4"	M32	1"	1"	34	703029	0.15
	M32	1"	1"	M40	1 1/4"	1 1/4"	40	703030	0.25
	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	40	703031	0.30
	M50	1 1/2"	1 1/2"	M63	2"	2"	40	703032	0.35
	M63	2"	2"	M75	2 1/2"	2 1/2"	42	703033	0.50
	M75	2 1/2"	2 1/2"	M90	3"	3"	42	703034	0.65
	M90	3"	3"	M115	4"	4"	42	703035	1.00
 BGJ-II□□(M)/□□(F)	M20	1/2"	1/2"	M25	3/4"	3/4"	24	703036	0.05
	M25	3/4"	3/4"	M32	1"	1"	24	703037	0.10
	M32	1"	1"	M40	1 1/4"	1 1/4"	34	703038	0.25
	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	30	703039	0.45
	M50	1 1/2"	1 1/2"	M63	2"	2"	33	703040	0.60
	M63	2"	2"	M75	2 1/2"	2 1/2"	33	703041	0.75
	M75	2 1/2"	2 1/2"	M90	3"	3"	33	703042	0.90
	M90	3"	3"	M115	4"	4"	33	703043	1.20
 BGJ-II□□(M)/□□(M)	M20	1/2"	1/2"	M25	3/4"	3/4"	36	703044	0.10
	M25	3/4"	3/4"	M32	1"	1"	36	703045	0.15
	M32	1"	1"	M40	1 1/4"	1 1/4"	42	703046	0.25
	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	42	703047	0.25
	M50	1 1/2"	1 1/2"	M63	2"	2"	42	703048	0.35
	M63	2"	2"	M75	2 1/2"	2 1/2"	44	703049	0.50
	M75	2 1/2"	2 1/2"	M90	3"	3"	44	703050	0.65
	M90	3"	3"	M115	4"	4"	44	703051	1.00

Note: 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional.
Above weight is based upon galvanized carbon steel.
2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Selection table

Version	Female thread "H"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	A	B	L		
 BGJ- Ⅲ□□(F)/□□(F)	M20	1/2"	1/2"	38	15	40	703052	0.15
	M25	3/4"	3/4"	42	20	40	703053	0.25
	M32	1"	1"	47	25	46	703054	0.35
	M40	1 1/4"	1 1/4"	65	32	46	703055	0.50
	M50	1 1/2"	1 1/2"	73	38	46	703056	0.50
	M63	2"	2"	85	50	52	703057	0.85
	M75	2 1/2"	2 1/2"	108	65	52	703058	1.25
	M90	3"	3"	115	76	57	703059	1.70
	M115	4"	4"	145	100	57	703060	2.20
 BGJ- Ⅲ□□(M)/□□(F)	M20	1/2"	1/2"	38	15	55	703061	0.20
	M25	3/4"	3/4"	42	20	55	703062	0.30
	M32	1"	1"	47	25	64	703063	0.45
	M40	1 1/4"	1 1/4"	65	32	64	703064	0.60
	M50	1 1/2"	1 1/2"	73	38	64	703065	0.65
	M63	2"	2"	85	50	73	703066	1.05
	M75	2 1/2"	2 1/2"	110	102	73	703067	1.45
	M90	3"	3"	115	110	81	703068	1.55
	M115	4"	4"	145	140	81	703069	2.00
 BGJ- Ⅲ□□(M)/□□(M)	M20	1/2"	1/2"	38	15	64	703070	0.20
	M25	3/4"	3/4"	42	20	64	703071	0.30
	M32	1"	1"	47	25	74	703072	0.45
	M40	1 1/4"	1 1/4"	65	32	74	703073	0.70
	M50	1 1/2"	1 1/2"	73	38	74	703074	0.75
	M63	2"	2"	85	50	84	703075	1.20
	M75	2 1/2"	2 1/2"	110	102	84	703076	1.60
	M90	3"	3"	115	110	94	703077	2.05
	M115	4"	4"	145	140	94	703078	2.55

Note: 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional.
Above weight is based upon galvanized carbon steel.
2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Accessories for Installation
BAG Series Explosion-proof Seal Bushings



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Copper-free aluminium, powder coated surface.
- Widely used for isolating seal between pipes or pipes and explosion-proof enclosures.

Catalogue number logic

BAG - □ □ □

- Size
- Thread
  - M: Metric thread
  - NPT: NPT thread
  - G: Pipe thread
- Type
  - Z: Vertical type
  - H: Horizontal type
  - P: Drainage type
- Explosion-proof seal bushings

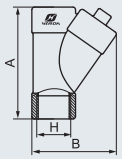
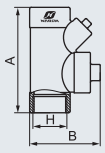
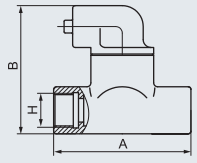
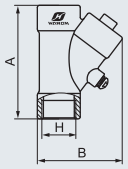
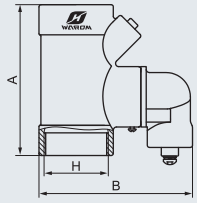
Technical data

Explosion-proof seal bushings	BAG-□□□
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC Gb Ⓔx II 2 G Ex eb IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	EPT 14 ATEX 1124X; IECEx CQM 13.0029X; RU C-CN.ГБ08.B.00927(CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Enclosure material	Copper-free aluminium, powder coated surface. Note: Other material can be customized on request.
Enclosure colour	Window grey (RAL 7040)
Degree of protection	IP66
Ambient temperature	-60℃~+75℃
Type	Type Z, Type H, Type P
Connection thread	1. Metric thread is standard type; G thread or NPT thread is optional. (The seal bushings are supplied without filling compound. Please sepcify when ordering) 2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Zones 1&2; 21&22

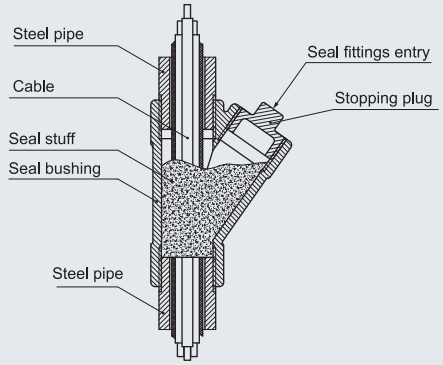
Accessories for Installation
BAG Series Explosion-proof Seal Bushings

Selection table

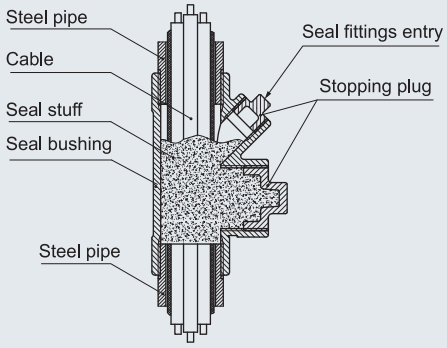
Version	Female thread "H"			Dimensions (mm)		Cable outer diameter (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	A	B			
 Type Z	M20	1/2"	1/2"	77	54	8~10	704001	0.10
	M25	3/4"	3/4"	87	65	10~14	704002	0.15
	M32	1"	1"	102	78	12~17	704003	0.20
 Type Z	M40	1 1/4"	1 1/4"	130	87	15~23	704004	0.35
	M50	1 1/2"	1 1/2"	130	92	17~26	704005	0.35
	M63	2"	2"	140	107	25~35	704006	0.50
 Type H	M20	1/2"	1/2"	74	95	8~10	704007	0.30
	M25	3/4"	3/4"	74	101	10~14	704008	0.30
	M32	1"	1"	74	107	12~17	704009	0.30
	M40	1 1/4"	1 1/4"	98	115	15~23	704010	0.35
	M50	1 1/2"	1 1/2"	98	134	17~26	704011	0.45
	M63	2"	2"	120	142	25~35	704012	0.55
 Type P	M20	1/2"	1/2"	88	61	8~10	704013	0.15
	M25	3/4"	3/4"	100	74	10~14	704014	0.20
	M32	1"	1"	111	83	12~17	704015	0.25
 Type P	M40	1 1/4"	1 1/4"	130	116	15~23	704016	0.45
	M50	1 1/2"	1 1/2"	130	121	17~26	704017	0.45
	M63	2"	2"	140	143	25~35	704018	0.65

Accessories for Installation
BAG Series Explosion-proof Seal Bushings

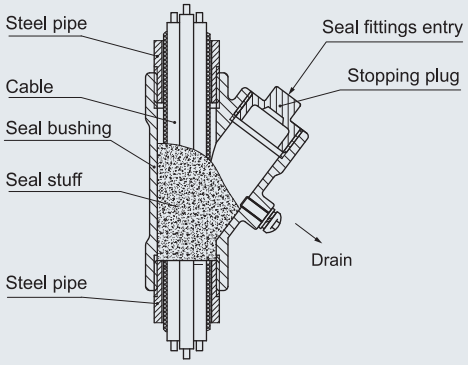
Schematic diagram



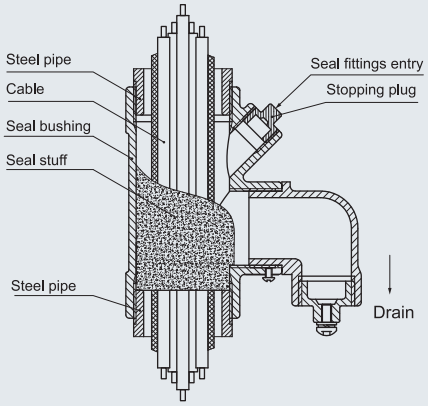
BAG-Z(Vertical type M20 x 1.5～M32 x 1.5)



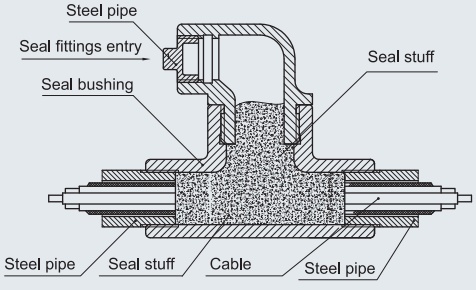
BAG-Z(Vertical type M40 x 1.5～M63 x 1.5)



BAG-P(Drainage type M20 x 1.5～M32 x 1.5)



BAG-P(Drainage type M40 x 1.5～M63 x 1.5)



BAG-H(Horizontal type)

Cable Glands

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
  - Class I, Division 2, Groups A , B, C, D
- Ex d and Ex e versions
- Cable glands：
  - -Suitable for armored or unarmored cable
  - -Suitable for cable or steel pipe wiring



Explosion-proof cable glands include:

1) DQM-I (Ex e)
   - -Plastic, unarmored
   - -Metal, unarmored or armored
2) DQM-II (Ex d Ex e)
   - -Metal, unarmored, single seal
   - -Metal, armored, dual seal
   - -Metal, armored, dual seal, "Cold Flow"
3) DQM-III (Ex d Ex e)
   - -Metal, unarmored, compound barrier
   - -Metal, armored, compound barrier

Zones 1&2; 21&22

Cable Glands
DQM-I Series Explosion-proof Cable Glands (Ex e)
Plastic Unarmored



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Ex e structure, made of plastic, black.
- Single seal, suitable for unarmored cable.

Technical data

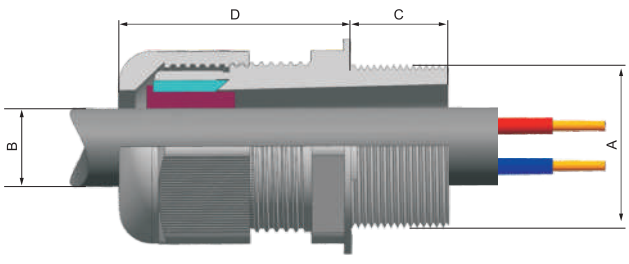
Explosion-proof cable glands DQM-I (plastic unarmored)

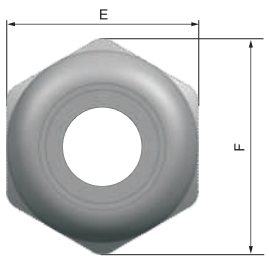
Explosion protection	Ⓔx II 2 G Ex e IIC Gb Ex e II
Certificates	PTB 04 ATEX 1087X; IECEx CQM 07.0009; RU C-CN.ГБ08.B.00927(CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7; IEC 60079-0, IEC 60079-7
Gland material	Plastic, black
Degree of protection	IP65
Ambient temperature	-20℃~+55℃
Connection thread	Metric thread is standard type; G thread is optional, but limited at G3/4″; NPT thread is not suitable

Selection table

Gland size	Entry thread "A"	Cable outer diameter B (mm)		Minimum thread length C (mm)	Nominal protrusion length D (mm)	Across flats E (mm)	Across corners F (mm)	Ordering code	Weight (kg)
		Min	Max						
16	M16 x 1.5	5	8	15	27	19	21	705001	0.05
20	M20 x 1.5	6	10	15	29	24	26	705002	0.05
25	M25 x 1.5	9	12	15	33	30	33	705003	0.05
		12	16						
3/4	G 3/4"	9	12	15	33	30	33	705004	0.05
		12	16						
32	M32 x 1.5	10	18	15	35	41	45	705005	0.05
40	M40 x 1.5	17	25	14	46	50	55	705006	0.10
50	M50 x 1.5	23	32	14	51	57	63	705007	0.11
63	M63 x 1.5	32	44	15	51	70	78	705008	0.15

Note: 1. Supplied with locknut (nickel plated brass) and seal gasket, without stopping rod.
2. Stopping rod on request. See P7/33.





Cable Glands
DQM-I Series Explosion-proof Cable Glands (Ex e IIC)
Metal Unarmored

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Ex e structure; available in stainless steel, nickel plated brass or galvanized carbon steel.
- Single seal, suitable for unarmored cable.



Technical data

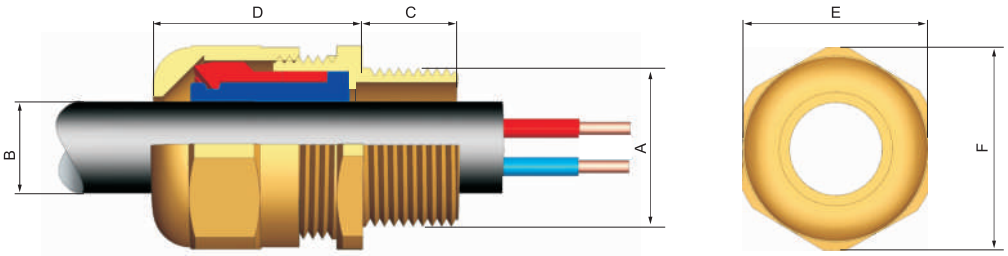
Explosion-proof cable glands DQM-I (metal unarmored)

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex e IIC Gb; Ex eb IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66 / IP67; Ex tb IIIC Db IP66 / IP67
Certificates	EPT 15 ATEX 1965; IECEx EUT 17.0001X; RU C-CN.ГБ08.B.00927(CU-TR) KZ.7500525.22.01.00376 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-31
Gland material	Stainless steel, nickel plated brass or galvanized carbon steel
Degree of protection	IP66 / IP67
Ambient temperature	-60℃ ~ +100℃
Connection thread	Metric thread is standard type; G thread or NPT thread is optional

Selection table

Gland size	Entry thread "A"			Cable outer diameter B (mm)		Minimum thread length C (mm)	Nominal protrusion length D (mm)	Across flats E (mm)	Across corners F (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Min	Max						
20	M20	1/2"	1/2"	5	10	15	33	27	30	706001	0.15
25	M25	3/4"	3/4"	9	14	15	33	32	35	706002	0.15
32	M32	1"	1"	13	18	19	37	38	41	706003	0.30
40	M40	1 1/4"	1 1/4"	17	24	19	40	47	50	706004	0.50
50	M50	1 1/2"	1 1/2"	22	32	19	40	55	60	706005	0.55
63	M63	2"	2"	31	44	19	53	68	72	706006	0.70
75	M75	2 1/2"	2 1/2"	43	56	19	53	80	85	706007	0.90

Note: 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional. Above weight is based upon galvanized carbon steel.
2. Supplied with locknut and seal gasket.
3. Earth lug and shroud on request. See P7/34~35.
4. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.



Cable Glands
DQM-I Series Explosion-proof Cable Glands (Ex e IIC)
Metal Armored



Cable wiring



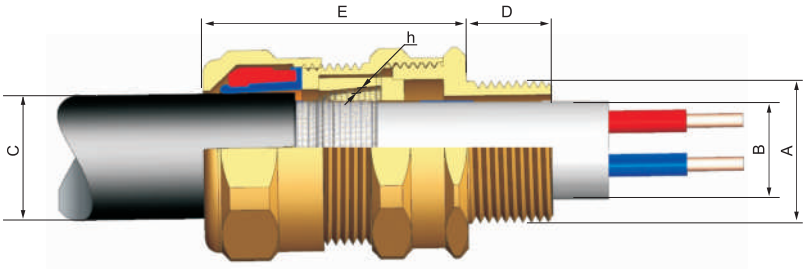
Steel pipe wiring

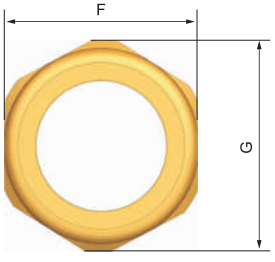
- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 2, Groups A , B, C, D
- Ex e structure; available in stainless steel, nickel plated brass or galvanized carbon steel.
- Single seal, suitable for both armored and unarmored cable.

Technical data

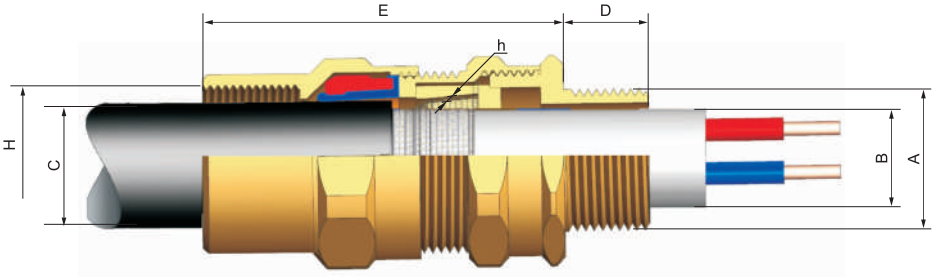
Explosion-proof cable glands DQM-I (metal armored)

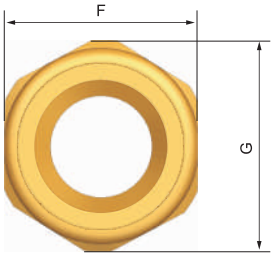
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex e IIC Gb; Ex eb IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66 / IP67; Ex tb IIIC Db IP66 / IP67
Certificates	EPT 15 ATEX 1965; IECEx EUT 17.0001X; RU C-CN.ГБ08.B.00927(CU-TR) KZ.7500525.22.01.00376 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-31
Gland material	Stainless steel, nickel plated brass or galvanized carbon steel
Degree of protection	IP66 / IP67
Ambient temperature	-60℃ ~ +100℃
Connection thread	Metric thread is standard type; G thread or NPT thread is optional





Cable wiring





Steel pipe wiring

Selection table of cable wiring

Gland size	Entry thread "A"			Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Range of armored thickness h (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Max	Min	Max							
20A	M20	1/2"	1/2"	10.5	5.5	12.0	15	51	28	31	0.3~1.0	707001	0.11
20B	M20	1/2"	1/2"	10.5	9.5	16.0	15	51	28	31	0.3~1.0	707002	0.14
20C	M20	1/2"	1/2"	14.5	12.5	20.5	15	53	34	37	0.3~1.0	707003	0.14
25A	M25	3/4"	3/4"	10.5	9.5	16.0	15	51	34	37	0.3~1.0	707004	0.18
25B	M25	3/4"	3/4"	14.5	12.5	20.5	15	53	34	37	0.3~1.0	707005	0.17
25C	M25	3/4"	3/4"	19.5	17.0	26.0	15	58	41	45	0.4~1.2	707006	0.17
32A	M32	1"	1"	14.5	12.5	20.5	19	53	41	45	0.4~1.2	707007	0.20
32B	M32	1"	1"	19.5	17.0	26.0	19	58	41	45	0.4~1.2	707008	0.26
32C	M32	1"	1"	25.5	22.0	33.0	19	62	49	54	0.4~1.4	707009	0.28
40A	M40	1 1/4"	1 1/4"	19.5	17.0	26.0	19	58	49	54	0.4~1.4	707010	0.28
40B	M40	1 1/4"	1 1/4"	25.5	22.0	33.0	19	62	49	54	0.6~1.9	707011	0.31
40C	M40	1 1/4"	1 1/4"	31.0	28.0	41.0	19	69	60	65	0.6~2.2	707012	0.37
50A	M50	1 1/2"	1 1/2"	25.5	22.0	33.0	19	62	60	65	0.6~2.2	707013	0.37
50B	M50	1 1/2"	1 1/2"	31.0	28.0	41.0	19	69	60	65	0.8~2.3	707014	0.55
50C	M50	1 1/2"	1 1/2"	37.0	36.0	52.5	19	77	72	77	0.8~2.3	707015	0.70
63A	M63	2"	2"	31.0	28.0	41.0	19	69	72	77	0.8~2.3	707016	0.85
63B	M63	2"	2"	37.0	36.0	52.5	19	77	72	77	0.9~2.4	707017	1.00
63C	M63	2"	2"	49.0	46.0	65.0	19	95	86	93	0.9~2.4	707018	1.30
75A	M75	2 1/2"	2 1/2"	37.0	36.0	52.5	19	77	84	90	0.9~2.4	707019	2.40
75B	M75	2 1/2"	2 1/2"	55.0	46.0	65.0	19	95	86	93	0.9~2.4	707020	2.70
75C	M75	2 1/2"	2 1/2"	64.0	57.0	78.0	19	100	102	110	0.9~2.4	707021	2.80
90	M90	3"	3"	75.0	68.0	88.0	19	100	112	121	0.9~2.4	707022	3.70
115	M115	4"	4"	90.0	83.0	103.0	19	106	127	137	0.9~2.8	707023	4.40

Selection table of steel pipe wiring

Gland size	Entry thread "A"			Entry thread "H"			Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Range of armored thickness h (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Metric	NPT	G	Max	Min	Max							
20A	M20	1/2"	1/2"	M20	1/2"	1/2"	10.5	5.5	12.0	15	66	28	31	0.3~1.0	707024	0.14
20B	M20	1/2"	1/2"	M20	1/2"	1/2"	10.5	9.5	16.0	15	66	28	31	0.3~1.0	707025	0.18
20C	M20	1/2"	1/2"	M25	3/4"	3/4"	14.5	12.5	20.5	15	66	34	37	0.3~1.0	707026	0.18
25A	M25	3/4"	3/4"	M20	1/2"	1/2"	10.5	9.5	16.0	15	66	34	37	0.3~1.0	707027	0.23
25B	M25	3/4"	3/4"	M25	3/4"	3/4"	14.5	12.5	20.5	15	68	34	37	0.3~1.0	707028	0.25
25C	M25	3/4"	3/4"	M32	1"	1"	19.5	17.0	26.0	15	73	41	45	0.4~1.2	707029	0.25
32A	M32	1"	1"	M25	3/4"	3/4"	14.5	12.5	20.5	19	68	41	45	0.4~1.2	707030	0.25
32B	M32	1"	1"	M32	1"	1"	19.5	17.0	26.0	19	77	41	45	0.4~1.2	707031	0.30
32C	M32	1"	1"	M40	1 1/4"	1 1/4"	25.5	22.0	33.0	19	77	49	54	0.4~1.4	707032	0.32
40A	M40	1 1/4"	1 1/4"	M32	1"	1"	19.5	17.0	26.0	19	77	49	54	0.4~1.4	707033	0.32
40B	M40	1 1/4"	1 1/4"	M40	1 1/4"	1 1/4"	25.5	22.0	33.0	19	81	49	54	0.6~1.9	707034	0.32
40C	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	31.0	28.0	41.0	19	89	60	65	0.6~2.2	707035	0.42
50A	M50	1 1/2"	1 1/2"	M40	1 1/4"	1 1/4"	25.5	22.0	33.0	19	81	60	65	0.6~2.2	707036	0.42
50B	M50	1 1/2"	1 1/2"	M50	1 1/2"	1 1/2"	31.0	28.0	41.0	19	88	60	65	0.8~2.3	707037	0.65
50C	M50	1 1/2"	1 1/2"	M63	2"	2"	37.0	36.0	52.5	19	97	72	77	0.8~2.3	707038	0.80
63A	M63	2"	2"	M50	1 1/2"	1 1/2"	31.0	28.0	41.0	19	86	72	77	0.8~2.3	707039	0.98
63B	M63	2"	2"	M63	2"	2"	37.0	36.0	52.5	19	97	72	77	0.9~2.4	707040	0.35
63C	M63	2"	2"	M75	2 1/2"	2 1/2"	49.0	46.0	65.0	19	112	86	93	0.9~2.4	707041	1.65
75A	M75	2 1/2"	2 1/2"	M63	2"	2"	37.0	36.0	52.5	19	96	84	90	0.9~2.4	707042	2.70
75B	M75	2 1/2"	2 1/2"	M75	2 1/2"	2 1/2"	55.0	46.0	65.0	19	112	86	93	0.9~2.4	707043	3.00
75C	M75	2 1/2"	2 1/2"	M90	3"	3"	64.0	57.0	78.0	19	119	102	110	0.9~2.4	707044	3.40
90	M90	3"	3"	M115	4"	4"	75.0	68.0	88.0	19	119	112	121	0.9~2.4	707045	4.00
115	M115	4"	4"	M125	4 1/2"	4 1/2"	90.0	83.0	103.0	19	125	127	137	0.9~2.8	707046	4.80

Note: 1. Standard material is nickel plated brass. Stainless steel or galvanized carbon steel is optional. Above weight is based upon nickel plated brass.
2. Earth lug and shroud on request. See P7/34~35.
3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Cable Glands
DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)
Unarmored Single Seal



Cable wiring

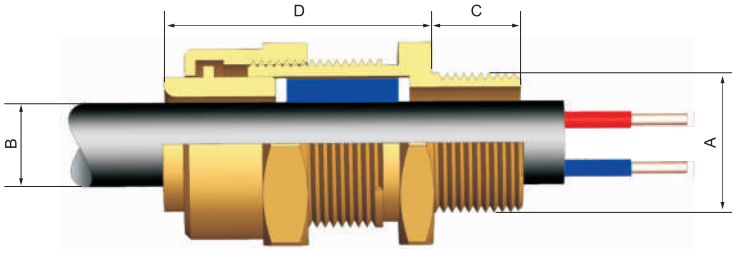


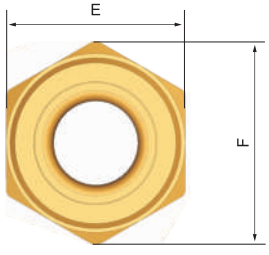
Steel pipe wiring

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Ex d, Ex e structure; available in stainless steel, nickel plated brass or galvanized carbon steel.
- Single seal, suitable for unarmored cable.

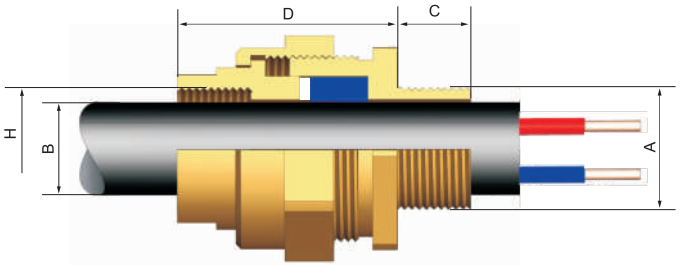
Technical data

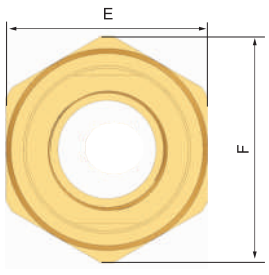
Explosion-proof cable glands	DQM-II (unarmored single seal)
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC Gb Ⓔx II 2 G Ex e IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	LCIE 06 ATEX 6100X; IECEx LCI 08.0011X; RU C-CN.ГБ05.B.00345(CU-TR) KZ.7500525.22.01.00376 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Gland material	Stainless steel, nickel plated brass or galvanized carbon steel
Degree of protection	IP66 (IP67 optional)
Ambient temperature	-60℃~+100℃
Connection thread	Metric thread is standard type; G thread or NPT thread is optional





Cable wiring





Steel pipe wiring

Selection table of cable wiring

Gland size	Entry thread "A"			Cable outer diameter B (mm)		Minimum thread length C (mm)	Nominal protrusion length D (mm)	Across flats E (mm)	Across corners F (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Min	Max						
20	M20	1/2"	1/2"	6.5	10	16	37	30	34	708001	0.15
25	M25	3/4"	3/4"	10	14	16	40	36	41	708002	0.20
32	M32	1"	1"	11	18	16	40	41	46	708003	0.30
40	M40	1 1/4"	1 1/4"	14	23	16	45	50	55	708004	0.45
50	M50	1 1/2"	1 1/2"	20	27	16	50	60	65	708005	0.70
63	M63	2"	2"	25	34	16	57	70	75	708006	0.90
75	M75	2 1/2"	2 1/2"	38	57	19	65	102	110	708007	2.30
90	M90	3"	3"	55	67	19	85	110	115	708008	2.50
115	M115	4"	4"	48	80	19	105	140	145	708009	4.60

Selection table of steel pipe wiring

Gland size	Entry thread "A"			Entry thread "H"			Cable outer diameter B (mm)		Minimum thread length C (mm)	Nominal protrusion length D (mm)	Across flats E (mm)	Across corners F (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Metric	NPT	G	Min	Max						
20	M20	1/2"	1/2"	M20	1/2"	1/2"	10	14	15	51	31	33	708010	0.20
25	M25	3/4"	3/4"	M25	3/4"	3/4"	12	17	15	51	39	42	708011	0.25
32	M32	1"	1"	M32	1"	1"	15	22	19	65	45	48	708012	0.40
40	M40	1 1/4"	1 1/4"	M40	1 1/4"	1 1/4"	20	30	19	68	60	65	708013	0.60
50	M50	1 1/2"	1 1/2"	M50	1 1/2"	1 1/2"	26	37	19	68	70	75	708014	0.75
63	M63	2"	2"	M63	2"	2"	30	47	19	73	82	87	708015	1.15
75	M75	2 1/2"	2 1/2"	M75	2 1/2"	2 1/2"	38	57	19	73	102	110	708016	1.50
90	M90	3"	3"	M90	3"	3"	55	67	19	73	110	115	708017	1.80
115	M115	4"	4"	M115	4"	4"	48	80	19	78	140	145	708018	3.50

Note: 1. Standard material is galvanized carbon steel. Nickel plated brass or stainless steel is optional. Above weight is based upon galvanized carbon steel.
2. Earth lug and shroud on request. See P7/34~35.
3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Cable Glands
DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)
Armored Dual Seal



Cable wiring

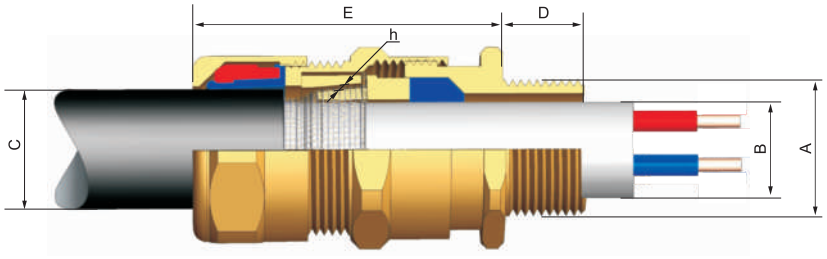


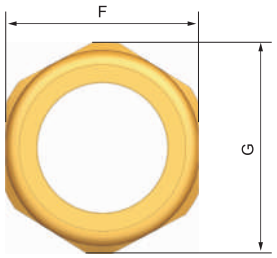
Steel pipe wiring

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Ex d, Ex e structure; available in stainless steel, nickel plated brass or galvanized carbon steel.
- Dual seal, suitable for both armored and unarmored cable.

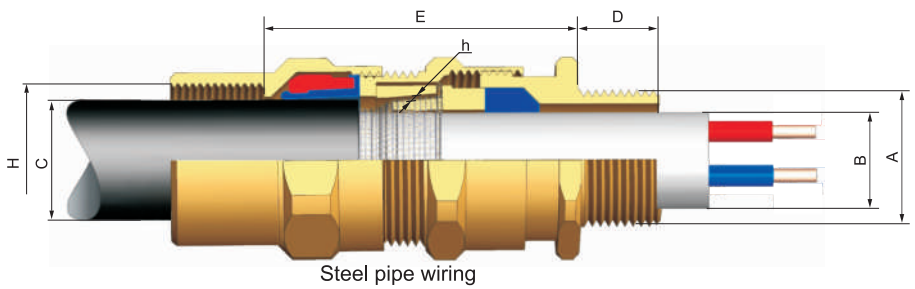
Technical data

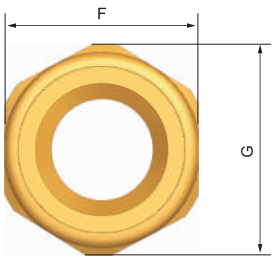
Explosion-proof cable glands	DQM-II (armored dual seal)
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC Gb Ⓔx II 2 G Ex e IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	LCIE 06 ATEX 6100X; IECEx LCI 08.0011X; RU C-CN.ГБ05.B.00345(CU-TR) KZ.7500525.22.01.00376 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Gland material	Stainless steel, nickel plated brass or galvanized carbon steel
Degree of protection	IP66 (IP67 optional)
Ambient temperature	-60℃~+100℃
Connection thread	Metric thread is standard type; G thread or NPT thread is optional.





Cable wiring





Steel pipe wiring

Selection table of cable wiring

Gland size	Entry thread "A"			Cable outer diameter B (mm)				Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Range of armored thickness h (mm)	Ordering code	Weight (kg)
				Standard Seal		Alternative Seal										
	Metric	NPT	G	Min	Max	Min	Max	Min	Max							
20A	M20	1/2"	1/2"	4.0	8.0	-	-	5.5	12.0	15	59	28	31	0.3~1.0	709001	0.12
20B	M20	1/2"	1/2"	6.5	10.5	-	-	9.5	16.0	15	59	28	31	0.3~1.0	709002	0.15
20C	M20	1/2"	1/2"	10	14.5	8.5	13.0	12.5	20.5	15	61	34	37	0.3~1.0	709003	0.15
25A	M25	3/4"	3/4"	6.5	10.5	-	-	9.5	16.0	15	59	34	37	0.3~1.0	709004	0.15
25B	M25	3/4"	3/4"	10.0	14.5	8.5	13.0	12.5	20.5	15	61	34	37	0.3~1.0	709005	0.19
25C	M25	3/4"	3/4"	12.5	19.5	9.5	15.5	17.0	26.0	15	68	41	45	0.4~1.2	709006	0.18
32A	M32	1"	1"	10	14.5	8.5	13.0	12.5	20.5	19	61	41	45	0.4~1.2	709007	0.18
32B	M32	1"	1"	12.5	19.5	9.5	15.5	17.0	26.0	19	68	41	45	0.4~1.2	709008	0.22
32C	M32	1"	1"	19	25.5	14.5	21.0	22.0	33.0	19	76	49	54	0.4~1.4	709009	0.30
40A	M40	1 1/4"	1 1/4"	12.5	19.5	9.5	15.5	17.0	26.0	19	68	49	54	0.4~1.4	709010	0.30
40B	M40	1 1/4"	1 1/4"	19.0	25.5	14.5	21.0	22.0	33.0	19	76	49	54	0.6~1.9	709011	0.40
40C	M40	1 1/4"	1 1/4"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	60	65	0.6~2.2	709012	0.40
50A	M50	1 1/2"	1 1/2"	19.0	25.5	14.5	21.0	22.0	33.0	19	76	60	65	0.6~2.2	709013	0.40
50B	M50	1 1/2"	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	60	65	0.8~2.3	709014	0.60
50C	M50	1 1/2"	1 1/2"	31.5	39.0	27.5	35.0	36.0	52.5	19	101	72	77	0.8~2.3	709015	0.80
63A	M63	2"	2"	25.0	32.0	22.0	28.0	28.0	41.0	19	83	72	77	0.8~2.3	709016	0.90
63B	M63	2"	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	101	72	77	0.9~2.4	709017	1.00
63C	M63	2"	2"	42.5	50.0	39.0	46.5	46.0	65.0	19	112	86	93	0.9~2.4	709018	1.20
75A	M75	2 1/2"	2 1/2"	31.5	39.0	27.5	35.0	36.0	52.5	19	101	84	90	0.9~2.4	709019	2.50
75B	M75	2 1/2"	2 1/2"	42.5	55.5	39.0	46.5	46.0	65.0	19	112	86	93	0.9~2.4	709020	2.80
75C	M75	2 1/2"	2 1/2"	54.5	64.0	48.5	58.0	57.0	78.0	19	119	102	110	0.9~2.4	709021	2.90
90	M90	3"	3"	63.0	75.0	-	-	68.0	88.0	19	121	112	121	0.9~2.4	709022	3.90
115	M115	4"	4"	75.0	90.0	-	-	83.0	103.0	19	126	127	137	0.9~2.8	709023	4.55

Selection table of steel pipe wiring

Gland size	Entry thread "A"			Entry thread "H"			Cable outer diameter B (mm)				Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Range of armored thickness h (mm)	Ordering code	Weight (kg)
							Standard Seal		Alternative Seal										
	Metric	NPT	G	Metric	NPT	G	Min	Max	Min	Max	Min	Max							
20A	M20	1/2"	1/2"	M20	1/2"	1/2"	4.0	8.0	-	-	5.5	12.0	15	74	28	31	0.3~1.0	709024	0.15
20B	M20	1/2"	1/2"	M20	1/2"	1/2"	6.5	10.5	-	-	9.5	16.0	15	74	28	31	0.3~1.0	709025	0.20
20C	M20	1/2"	1/2"	M25	3/4"	3/4"	10	14.5	8.5	13.0	12.5	20.5	15	96	34	37	0.3~1.0	709026	0.20
25A	M25	3/4"	3/4"	M20	1/2"	1/2"	6.5	10.5	-	-	9.5	16.0	15	74	34	37	0.3~1.0	709027	0.20
25B	M25	3/4"	3/4"	M25	3/4"	3/4"	10.0	14.5	8.5	13.0	12.5	20.5	15	76	34	37	0.3~1.0	709028	0.24
25C	M25	3/4"	3/4"	M32	1"	1"	12.5	19.5	9.5	15.5	17.0	26.0	15	83	41	45	0.4~1.2	709029	0.27
32A	M32	1"	1"	M25	3/4"	3/4"	10	14.5	8.5	13.0	12.5	20.5	19	76	41	45	0.4~1.2	709030	0.28
32B	M32	1"	1"	M32	1"	1"	12.5	19.5	9.5	15.5	17.0	26.0	19	87	41	45	0.4~1.2	709031	0.27
32C	M32	1"	1"	M40	1 1/4"	1 1/4"	19	25.5	14.5	21.0	22.0	33.0	19	95	49	54	0.4~1.4	709032	0.33
40A	M40	1 1/4"	1 1/4"	M32	1"	1"	12.5	19.5	9.5	15.5	17.0	26.0	19	87	49	54	0.4~1.4	709033	0.33
40B	M40	1 1/4"	1 1/4"	M40	1 1/4"	1 1/4"	19.0	25.5	14.5	21.0	22.0	33.0	19	95	49	54	0.6~1.9	709034	0.36
40C	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	103	60	65	0.6~2.2	709035	0.45
50A	M50	1 1/2"	1 1/2"	M40	1 1/4"	1 1/4"	19.0	25.5	14.5	21.0	22.0	33.0	19	95	60	65	0.6~2.2	709036	0.45
50B	M50	1 1/2"	1 1/2"	M50	1 1/2"	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	103	60	65	0.8~2.3	709037	0.70
50C	M50	1 1/2"	1 1/2"	M63	2"	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	118	72	77	0.8~2.3	709038	0.85
63A	M63	2"	2"	M50	1 1/2"	1 1/2"	25.0	32.0	22.0	28.0	28.0	41.0	19	103	72	77	0.8~2.3	709039	1.20
63B	M63	2"	2"	M63	2"	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	118	72	77	0.9~2.4	709040	1.50
63C	M63	2"	2"	M75	2 1/2"	2 1/2"	42.5	50.0	39.0	46.5	46.0	65.0	19	131	86	93	0.9~2.4	709041	1.80
75A	M75	2 1/2"	2 1/2"	M63	2"	2"	31.5	39.0	27.5	35.0	36.0	52.5	19	118	84	90	0.9~2.4	709042	2.80
75B	M75	2 1/2"	2 1/2"	M75	2 1/2"	2 1/2"	42.5	55.5	39.0	46.5	46.0	65.0	19	131	86	93	0.9~2.4	709043	3.10
75C	M75	2 1/2"	2 1/2"	M90	3"	3"	54.5	64.0	48.5	58.0	57.0	78.0	19	138	102	110	0.9~2.4	709044	3.50
90	M90	3"	3"	M115	4"	4"	63.0	75.0	-	-	68.0	88.0	19	140	112	121	0.9~2.4	709045	4.10
115	M115	4"	4"	M125	4 1/2"	4 1/2"	75.0	90.0	-	-	83.0	103.0	19	145	127	137	0.9~2.8	709046	4.90

Note: 1. Standard material is nickel plated brass. Stainless steel or galvanized carbon steel is optional. Above weight is based upon nickel plated brass.
2. Earth lug and shroud on request. See P7/34~35.
3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Cable Glands
DQM-II Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)
Armored Dual Seal (Cold Flow)



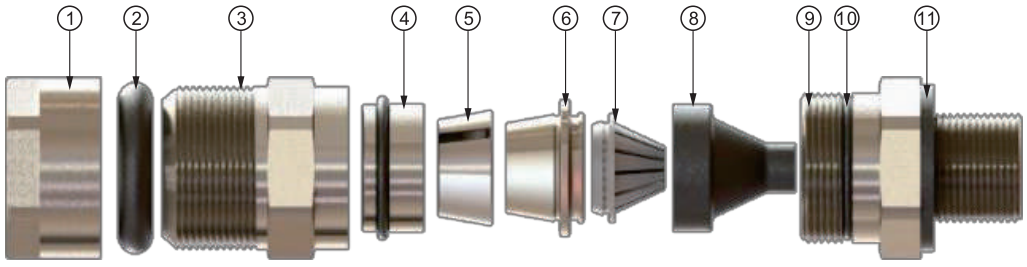
- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Ex d, Ex e structure; available in stainless steel, nickel plated brass or galvanized carbon steel.
- Dual seal, suitable for both armored and unarmored cable.
- For particular use with: cables that exhibet “cold flow” characteristics.

Technical data

Explosion-proof cable glands	DQM-II (Armored Dual Seal)
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex db IIC Gb Ⓔx II 2 G Ex eb IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66/IP68
Certificates	ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Gland material	Brass, stainless steel or nickel plated brass
Degree of protection	IP66/IP68
Ambient temperature	-60℃~+100℃
Connection thread	Metric thread is standard type; G thread or NPT thread is optional

Feature:

- Using thoracic diaphragm sealing element (such as figure ⑧), no any harm to cable inner jecket which has "Cold Flow" feature, and installation is faster more than 50% of general sealing.
- Using flood surge resistance sealing part (such as figure ⑩), prevent moist gas into cable armoured/braided layer

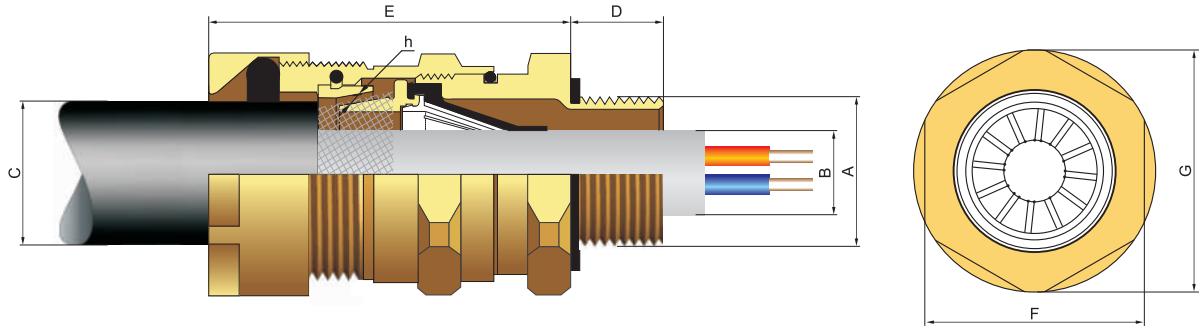


① Cap	④ Braid Ring	⑦ Plastic Insert	⑩ Sealing O-Ring
② Clamping& Sealing O-Ring	⑤ Universal Armour Reduction	⑧ Diaphgram Seal	⑪ Gasket
③ Upper Body	⑥ Grounding Cone	⑨ Body	

Selection table of cable wiring

Gland size	Entry thread "A"		Cable outer diameter B (mm)		Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Range of armored thickness H (mm)		Ordering code	Weight (kg)
	Metric	NPT	Min	Max	Min	Max					Orientation 1	Orientation 2		
16	M16x1.5	1/2"	6.0	11.0	9.0	16.0	15	45.0	24	27.5	0.8~1.25	0~0.8	709047	0.12
20S	M20x1.5	1/2"	6.0	11.0	9.0	16.0	15	45.0	24	27.5	0.8~1.25	0~0.8	709048	0.15
20	M20x1.5	1/2"	8.5	14.5	12.0	20.0	15	48.0	30	33.0	0.8~1.25	0~0.8	709049	0.15
25S	M25x1.5	3/4"	8.5	14.5	12.0	20.0	15	48.0	30	33.0	0.8~1.25	0~0.8	709050	0.18
25	M25x1.5	3/4"	12.0	20.0	16.0	26.0	15	54.0	36	40.0	1.25~1.6	0~0.8	709051	0.18
32S	M32x1.5	1"	12.0	20.0	16.0	26.0	15	54.0	36	40.0	1.25~1.6	0~0.8	709052	0.22
32	M32x1.5	1"	17.0	26.0	20.0	33.0	15	64.5	46	52.5	1.6~2.0	0~0.8	709053	0.30
40S	M40x1.5	1 1/4"	17.0	26.0	20.0	33.0	15	64.5	46	52.5	1.6~2.0	0~0.8	709054	0.40
40	M40x1.5	1 1/4"	23.0	32.0	29.0	41.0	15	67.0	55	64.0	1.6~2.0	0~0.8	709055	0.40
50S	M50x1.5	1 1/2"	23.0	32.0	29.0	41.0	15	67.0	55	64.0	1.6~2.0	0.2~1.0	709056	0.60
50	M50x1.5	1 1/2"	29.0	41.0	36.0	52.0	15	77.7	65	74.0	1.8~2.5	0.2~1.0	709057	0.60
63S	M63x1.5	2"	29.0	41.0	36.0	52.0	15	77.7	65	74.0	1.8~2.5	0.2~1.0	709058	1.00
63	M63x1.5	2"	44.0	56.0	50.0	65.0	15	90.7	80	92.0	1.8~2.5	0.2~1.0	709059	1.20
75S	M75x1.5	2 1/2"	44.0	56.0	50.0	65.0	15	90.7	80	92.0	1.8~2.5	0.2~1.0	709060	2.80
75	M75x1.5	2 1/2"	54.5	68.0	61.0	78.0	15	103.7	95	107.5	1.8~2.5	0.2~1.0	709061	2.90
80S	M80x1.5	3"	54.5	68.0	61.0	78.0	15	103.7	95	107.5	1.8~2.5	0.2~1.0	709062	3.20
80	M80x1.5	3"	67.0	73.0	75.0	89.0	15	100.2	106	118.0	2.0~3.5	0.2~1.0	709063	3.50
90	M90x1.5	3 1/2"	67.0	77.0	75.0	89.0	15	100.2	115	113.0	2.0~3.5	0.2~1.0	709064	3.90
100	M100x1.5	4"	75.0	91.0	88.0	104.0	15	114.0	127	145.0	2.0~4.0	0.2~1.0	709065	4.55

Note: 1. Standard material is brass. Nickel plated brass or stainless steel is optional. Above weight is based upon nickel plated brass.
2. Earth lug and shroud on request. See P7/34~35.
3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.



Cable Glands
DQM-III Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)
Unarmored Compound Barrier



Cable wiring

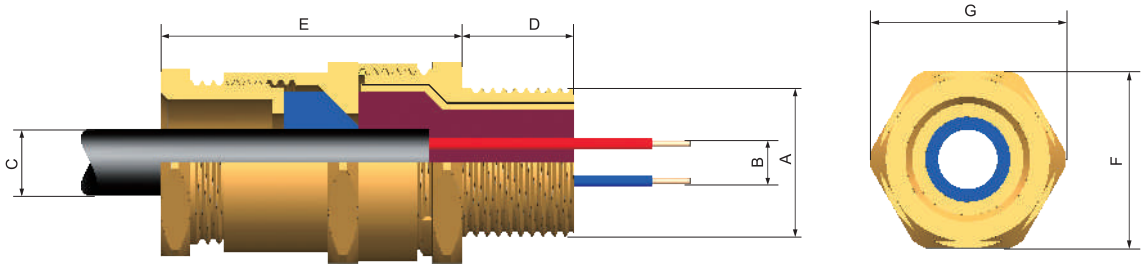


Steel pipe wiring

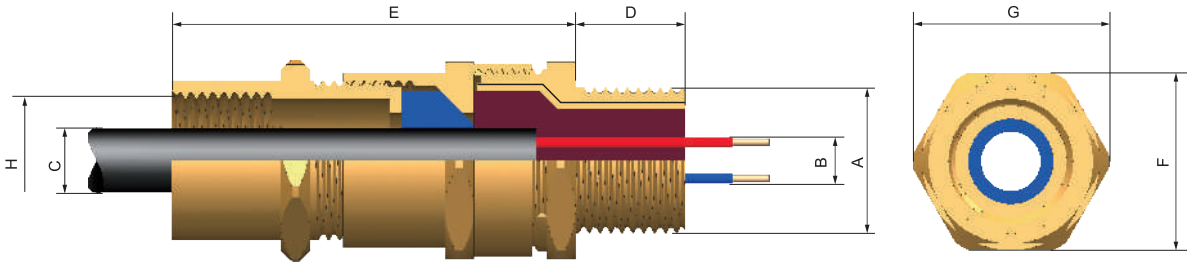
- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Ex d, Ex e structure; available in stainless steel, nickel plated brass or galvanized carbon steel.
- With sealring and sealing compound; suitable for unarmored cable.

Technical data

Explosion-proof cable glands	DQM-III (unarmored compound barrier)
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC Gb Ⓔx II 2 G Ex e IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	Nemko 10 ATEX 1005X; IECEx CQM 11.0028; RU C-CN.ГБ08.B.00927(CU-TR) KZ.7500525.22.01.00376 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Gland material	Stainless steel, nickel plated brass or galvanized carbon steel
Degree of protection	IP66 (IP67 optional)
Ambient temperature	-20℃~+55℃(-60℃~+100℃ optional)
Connection thread	Metric thread is standard type; G thread or NPT thread is optional



Cable wiring



Steel pipe wiring

Selection table of cable wiring

Gland size	Entry thread "A"			Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Max	Min	Max						
20S	M20	1/2"	1/2"	8	4	9	15	59	27	30	710001	0.11
20	M20	1/2"	1/2"	11	7	12	15	59	27	30	710002	0.11
25	M25	3/4"	3/4"	16	11	17	15	62	34	37	710003	0.17
32	M32	1"	1"	21	15	22	19	70	41	45	710004	0.27
40S	M40	1 1/4"	1 1/4"	25	22	27	19	77	51	55	710005	0.50
40	M40	1 1/4"	1 1/4"	25	27	32	19	77	51	55	710006	0.50
50S	M50	1 1/2"	1 1/2"	31	30	36	19	84	65	70	710007	0.70
50	M50	1 1/2"	1 1/2"	31	36	41	19	84	65	70	710008	0.70
63	M63	2"	2"	40	36	41	19	86	72	77	710009	1.10
75	M75	2 1/2"	2 1/2"	50	30	50	19	143	95	100	710010	2.50
90	M90	3"	3"	57	38	57	19	162	110	115	710011	3.00
115	M115	4"	4"	80	48	80	19	167	125	130	710012	4.00

Selection table of steel pipe wiring

Gland size	Entry thread "A"			Entry thread "H"			Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Metric	NPT	G	Max	Min	Max						
20S	M20	1/2"	1/2"	M20	1/2"	1/2"	8	4	9	15	75	27	30	710013	0.16
20	M20	1/2"	1/2"	M20	1/2"	1/2"	11	7	12	15	75	27	30	710014	0.16
25	M25	3/4"	3/4"	M25	3/4"	3/4"	16	11	17	15	75	34	37	710015	0.22
32	M32	1"	1"	M32	1"	1"	21	15	22	19	88	41	45	710016	0.32
40S	M40	1 1/4"	1 1/4"	M40	1 1/4"	1 1/4"	25	22	27	19	95	51	55	710017	0.55
40	M40	1 1/4"	1 1/4"	M40	1 1/4"	1 1/4"	25	27	32	19	95	51	55	710018	0.55
50S	M50	1 1/2"	1 1/2"	M50	1 1/2"	1 1/2"	31	30	36	19	102	65	70	710019	0.75
50	M50	1 1/2"	1 1/2"	M50	1 1/2"	1 1/2"	31	36	41	19	102	65	70	710020	0.75
63	M63	2"	2"	M63	2"	2"	40	36	41	19	104	72	77	710021	1.20
75	M75	2 1/2"	2 1/2"	M75	2 1/2"	2 1/2"	50	30	50	19	161	95	100	710022	2.60
90	M90	3"	3"	M90	3"	3"	57	38	57	19	180	110	115	710023	3.20
115	M115	4"	4"	M115	4"	4"	80	48	80	19	185	125	130	710024	4.20

Note: 1. Standard material is nickel plated brass. Stainless steel or galvanized carbon steel is optional. Above weight is based upon nickel plated brass.
2. Earth lug and shroud on request. See P7/34~35.
3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Cable Glands
DQM-III Series Explosion-proof Cable Glands (Ex d IIC Ex e IIC)
Armored Compound Barrier



Cable wiring

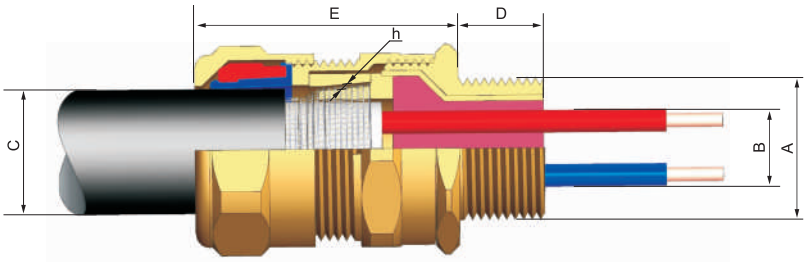


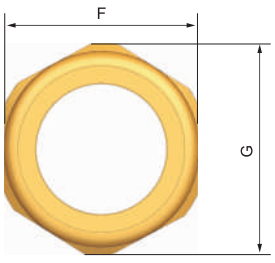
Steel pipe wiring

- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Ex d, Ex e structure; available in stainless steel, nickel plated brass or galvanized carbon steel.
- With sealing ring and sealing compound; suitable for armored cable.

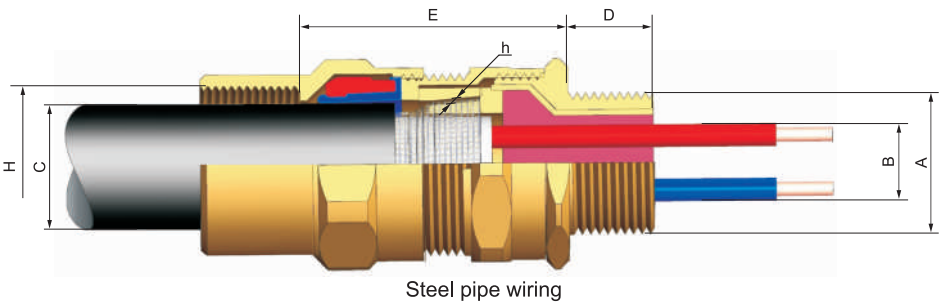
Technical data

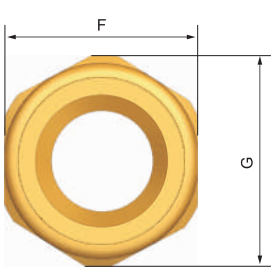
Explosion-proof cable glands	DQM-III (armored compound barrier)
Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC Gb Ⓔx II 2 G Ex e IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tb IIIC Db IP66
Certificates	Nemko 10 ATEX 1005X; IECEx CQM 11.0028; RU C-CN.ГБ08.B.00927(CU-TR) KZ.7500525.22.01.00376 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31
Gland material	Stainless steel, nickel plated brass or galvanized carbon steel
Degree of protection	IP66 (IP67 optional)
Ambient temperature	-20℃~+55℃(-60℃~+100℃ optional)
Connection thread	Metric thread is standard type; G thread or NPT thread is optional





Cable wiring





Steel pipe wiring

Selection table of cable wiring

Gland size	Entry thread "A"			Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Range of armored thickness h (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Max	Min	Max							
20A	M20	1/2"	1/2"	10.0	5.5	12.0	15	51	28	31	0.3~1.0	711001	0.12
20B	M20	1/2"	1/2"	10.0	9.5	16.0	15	51	28	31	0.3~1.0	711002	0.15
20C	M20	1/2"	1/2"	13.0	12.5	20.5	15	53	34	37	0.3~1.0	711003	0.15
25A	M25	3/4"	3/4"	10.0	9.5	16.0	15	51	34	37	0.3~1.0	711004	0.19
25B	M25	3/4"	3/4"	13.0	12.5	20.5	15	53	34	37	0.3~1.0	711005	0.18
25C	M25	3/4"	3/4"	18.0	17.0	26.0	15	58	41	45	0.4~1.2	711006	0.18
32A	M32	1"	1"	13.0	12.5	20.5	19	53	41	45	0.4~1.2	711007	0.21
32B	M32	1"	1"	18.0	17.0	26.0	19	58	41	45	0.4~1.2	711008	0.27
32C	M32	1"	1"	24.0	22.0	33.0	19	62	49	54	0.4~1.4	711009	0.29
40A	M40	1 1/4"	1 1/4"	18.0	17.0	26.0	19	58	49	54	0.4~1.4	711010	0.29
40B	M40	1 1/4"	1 1/4"	24.0	22.0	33.0	19	62	49	54	0.6~1.9	711011	0.32
40C	M40	1 1/4"	1 1/4"	30.0	28.0	41.0	19	69	60	65	0.6~2.2	711012	0.38
50A	M50	1 1/2"	1 1/2"	24.0	22.0	33.0	19	62	60	65	0.6~2.2	711013	0.38
50B	M50	1 1/2"	1 1/2"	30.0	28.0	41.0	19	69	60	65	0.8~2.3	711014	0.57
50C	M50	1 1/2"	1 1/2"	37.0	36.0	52.5	19	77	72	77	0.8~2.3	711015	0.75
63A	M63	2"	2"	30.0	28.0	41.0	19	69	72	77	0.8~2.3	711016	0.90
63B	M63	2"	2"	37.0	36.0	52.5	19	77	72	77	0.9~2.4	711017	1.10
63C	M63	2"	2"	47.0	46.0	65.0	19	95	86	93	0.9~2.4	711018	1.40
75A	M75	2 1/2"	2 1/2"	37.0	36.0	52.5	19	77	84	90	0.9~2.4	711019	2.50
75B	M75	2 1/2"	2 1/2"	55.0	46.0	65.0	19	95	86	93	0.9~2.4	711020	2.90
75C	M75	2 1/2"	2 1/2"	60.0	57.0	78.0	19	100	102	110	0.9~2.4	711021	3.00
90	M90	3"	3"	70.0	68.0	88.0	19	100	112	121	0.9~2.4	711022	3.90
115	M115	4"	4"	90.0	83.0	103.0	19	106	127	137	0.9~2.8	711023	4.60

Selection table of steel pipe wiring

Gland size	Entry thread "A"			Entry thread "H"			Cable outer diameter B (mm)	Cable outer diameter C (mm)		Minimum thread length D (mm)	Nominal protrusion length E (mm)	Across flats F (mm)	Across corners G (mm)	Range of armored thickness h (mm)	Ordering code	Weight (kg)
	Metric	NPT	G	Metric	NPT	G	Max	Min	Max							
20A	M20	1/2"	1/2"	M20	1/2"	1/2"	10.0	5.5	12.0	15	66	28	31	0.3~1.0	711024	0.14
20B	M20	1/2"	1/2"	M20	1/2"	1/2"	10.0	9.5	16.0	15	66	28	31	0.3~1.0	711025	0.17
20C	M20	1/2"	1/2"	M25	3/4"	3/4"	13.0	12.5	20.5	15	66	34	37	0.3~1.0	711026	0.17
25A	M25	3/4"	3/4"	M20	1/2"	1/2"	10.0	9.5	16.0	15	66	34	37	0.3~1.0	711027	0.21
25B	M25	3/4"	3/4"	M25	3/4"	3/4"	13.0	12.5	20.5	15	68	34	37	0.3~1.0	711028	0.20
25C	M25	3/4"	3/4"	M32	1"	1"	18.0	17.0	26.0	15	73	41	45	0.4~1.2	711029	0.20
32A	M32	1"	1"	M25	3/4"	3/4"	13.0	12.5	20.5	19	68	41	45	0.4~1.2	711030	0.23
32B	M32	1"	1"	M32	1"	1"	18.0	17.0	26.0	19	77	41	45	0.4~1.2	711031	0.29
32C	M32	1"	1"	M40	1 1/4"	1 1/4"	24.0	22.0	33.0	19	77	49	54	0.4~1.4	711032	0.31
40A	M40	1 1/4"	1 1/4"	M32	1"	1"	18.0	17.0	26.0	19	77	49	54	0.4~1.4	711033	0.31
40B	M40	1 1/4"	1 1/4"	M40	1 1/4"	1 1/4"	24.0	22.0	33.0	19	81	49	54	0.6~1.9	711034	0.35
40C	M40	1 1/4"	1 1/4"	M50	1 1/2"	1 1/2"	30.0	28.0	41.0	19	89	60	65	0.6~2.2	711035	0.40
50A	M50	1 1/2"	1 1/2"	M40	1 1/4"	1 1/4"	24.0	22.0	33.0	19	81	60	65	0.6~2.2	711036	0.40
50B	M50	1 1/2"	1 1/2"	M50	1 1/2"	1 1/2"	30.0	28.0	41.0	19	88	60	65	0.8~2.3	711037	0.60
50C	M50	1 1/2"	1 1/2"	M63	2"	2"	37.0	36.0	52.5	19	97	72	77	0.8~2.3	711038	0.80
63A	M63	2"	2"	M50	1 1/2"	1 1/2"	30.0	28.0	41.0	19	86	72	77	0.8~2.3	711039	1.05
63B	M63	2"	2"	M63	2"	2"	37.0	36.0	52.5	19	97	72	77	0.9~2.4	711040	1.25
63C	M63	2"	2"	M75	2 1/2"	2 1/2"	47.0	46.0	65.0	19	112	86	93	0.9~2.4	711041	1.60
75A	M75	2 1/2"	2 1/2"	M63	2"	2"	37.0	36.0	52.5	19	96	84	90	0.9~2.4	711042	2.70
75B	M75	2 1/2"	2 1/2"	M75	2 1/2"	2 1/2"	55.0	46.0	65.0	19	112	86	93	0.9~2.4	711043	3.20
75C	M75	2 1/2"	2 1/2"	M90	3"	3"	60.0	57.0	78.0	19	119	102	110	0.9~2.4	711044	3.40
90	M90	3"	3"	M115	4"	4"	70.0	68.0	88.0	19	119	112	121	0.9~2.4	711045	4.20
115	M115	4"	4"	M125	4 1/2"	4 1/2"	90.0	83.0	103.0	19	125	127	137	0.9~2.8	711046	4.90

Note: 1. Standard material is nickel plated brass. Stainless steel or galvanized carbon steel is optional. Above weight is based upon nickel plated brass.
2. Earth lug and shroud on request. See P7/34~35.
3. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Flexible Conduits
BNG Series Stainless Steel Explosion-proof Flexible Conduits



- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
- Ex d structure; stainless steel body; connectors at both ends in stainless steel.
- Application:
  - -Widely used for flexible connection between explosion-proof boxes or explosion-proof light fittings and pipes
  - -Protect cable from any damage
  - -Highly corrosion-proof

Catalogue number logic

BNG - □ x □ □ (□) / □ □ (□)

- M: Male thread
- F: Female thread
- Size
- Thread
  - M: Metric thread
  - NPT: NPT thread
  - G: Pipe thread
- M: Male thread
- F: Female thread
- Size
- Thread
  - M: Metric thread
  - NPT: NPT thread
  - G: Pipe thread
- Length
- Explosion-proof flexible conduits

Technical data

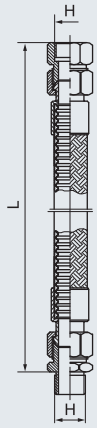
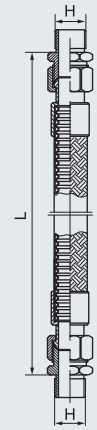
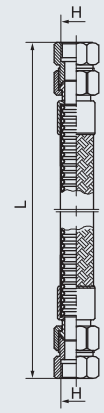
Stainless steel explosion-proof flexible conduits BNG-□x□□(□)/□□(□)

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d IIC Gb
Dust explosion protection	Ⓔx II 2 D Ex tD A21 IP66
Certificates	DNV 10 ATEX 87636U; IECEx CQM 11.0014U; RU C-CN.ГБ05.B.00345(CU-TR) KZ.7500525.22.01.00372 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 61241-0, EN 61241-1 IEC 60079-0, IEC 60079-1, IEC 61241-0, IEC 61241-1
Material	Stainless steel body; connectors at both ends in stainless steel
Degree of protection	IP66
Ambient temperature	-60℃~+55℃
Connection thread	Metric thread is standard type; G thread or NPT thread is optional
Type	F/F, M/F or M/M

Note: 1. M75, M90, M115 equivalent G thread and NPT thread can be customized, other length can be customized.
2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Zones 1&2; 21&22

Selection table

Version	Internal nominal diameter (mm)	Pipe connector thread "H"			Length L (mm)	Minimum bending radius (mm)	Ordering code	Weight (kg)
		Metric	NPT	G				
 BNG-□x□□(M)/□□(F)	15	M20	1/2"	1/2"	700	80	712001	0.55
	15	M20	1/2"	1/2"	1000	80	712002	0.70
	20	M25	3/4"	3/4"	700	110	712003	0.85
	20	M25	3/4"	3/4"	1000	110	712004	1.00
	25	M32	1"	1"	700	145	712005	1.05
	25	M32	1"	1"	1000	145	712006	1.15
	32	M40	1 1/4"	1 1/4"	700	180	712007	1.25
	32	M40	1 1/4"	1 1/4"	1000	180	712008	1.30
	40	M50	1 1/2"	1 1/2"	700	210	712009	1.70
	40	M50	1 1/2"	1 1/2"	1000	210	712010	1.95
	50	M63	2"	2"	700	250	712011	2.35
	50	M63	2"	2"	1000	250	712012	2.40
 BNG-□x□□(M)/□□(M)	15	M20	1/2"	1/2"	700	80	712013	0.50
	15	M20	1/2"	1/2"	1000	80	712014	0.65
	20	M25	3/4"	3/4"	700	110	712015	0.80
	20	M25	3/4"	3/4"	1000	110	712016	0.95
	25	M32	1"	1"	700	145	712017	1.00
	25	M32	1"	1"	1000	145	712018	1.05
	32	M40	1 1/4"	1 1/4"	700	180	712019	1.15
	32	M40	1 1/4"	1 1/4"	1000	180	712020	1.20
	40	M50	1 1/2"	1 1/2"	700	210	712021	1.60
	40	M50	1 1/2"	1 1/2"	1000	210	712022	1.80
	50	M63	2"	2"	700	250	712023	2.15
	50	M63	2"	2"	1000	250	712024	2.25
 BNG-□x□□(F)/□□(F)	15	M20	1/2"	1/2"	700	80	712025	0.65
	15	M20	1/2"	1/2"	1000	80	712026	0.75
	20	M25	3/4"	3/4"	700	110	712027	0.95
	20	M25	3/4"	3/4"	1000	110	712028	1.05
	25	M32	1"	1"	700	145	712029	1.10
	25	M32	1"	1"	1000	145	712030	1.30
	32	M40	1 1/4"	1 1/4"	700	180	712031	1.35
	32	M40	1 1/4"	1 1/4"	1000	180	712032	1.40
	40	M50	1 1/2"	1 1/2"	700	210	712033	1.80
	40	M50	1 1/2"	1 1/2"	1000	210	712034	2.15
	50	M63	2"	2"	700	250	712035	2.55
	50	M63	2"	2"	1000	250	712036	3.15

Accessories

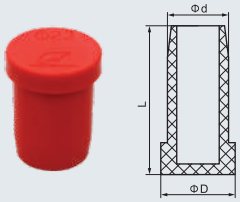


- Explosion protection to
  - -CENELEC
  - -IEC
  - -NEC
- Can be used in
  - Zone 1 and Zone 2
  - Zone 21 and Zone 22
  - Class I, Zone 1 and Zone 2
  - Class I, Division 1, Groups A , B, C, D
  - Class I, Division 2, Groups A , B, C, D

- Accessories for cable gland include stopping rod, stopping plug, shroud, earth lug, etc., meeting requirements of connection between enclosure and cable gland.
- For example, the DQM-I Ex e stopping is used for DQM-I Ex e cable gland to plug up Ex e enclosure.
- Ex e stopping plug in plastic is used to plug up cable entries on Ex e enclosure.
- Ex d stopping plug in aluminium alloy and metal is used to plug up cable entries on Ex d enclosure.
- The shroud protects cable gland against damage.
- The earth lug between cable gland and enclosure is used for earth connection.

Zones 1&2; 21&22

Selection table of DQM-I Ex e stopping rod

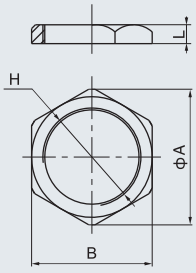
Version	Specification	Dimensions (mm)			Ordering code	Weight (kg)
		L	D	d		
 DQM-I Ex e stopping rod	Φ8 (for M16 x 1.5, M20 x 1.5)	24	10	7.5	713001	0.05
	Φ12 (for M25 x 1.5, M32 x 1.5)	28	13	11.5	713002	0.05
	Φ23 (for M40 x 1.5)	34	27	23	713003	0.05
	Φ32 (for M50 x 1.5, M63 x 1.5)	34	35	32	713004	0.05

Material: Plastic

Ambient temperature: -40℃~+55℃

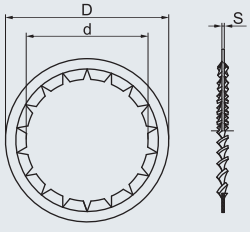
Function: Suitable for DQM-I Ex e unarmored cable gland (see P7/16).

Selection table of locknut

Version	Entry thread "H"			Dimensions (mm)			Ordering code	Weight (kg)
	Metric	NPT	G	A	B	L		
 Locknut 	M16	-	-	22	19	3.5	714001	0.003
	M20	1/2"	1/2"	27	24	3	714002	0.005
	M25	3/4"	3/4"	36	32	4	714003	0.012
	M32	1"	1"	42	38	5	714004	0.017
	M40	1 1/4"	1 1/4"	51	46	6	714005	0.026
	M50	1 1/2"	1 1/2"	60	55	6	714006	0.028
	M63	2"	2"	75	70	6	714007	0.055
	M75	2 1/2"	2 1/2"	90	85	6	714008	0.078
	M90	3"	3"	105	100	8	714009	0.146
	M115	4"	4"	130	125	8	714010	0.255

Material: Galvanized carbon steel, nickel plated brass or stainless steel.
Function: Secures a cable gland in position at the equipment.
Note: 1. Metric thread is standard type; G thread or NPT thread is optional. Please specify material when ordering. The above weight is based upon carbon steel.
2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

Selection table of serrated washer

Version	Specification	Dimensions (mm)			Ordering code	Weight (kg)
		D	d	s		
 Serrated washer 	For M20 x 1.5	33	21	1.5	715001	0.005
	For M25 x 1.5	37	27.5	1.5	715002	0.006
	For M32 x 1.5	45.5	34	1.5	715003	0.008
	For M40 x 1.5	55	42.5	1.5	715004	0.010
	For M50 x 1.5	64.5	50.5	1.5	715005	0.014
	For M63 x 1.5	78	63.5	1.5	715006	0.024
	For M75 x 1.5	92.5	75.5	1.5	715007	0.033

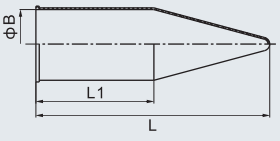
Material: Stainless steel
Function: For use on cable gland entry threads.

Selection table of sealing washer

Version	Specification	Dimensions (mm)			Ordering code	Weight (kg)
		D	d	t		
 Sealing washer 	For M20 x 1.5	28.5	20.5	1.5	716001	0.0010
	For M25 x 1.5	36.5	25.5	1.5	716002	0.0018
	For M32 x 1.5	42.5	32.5	1.5	716003	0.0019
	For M40 x 1.5	50.5	40.5	1.5	716004	0.0025
	For M50 x 1.5	61.5	50.5	1.5	716005	0.0031
	For M63 x 1.5	76	63.5	1.5	716006	0.0045
	For M75 x 1.5	87.5	75.5	1.5	716007	0.0051
	For M90 x 1.5	115	90.5	1.5	716008	0.0130
	For M115 x 1.5	135	115.5	1.5	716009	0.0122

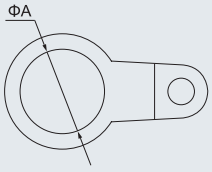
Material: Teflon (PTFE)
Function: For use on cable gland entry threads.

Selection table of shroud

Version	Size Code	Dimensions (mm)			For						Ordering code	Weight (kg)
					DQM-I		DQM-II		DQM-III			
		B	L	L1	Metal Unarmored	Metal Armored	Unarmored Single Seal	Armored Dual seal	Unarmored Compound Barrier	Armored Compound Barrier		
 Shroud 	A	27	168	120	-	-	-	M20A/M20B	M20S/M20	M20A/M20B	717001	0.015
	B	28	103	55	M20	M20A/M20B	-	-	-	-	717002	0.014
	C	33	116	55	M25	M20C/M25A/ M25B	M20	M20C/M25A/ M25B	-	M20C/M25A/ M25B	717003	0.019
	D	36	185	120	-	-	-	-	M25	-	717004	0.027
	E	41	189	120	M32	M25C/M32A/ M32B	M25	M25C/M32A/ M32B	M32	M25C/M32A/ M32B	717005	0.030
	F	42	139	65	-	-	M32	-	-	-	717006	0.027
	G	50	225	140	M40	M32C/M40A/ M40B	M40	M32C/M40A/ M40B	M40S/M40	M32C/M40A/ M40B	717007	0.043
	H	60	253	150	M50	M40C/M50A/ M50B	M50	M40C/M50A/ M50B	-	M40C/M50A/ M50B	717008	0.073
	I	68	253	150	M63	-	-	-	M50S/M50	-	717009	0.095
	J	75	286	155	M75	M50C/M63A/ M63B	M63	M50C/M63A/ M63B	M63	M50C/M63A/ M63B	717010	0.100
	K	90	320	175	-	M63C/M75A/ M75B	-	M63C/M75A/ M75B	M75	M63C/M75A/ M75B	717011	0.165
	L	105	358	185	-	M75C	M75	M75C	-	M75C	717012	0.185
	M	115	407	200	-	M90	M90	M90	M90	M90	717013	0.235
	N	130	407	200	-	M115	-	M115	M115	M115	717014	0.359
	O	140	436	210	-	-	M115	-	-	-	717015	0.414

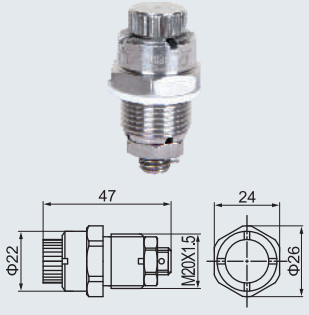
Material: silicone rubber (VMQ)
Function: For fitting over cable glands when additional environmental and corrosion protection is required.

Selection table of earth lug

Version	Specification (ΦA,mm)	Rated short circuit current per second (kA)	Ordering code	Weight(kg)
 Earth lug 	20	3.0	718001	0.05
	25	4.0	718002	0.05
	32	5.4	718003	0.05
	40	7.2	718004	0.05
	50	10.4	718005	0.10
	63	10.4	718006	0.10
	75	10.4	718007	0.15
	90	10.4	718008	0.20
	115	10.4	718009	0.30

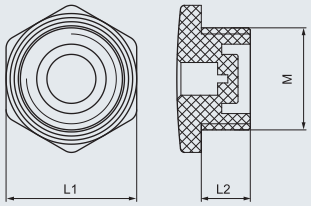
Material: Nickel plated brass
Function: Earth connection.

Selection table of BPS(H) explosion-proof drain plug (Breather)



Explosion protection	Ⓔx II 2 G Ex d IIC Gb
Certificates	DNV 13 ATEX 2631U; IECEx CQM 13.0035U
Conformity to standards	EN 60079-0, EN 60079-1
	IEC 60079-0, IEC 60079-1
Material	SS316
Thread specification	M20×1.5
Ambient temperature	-60℃~+150℃

Selection table of stopping plug (Ex e, plastic)

Version	Specification	Dimensions(mm)			Ordering code	Weight(kg)
		M	L1	L2		
 BPT-e Ex e stopping plug (plastic) 	M16 x 1.5	M16 x 1.5	19	15	719001	0.003
				25	719002	
	M20 x 1.5	M20 x 1.5	24	15	719003	0.005
				25	719004	
	M25 x 1.5	M25 x 1.5	29	15	719005	0.005
				25	719006	
	M32 x 1.5	M32 x 1.5	41	15	719007	0.008
				25	719008	
	M40 x 1.5	M40 x 1.5	50	15	719009	0.011
				25	719010	
	M50 x 1.5	M50 x 1.5	57	15	719011	0.022
				25	719012	
	M63 x 1.5	M63 x 1.5	70	15	719013	0.040
				25	719014	

Explosion protection: Ⓔx II 2 G Ex eb IIC Gb Ex e IIC Gb
Ⓔx II 2 D Ex tb IIIC Db Ex tb IIIC Db IP66
Certificate: EPT 16 ATEX 2502; IECEx CQM 16.0021X
Degree of protection: IP66
Ambient temperature: -40℃~+70℃
Material: PA66 (Polyamide)
Function: To be used at spare entries of explosion-proof equipment; made of plastic; corrosion-proof and waterproof; Metric thread is standard type. Supplied with seal gasket.
Note: Shall be used together with locknut.

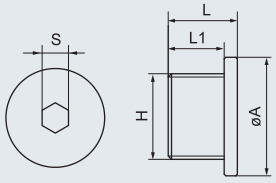
Selection table of BPT stopping plug (Ex d Ex e)

Version

Explosion protection: Ⓔx II 2 G Ex db IIC Gb
Ⓔx II 2 G Ex e IIC Gb
Ⓔx II 2 D Ex tb IIIC Db IP66
Certificate: LCIE 09 ATEX 3040U; IECEx LCIE 15.0070U; RU C-CN.ГБ08.В.00927(CU-TR)
Degree of protection: IP66
Ambient temperature: -60℃ ~ +100℃
Material: Copper-free aluminium, galvanized carbon steel, nickel plated brass or stainless steel.
Function: Metric thread is standard type; G thread or NPT thread is optional. To be used at spare entries of explosion-proof equipment; corrosion-proof and waterproof; supplied with seal gasket (not applicable for NPT thread).
Note: 1. Please specify material when ordering. The above weight is based upon nickel plated brass.
2. Metric threads are 1.5mm pitch as standard, others thread pitch can be customized, please specify when ordering.

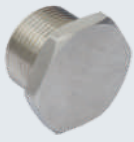


BPT Ex stopping plug

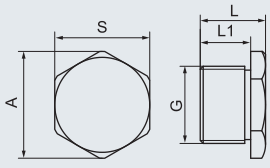


BPT stopping plug (copper-free aluminium)

Entry thread "H"			Dimensions(mm)				Ordering code	Weight (kg)
Metric	NPT	G	A	S	L	L1		
M20	1/2"	1/2"	30	8	22	17	720001	0.05
M25	3/4"	3/4"	36	8	21	17	720002	0.05
M32	1"	1"	45	10	26	20	720003	0.05
M40	1 1/4"	1 1/4"	54	10	26	20	720004	0.05
M50	1 1/2"	1 1/2"	62	10	26	20	720005	0.10
M63	2"	2"	77	10	26	20	720006	0.16

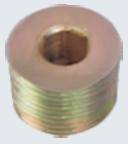


BPT Ex stopping plug (Metric/G)

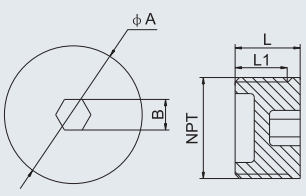


BPT stopping plug (galvanized carbon steel, nickel plated brass or stainless steel)

Entry thread "G"		Dimensions(mm)				Ordering code	Weight (kg)
Metric	G	A	S	L	L1		
M20	1/2"	30	27	22	17	720007	0.05
M25	3/4"	36	32	22	17	720008	0.07
M32	1"	42	38	26	20	720009	0.15
M40	1 1/4"	52	47	26	20	720010	0.17
M50	1 1/2"	60	55	26	20	720011	0.26
M63	2"	70	66	30	22	720012	0.47
M75	2 1/2"	88	83	30	22	720013	0.66
M90	3"	100	95	32	24	720014	0.90
M115	4"	127	122	32	24	720015	1.15



BPT Ex stopping plug (NPT)



BPT stopping plug (galvanized carbon steel, nickel plated brass or stainless steel)

Entry thread "NPT"	Dimensions(mm)				Ordering code	Weight (kg)
NPT	A	B	L	L1		
1/2"	22	10	17	15	720016	0.05
3/4"	27	10	17	15	720017	0.07
1"	34	10	21	19	720018	0.15
1 1/4"	43	10	21	19	720019	0.17
1 1/2"	49	19	22	19	720020	0.26
2"	61	19	23	20	720021	0.47
2 1/2"	74	19	32	29	720022	0.66
3"	90	19	34	31	720023	0.90
4"	115	19	38	34	720024	1.15

Description of MCCB and MCB rotary actuator with padlock

Version	Description	Ordering code	Version	Description	Ordering code
	MCCB rotary actuator, metal material, with padlock, suitable for the locking bar outer diameter of Φ6-Φ8.	721001		MCB rotary actuator, metal material, with padlock, suitable for the locking bar outer diameter of Φ3-Φ4.5.	721004
	MCCB rotary actuator, plastic material, with padlock, suitable for the locking bar outer diameter of Φ5.5-Φ8.	721002		MCB rotary actuator, plastic material, with padlock, suitable for the locking bar outer diameter of Φ3-Φ6.5.	721005
	The product is provided with padlock, suitable for MCCB rotary actuator, the outer diameter of locking bar is Φ6.	721003		The product is provided with padlock, suitable for MCB rotary actuator, the outer diameter of locking bar is Φ4.	721006

Note: The coventional color of Padlock is red, other other colors can be customized, please specify when ordering.



Air Conditioners, Distribution Cabinets and Engineering Cabins

Contents

General Introduction 8/2

Air Conditioners

BKC Series Explosion-proof Window Air Conditioners (Ex d nC IIB) 8/4
BKF(R) Series Explosion-proof Wall Air Conditioners (Ex d [ib] ib nC IIB) 8/6
BKF(R) Series Explosion-proof Wall Air Conditioners (Ex d e ib mb px IIC) 8/8
BKG(R) Series Explosion-proof Tank Air Conditioners (Ex d e ib [ib Gb] nC IIB, IIC) 8/10

Pressurized Products and Engineering Cabins

PXK Series Explosion-proof Pressurized Distribution Cabinets (Ex pz IIC) 8/13
PXK Series Explosion-proof Pressurized Distribution Cabinets (Ex px IIB) 8/14
PXK Series Explosion-proof Pressurized Distribution Cabinets (Ex px IIC) 8/15
PXB Series Explosion-proof Engineering Cabins (Ex px IIB) 8/16

More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

Air Conditioners

- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Mounting: window type, split wall type, and split tank type.
- Ambient temperature groups of T1,T2,T3 are available to meet different climates all over the world. Ambient temperature T1 ranges from -7℃~+43℃, Ambient temperature T2 ranges from -7℃~+35℃, Ambient temperature T3 ranges from -7℃~+52℃, the explosion-proof treatment of products of T1, T2, T3 groups is based on renowned brand. User should choose the proper product according to the local ambient temperature.
- It can be widely used in explosive gas atmosphere of ⅡA, ⅡB, ⅡC with temperature groups of T1, T2, T3, such as petroleum, chemical, mine, oil storage, pharmacy, gas station, liquefied gas station, military facilities, etc..
- Product of T1 group is suitable for area with medium temperature while low temperature for T2 product and high for T3 respectively. The T3 group is mostly suitable for high temperature areas, such as Middle East, Middle Africa etc..
- For explosion-proof window type air conditioner, the corresponding product is the cooling-only air conditioner in T1, T3 group. For split tank and split wall types, both cooling-only and cooling & heating products in T1, T2, and T3 are available.
- Normally, the product is of T1 temperature class, rated voltage is 220V AC/50Hz. Other voltages are available, such as 220V AC/60Hz, 230V AC/50Hz, 230V AC/60Hz, 240V AC/50Hz, 240V AC/60Hz etc., please specify when ordering.
- The Technical Parameters of all kinds of air conditioners are that of T1 temperature class.
- Cooling capacity
  Generally, cooling capacity of 1P (horse power) equals to 2000Kcal. According to international standard, cooling capacity of 1P=2000Kcal x 1.162=2324(W). W represents cooling capacity. Cooling capacity of 1.5P=2000Kcal x 1.5 x 1.162=3486(W). Therefore, it is easy to determine horse power of the air conditioner and the cooling capacity. Normally, 1P product is defined in the range of 2200(W)~2600(W); 3200(W)~3600(W) for 1.5P; 4500 (W)~5100(W) for 2P. For British unit, it should be calculated as follows: A(BTU) x 1.06÷3.6 =B (W). For instance, 18000 (BTU) x 1.06÷3.6=5300 (W), that is, 2P air conditioner. In room of 3 meters high and with out large heating unit, air conditioner of 1P, 1.5P, 2P, 3P, or 5P is suitably used in areas of 12~18, 20~25, 24~36, 30~40, 40~60(m^2). Increase the cooling capacity accordingly if the height of room exceeds 3 meters or there is frequent personnel in and out.

Pressurized Products

Distribution Cabinets

- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Explosion groups (for gases): ⅡB, ⅡC.
- Available in types G (Cabinet type), X (Box type), Q (Piano type), T (Special requirement).
- The explosion-proof performance is achieved by isolating the ignition source by medium, that is, to put all the electrical components in an enclosure filled with pressurized and clean medium, which makes the combustible mixed gas unable to get in touch with the spark or dangerous temperature produced by the components during normal working.
- The product consists of main cavity and auxiliary cavity. The main cavity is of pressurized cavity, with electrical components that

users need and pressure check sensor system, ventilation air distribution system, and air conditioning system etc.. The auxiliary cavity is installed with explosion-proof ventilation auto-control system, explosion-proof power auto-off system, explosion-proof alarm system, explosion-proof pressure display system, and air in/out connector; the auxiliary cavity with auto-air supply is equipped with explosion-proof air supply device.

- Px series pressurized cabinet is equipped with ventilation inter-lock mechanism; the auxiliary cavity can be energized and start to detect the air pressure of main cavity only after ventilation of main cavity. And there is nocombustible gas in the main cavity after reaching the stipulated time and the ventilation value. make sure the electrical components have been isolated effectively by medium before operation;
- The air sources which are provided by user should include the clean or inert gases. Generally, the on-site instrument air can meet requirement. Air pressure is 0.2-0.8MPa or 0.2-0.5MPa (subject to volume size of main cavity).
- The applicable power system is the AC three-phase four-wire 380/220 system and all the light current system; high voltage system is not applicable.
- Pz series pressurized cabinet is a pressurized explosion-proof cabinet designed for Zone 2; compared with Px series, Pz series leave out the safety device that checks ventilation time, and only marks the ventilation time; it is operated according to requirement before energizing of main cavity by user; when air pressure is lower than 100Pa, the auto-control system automatically alarms (audio and visual); opens air inflow and automatically adjusts inner air; when air inflow successes, it recovers to normal; if not, the air pressure decreases to 60Pa; the system does not automatically de-energize, but continues to alarm.
- When ordering, users should provide electric system drawing, control schematic diagram, brand of inner components, layout drawing of panel components, cable side of inlet/out, and quantity, etc. .

Engineering Cabins

- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Enclosure in carbon steel or stainless steel.
- Two types of enclosure.
- Can be customized on request.
- The pressurized engineering cabin is integral of the combination, completion, and installation of industrial online instruments, and is firstly widely used in oil field, oil refining and chemical enterprise;
- The engineering cabinet is of steel construction; the inner and outer walls are both steel plate, with thermal insulating layer in the middle;
- The product is mainly applicable for on-site centralized control, dispatch, craft analysis and instrument monitoring;
- The system consists of main structure of room, pressurized control system, pressurized ventilation system, pressure monitoring system, detection system of combustible gas, detection system of toxic gas, high temperature alarm system, smoking alarm system, audio and visual alarm system, lighting system, air conditioner system, general power system and electrical system.

Air Conditioners
BKC Series Explosion-proof Window Air Conditioners



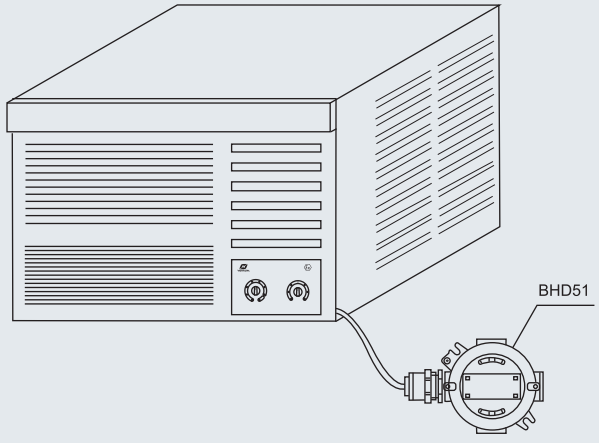
- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 2
- For explosion-proof window air conditioner, the corresponding product is the cooling-only air conditioner in T1 and T3 group. It is mainly used in high temperature areas, such as Middle East, Middle Africa, Southeast Asia and tropical zone nearby the equator.
- Explosion-proof window air conditioner is based on renowned brand, by conducting explosion-proof treatment to internal control units compressor, indoor and outdoor fan motors, temperature sensor system, protective system, heat-removal system, cooling system, etc., after which the outline dimensions and installation are the same as the prototype.

Catalogue number logic

BK C - □/□

- Rated voltage
- Percentage of nominal cooling capacity
- Window type
- Explosion-proof air conditioner

Dimension drawings (all dimensions in mm) - subject to alteration



Zone 2

Technical data

Explosion-proof window air conditioners BKC-□/□

Explosion protection	Ⓔx II 3 G Ex d nC IIB T4 Gc
Certificates	LCIE 11 ATEX 1002X; IECEx CQM 11.0021X; RU C-CN.ГБ08.B.01105 (CU-TR) KZ.7500525.22.01.00377 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-15 IEC 60079-0, IEC 60079-1, IEC 60079-15

Technical data

Type		BKC-50/220	BKC-70/220
Cooling capacity	**W**	5400	7000
	BTU	18000	24000
Rated voltage/Frequency (V/Hz)		220~240/50	220~240/50
Input power (P)		2P	3P
Cooling input power (W)		2750	3770
Rated current (A)		12.8	17.4
Application areas (m^2)		22~32	30~40
Sound level (dB)	**Indoor unit**	⩽53	⩽57
	Outdoor unit	⩽60	⩽63
Outline dimensions (L x W x H) (mm)		730 x 680 x 450	730 x 680 x 450
Weight (kg)		50.00	55.00

Note: The above technical data is for normally supplied products of T3 (–7℃~+55℃) temperature class, voltage is 220~240V AC/50Hz, other voltages are available, such as 220~240V AC/60Hz, please specify when ordering. The above data is only for reference, the actual product shall prevail.

Air Conditioners
BKF(R) Series Explosion-proof Wall Air Conditioners (IIB)



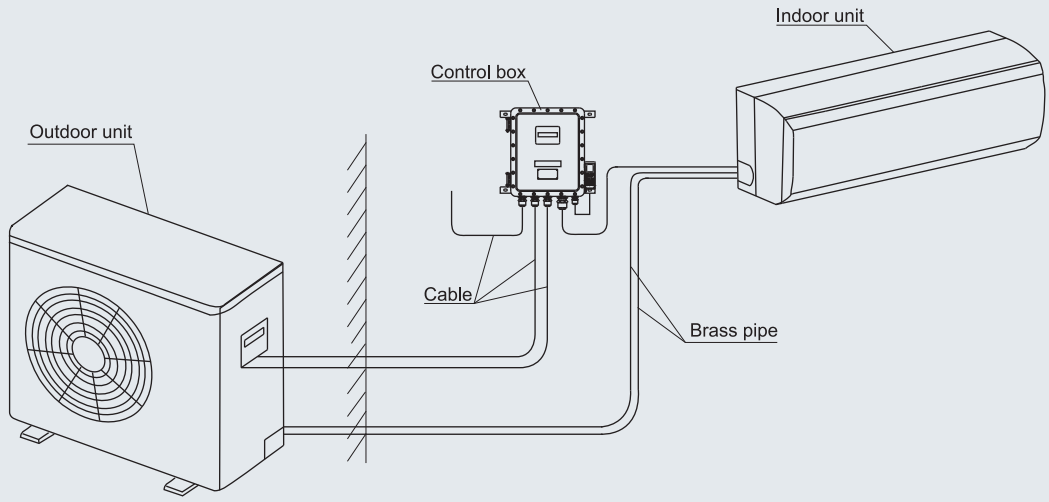
- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
- For explosion-proof wall air conditioner, both cooling-only and cooling & heating products in T1, T2, and T3 are available, to meet different requirements of low, medium and high temperature zones in the world.
- Explosion-proof wall air conditioner is based on renowned brand,by taking explosion-proof measures to indoor and outdoor units. Measures to outdoor unit: by taking special technics and control, conduct explosion-proof treatment to internal control units, compressor, outdoor fan motor, protective system, heat-removal system, cooling system, etc. Besides, explosion-proof control box and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment. Indoor unit: by taking special technics and control, dismantle internal electric control units and redesign explosion-proof structure which enables explosion-proof control box seperated. Remote controller and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment.

Catalogue number logic

BK F (R) - □ / □

- Rated voltage
- Percentage of nominal cooling capacity
- Heating and cooling type
  (cooling-only type without R)
- Wall type
- Explosion-proof air conditioner

Dimension drawings (all dimensions in mm) - subject to alteration



Zones 1&2

Technical data

Explosion-proof wall air conditioners BKF(R)-□/□

Explosion protection	**Outdoor unit** BYS Compressor Ⓔx II 3 G Ex nC II 146℃(T3) BZC Control station Ⓔx II 3 G Ex d IIB BDJ-W Fan motor Ⓔx II 3 G Ex d IIB **Indoor unit** BDJ-N Fan motor Ⓔx II 2 G Ex d IIB T4 BXK Control station Ⓔx II 2 G Ex d [ib] ib IIB T4	**Outdoor unit** Ex d nC IIB 146℃ **Indoor unit** Ex d [ib] ib IIB T4 **Whole unit** Ex nC d [ib] ib IIB 146℃
Certificates	LCIE 08 ATEX 6031X	IECEx CQM 08.0017X
Conformity to standards	RU C-CN.ГБ08.В.01105(CU-TR); KZ.7500525.22.01.00379 (CU-TR) EN 60079-0, EN 60079-1, EN 60079-11, EN 60079-15 IEC 60079-0, IEC 60079-1, IEC 60079-11, IEC 60079-15	

Technical data

Type		BKF-50/220	BKFR-50/220	BKF-71/220	BKFR-71/220
Cooling capacity	**W**	5275	5275	6448	6448
	BTU	18000	18000	24000	24000
Heating capacity (W)		—	5600	—	6600
Rated voltage / Frequency (V/Hz)		220~240/50	220~240/50	220~240/50	220~240/50
Input power (P)		2P	2P	3P	3P
Cooling input power / Current (W/A)		1752/8.0	1752/8.5	2186/10.0	2186/10.5
Heating input power / Current (W/A)		—	1647/7.5	—	1886/8.6
Application areas (m^2)		24~36	22~37	29~48	27~44
Sound level (dB)	**Indoor unit**	43	43	44	44
	Outdoor unit	54	54	55	54
Outline dimensions (L x W x H) (mm)	**Indoor unit**	960 x 385 x 245	960 x 385 x 245	1100 x 358 x 294	1100 x 358 x 294
	Outdoor unit	910 x 690 x 390	910 x 690 x 390	910 x 690 x 390	910 x 690 x 390
	Control box	420 x 350 x 178	420 x 350 x 178	420 x 350 x 178	420 x 350 x 178
Weight (kg)	**Indoor unit**	21.00	21.00	25.00	25.00
	Outdoor unit	62.00	62.00	65.00	65.00
	Control box	21.00	21.00	21.00	21.00

Note: The above technical data is for normally supplied products of T3 (–7℃~+52℃) temperature class, voltage is 220~240V AC/50Hz, other voltages are available, such as 220~240V AC/60Hz, please specify when ordering. The above data is only for reference, the actual product shall prevail.

Air Conditioners
BKF(R) Series Explosion-proof Wall Air Conditioners (IIC)



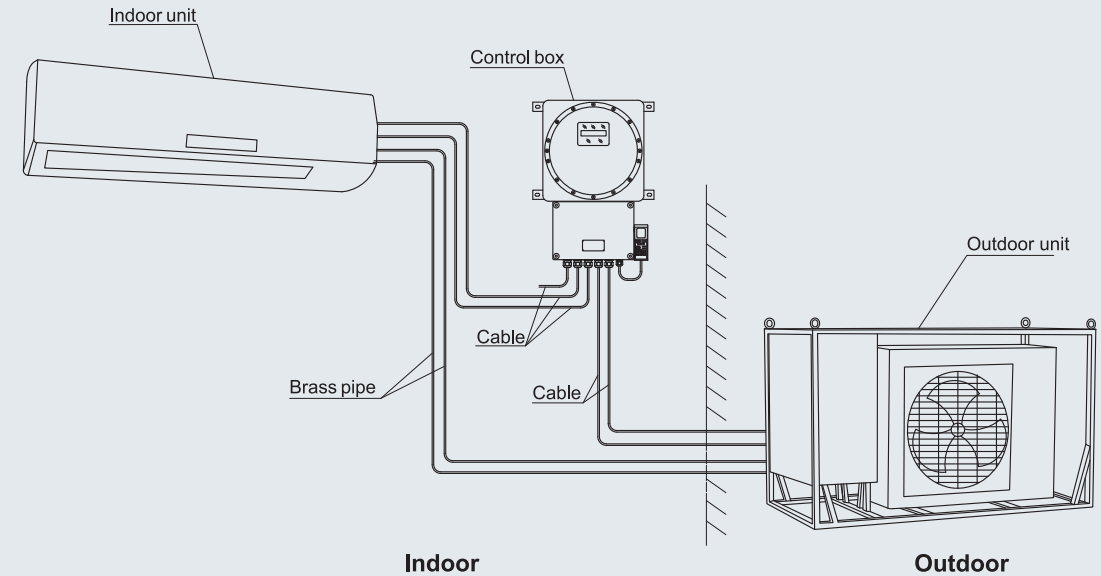
- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- For explosion-proof wall air conditioner, both cooling-only and cooling & heating products in T1, T2, and T3 are available, to meet different requirements of low, medium and high temperature zones in the world.
- Explosion-proof wall air conditioner is based on renowned brand,by taking explosion-proof measures to indoor and outdoor units. Measures to outdoor unit: by taking special technics and control, conduct explosion-proof treatment to internal control units, compressor, outdoor fan motor, protective system, heat-removal system, cooling system, etc. Besides, explosion-proof control box and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment. Indoor unit: by taking special technics and control, dismantle internal electric control units and redesign explosion-proof structure which enables explosion-proof control box seperated. Remote controller and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment.

Catalogue number logic

BK F (R) - □ / □

- Rated voltage
- Percentage of nominal cooling capacity
- Heating and cooling type
  (cooling-only type without R)
- Wall type
- Explosion-proof air conditioner

Dimension drawings (all dimensions in mm) - subject to alteration



Zones 1&2; 21&22

Technical data

Explosion-proof wall air conditioners BKF(R)-□/□

Explosion protection		
Gas explosion protection	Ⓔx II 2 G Ex d e ib mb px IIC T4 Gb	Ex d e ib mb px IIC T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex ib tb pD IIIC T130℃ Db IP66	Ex ibD tb pD IIIC T130℃ Db IP66
Certificates	EUT 14 ATEX 1235	IECEx CQM 14.0001X
	RU C-CN.ГБ08.В.01105(CU-TR); KZ.7500525.22.01.00379 (CU-TR)	
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-2, EN 60079-7, EN 60079-11, EN 60079-18	
	EN 60079-31, EN 61241-4, EN 13463-1	
	IEC 60079-0, IEC 60079-1, IEC 60079-2, IEC 60079-7, IEC 60079-11, IEC 60079-18	
	IEC 60079-31, IEC 61241-4, IEC 61241-11	

Technical data

Type		BKF-50/220	BKFR-50/220	BKF-71/220	BKFR-71/220
Cooling capacity	W	5275	5275	6448	6448
	BTU	18000	18000	24000	24000
Heating capacity (W)		-	5600	-	6600
Rated voltage/Frequency (V/Hz)		220~240/50	220~240/50	220~240/50	220~240/50
Input power (P)		2P	2P	3P	3P
Cooling input power/Current (W/A)		1752/8.0	1752/8.5	2186/10.0	2186/10.5
Heating input power/Current (W/A)		-	1647/7.5	-	1886/8.6
Application areas (m^2)		24~36	22~37	29~48	27~44
Sound level (dB)	**Indoor unit**	43	43	44	44
	Outdoor unit	54	54	55	54
Outline dimensions (L x W x H) (mm)	**Indoor unit**	960 x 385 x 245	960 x 385 x 245	1070 x 400 x 275	1070 x 400 x 275
	Outdoor unit	1450 x 900 x 700	1450 x 900 x 700	1450 x 900 x 700	1450 x 900 x 700
	Control box	690 x 430 x 211	690 x 430 x 211	690 x 430 x 211	690 x 430 x 211
Weight (kg)	**Indoor unit**	21.00	21.00	25.00	25.00
	Outdoor unit	146.00	146.00	148.00	148.00
	Control box	30.00	30.00	30.00	30.00

Note: The above technical data is for normally supplied products of T3 (–7℃~+55℃) temperature class, voltage is 220~240V AC/50Hz, other voltages are available, such as 220~240V AC/60Hz, please specify when ordering. The above data is only for reference, the actual product shall prevail.

Air Conditioners
BKG(R) Series Explosion-proof Tank Air Conditioners



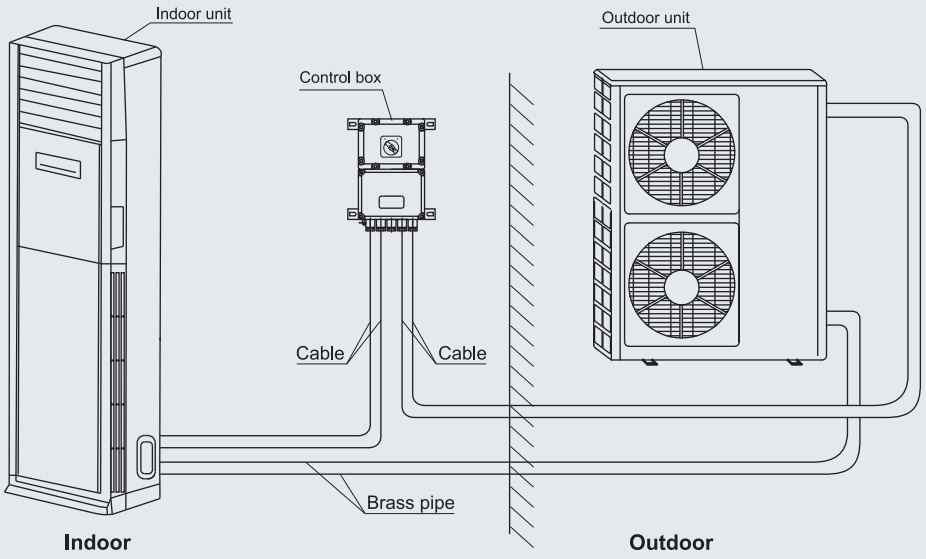
- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
- For explosion-proof tank air conditioner, both cooling-only and cooling & heating products in T1, T2,and T3 are available, to meet different requirements of low, medium and high temperature zones in the world.
- Explosion-proof tank air conditioner is based on renowned brand, by taking explosion-proof measures to indoor and outdoor units. Measures to outdoor unit:by taking special technics and control, conduct explosion-proof treatment to internal control units, compressor, outdoor fan motor, protective system, heat-removal system, cooling system, etc. Besides, explosion-proof control box and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion proof treatment. Indoor unit: by taking special technics and control, dismantle internal electric control units and re-design explosion-proof structure which enables explosion-proof control box separated. Remote controller and sensor system are applied with intrinsic safety. The outline dimensions and installation are the same as the prototype after explosion-proof treatment.

Catalogue number logic

BK G (R) -□/□

- Rated voltage
- Percentage of nominal cooling capacity
- Heating and cooling type
  (cooling-only type without R)
- Tank type
- Explosion-proof air conditioner

Dimension drawings (all dimensions in mm) - subject to alteration



Zones 1&2

Technical data

Explosion-proof tank air conditioners BKG(R)-□/□

Explosion protection	Ⓔx II 3 (2) G Ex d e ib [ib Gb] nC IIB T4 Gc
	Ⓔx II 3 (2) G Ex d e ib [ib Gb] nC IIC T4 Gc
Certificates	PCEC (China); ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-11, EN 60079-15
	IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-11, IEC 60079-15

Technical data

Type		BKG-70/220	BKGR-70/220	BKG-120/380	BKGR-120/380
Cooling capacity	W	7300	7300	12200	12200
	BTU	24000	24000	40000	40000
Heating capacity (W)		—	7800	—	14500
Rated voltage/Frequency (V/Hz)		220/50	220/50	380/50	380/50
Input power (P)		3P	3P	5P	5P
Cooling input power/current (W/A)		2780/12.1	2780/12.1	4380/7.8	4380/7.8
Heating input power/current (W/A)		—	2600/11.3	—	5000/8.9
Application areas (m^2)		27~32	27~32	50~80	50~80
Sound level (dB)	**Indoor unit**	43	43	52	52
	Outdoor unit	53	53	56	56
Outline dimensions (L x W x H) (mm)	**Indoor unit**	1900 x 600 x 280	1900 x 600 x 280	1900 x 600 x 280	1900 x 600 x 280
	Outdoor unit	870 x 850 x 319	870 x 850 x 319	1258 x 970 x 369	870 x 850 x 319
	Control box	380 x 250 x 165	380 x 250 x 165	380 x 250 x 165	380 x 250 x 165
Weight (kg)	**Indoor unit**	48.00	48.00	48.00	48.00
	Outdoor unit	75.00	75.00	119.00	119.00
	Control box	6.00	6.00	7.00	7.00

Note: The above technical data is for normally supplied products of T1 (–7℃~+43℃) temperature class, rated voltage is 220V AC/50Hz, other voltages are available, such as 220V AC/60Hz, 230V AC/50Hz, 230V AC/60Hz, 240V AC/50Hz, 240V AC/60Hz, 380V AC/50Hz, 380V AC/60Hz etc., please specify when ordering.
The above data is only for reference, the actual product shall prevail.

Pressurized Products
PXK Series Explosion-proof Pressurized Distribution Cabinets



- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Explosion-proof types IIB, IIC.
- Available in types G, X, Q, T, K.
- The product consists of main cavity and auxiliary cavity. The main cavity is of pressurized cavity, with electrical components that users need and pressure check sensor system, ventilation air distribution system, and air conditioning system, etc.; the auxiliary cavity is installed with explosion-proof ventilation auto-control system, explosion-proof power auto-off system, explosion-proof alarm system, explosion-proof pressure display system, and air in/out connector; the auxiliary cavity with auto-air supply is equipped with explosion-proof air supply device.
- Cabinet type product adopts GGD frame; the main cavity and auxiliary cavity are of left and right structure;cable channel is of horizontal installation type; bottom inlet, front operation and back overhauling.
- Box type product adopts high quality steel plate welding structure; the main cavity and auxiliary cavity are of up and down structure; wall type installation; bottom inlet, front operation and back overhauling.
- The back doors of cabinet type and piano type are of rapid opening device, convenient for user to install and overhaul.

Catalogue number logic

PXK - □ / □ □

- Protection type: Px & Pz
- Cabinet type I: K1, K2, K3.....K15
- Cabinet type II: G1, G2, G3
- Box type: X1, X2, X3
- Piano type: Q
- Special requirement:T
- T: ventilated type; B: compensated type
- Explosion-proof pressurized distribution cabinets



Ex pz IIC



Ex px IIB



Ex px IIC

Zones 1&2; 21&22

Technical data

Explosion-proof pressurized distribution cabinets (Ex pz IIC) PXK-□/□□

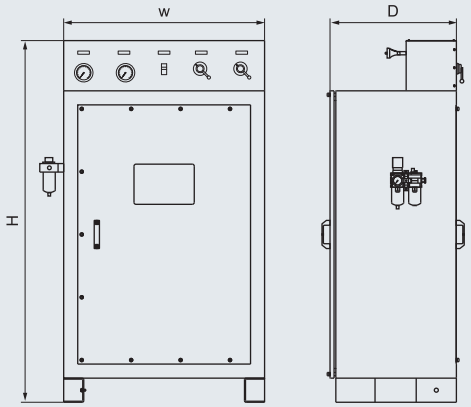
Explosion protection	
Gas explosion protection	Ⓔx II 3 G Ex pz IIC T5 Gc
Dust explosion protection	Ⓔx II 3 D Ex pD IIIC T95℃ Dc IP66
Certificates	EPT 15 ATEX 0187; IECEx EUT 17.0002X
Conformity to standards	EN 60079-0, EN 60079-2, EN 61241-4 IEC 60079-0, IEC 60079-2, IEC 61241-4
Positive pressure value	200Pa~800Pa(0.002bar~0.008bar)
Air sourre	0.2MPa~0.8MPa (2bar~8bar)
Rated voltage	Max.690V AC / 500V DC
Rated current	Max.630A
Enclosure material	Stainless steel or powder coated carbon steel
Degree of protection	IP66
Ambient temperature	-10℃~+55℃

Selection table

Type	Outline W×H×D (mm)	Main cavity W×H×D (mm)	Auxiliary cavity W×H×D (mm)	Effective dimension of main cavity operation panel W×H (mm)	Installation (mm)	Enclosure weight (kg)
K1	680 x 1400 x 385	680 x 1000 x 345	680 x 280 x 345	400 x 700	600 x 180	30.00
K2	880 x 1400 x 385	880 x 1000 x 345	880 x 280 x 345	580 x 700	800 x 180	40.00
K3	1000 x 1400 x 440	1000 x 1000 x 400	1000 x 280 x 345	700 x 700	920 x 280	50.00
K4	1000 x 1400 x 650	1000 x 1000 x 600	1000 x 280 x 345	700 x 700	920 x 459	60.00
K5	1000 x 1400 x 870	1000 x 1000 x 820	1000 x 280 x 345	700 x 700	920 x 679	70.00
K6	1000 x 1680 x 440	1000 x 1280 x 400	1000 x 280 x 345	700 x 980	920 x 280	60.00
K7	1000 x 1680 x 650	1000 x 1280 x 600	1000 x 280 x 345	700 x 980	920 x 459	75.00
K8	1000 x 1680 x 870	1000 x 1280 x 820	1000 x 280 x 345	700 x 980	920 x 679	90.00
K9	1000 x 1830 x 440	1000 x 1430 x 400	1000 x 280 x 345	700 x 1130	920 x 280	70.00
K10	1000 x 1830 x 650	1000 x 1430 x 600	1000 x 280 x 345	700 x 1130	920 x 459	90.00
K11	1000 x 1830 x 870	1000 x 1430 x 820	1000 x 280 x 345	700 x 1130	920 x 679	105.00
K12	1200 x 1920 x 870	1200 x 1800 x 820	700 x 300 x 250	900 x 1500	1120 x 679	130.00
K13	1000 x 1920 x 870	1000 x 1800 x 820	700 x 300 x 250	700 x 1500	920 x 679	110.00
K14	1200 x 2350 x 870	1200 x 2200 x 820	700 x 300 x 250	900 x 1900	1120 x 679	150.00
K15	1000 x 2350 x 870	1000 x 2200 x 820	700 x 300 x 250	700 x 1900	920 x 679	140.00

Dimension drawings

(all dimensions in mm) - subject to alteration



Pz series pressurized cabinets

- It is a pressurized explosion-proof cabinet designed for Zone 2; compared with Px series, Pz series leave out the safety device that checks ventilation time, and only marks the ventilation time; it is operated according to requirement before energizing of main cavity by user; when air pressure is lower than 100Pa, the auto-control system automatically alarms (audio and visual);opens air inflow and automatically adjusts inner air; when air inflow successes, it recovers to normal; if not, the air pressure decreases to 60Pa; the system does not automatically de-energize, but continues to alarm.

Ordering information

- Please specify the product type when ordering according to Catalogue Number Logic;
- Users should provide electrical system drawing, control schematic diagram, brand of inner components,layout drawing of panel components, cable size of inlet/outlet and quantity, etc..

Pressurized Products
PXK Series Explosion-proof Pressurized Distribution Cabinets

Technical data

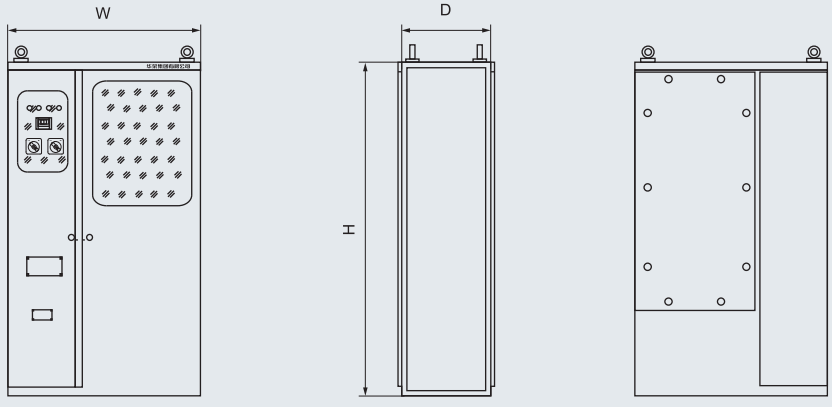
Explosion-proof pressurized distribution cabinets (Ex px IIB) PXK-□/□□

Explosion protection	Ⓔx II 2 G Ex d e [ia] ia px IIB T4 Gb
Certificates	PCEC (China); ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-2, EN 60079-7, EN 60079-11 IEC 60079-0, IEC 60079-1, IEC 60079-2, IEC 60079-7, IEC 60079-11
Positive pressure value	200Pa~800Pa(0.002bar~0.008bar)
Air pressure	0.2MPa~0.8MPa (2bar~8bar)
Rated voltage	Max.690V AC
Rated current	Max.630A
Enclosure material	Powder coated carbon steel or stainless steel
Degree of protection	IP66
Ambient temperature	-40℃~+55℃

Selection table

Type	Outline W×H×D (mm)	Main cavity W×H×D (mm)	Auxiliary cavity W×H×D (mm)	Effective dimension of main cavity operation panel W×H (mm)	Installation (mm)	Enclosure weight (kg)
G1	1200 x 1800 x 600	800 x 1800 x 600	400 x 1800 x 600	600 x 1500	1000 x 550	80.00
G2	1400 x 2100 x 600	1000 x 2100 x 600	400 x 2100 x 600	800 x 1800	1200 x 550	100.00
G3	1400 x 2100 x 800	1000 x 2100 x 800	400 x 2100 x 800	800 x 1800	1200 x 750	120.00

Dimension drawings (all dimensions in mm) - subject to alteration



Px series pressurized cabinets

- The pressurized cavity of cabinet type product has a large volume and large number of components; it is suitable for the start, control,especially the frequency control of motor speed and soft start, etc of large apparatus (large power); it is also used for centralized control, craft control, instrument analysis, and signal centralized processing system.
- Users can select proper size (G1, G2, G3) according to the quantity of inner components, and can design the layout drawing of panel and components according to the following "Effective dimension of operation panel of the main cavity".
- Special design is on request.

Ordering information

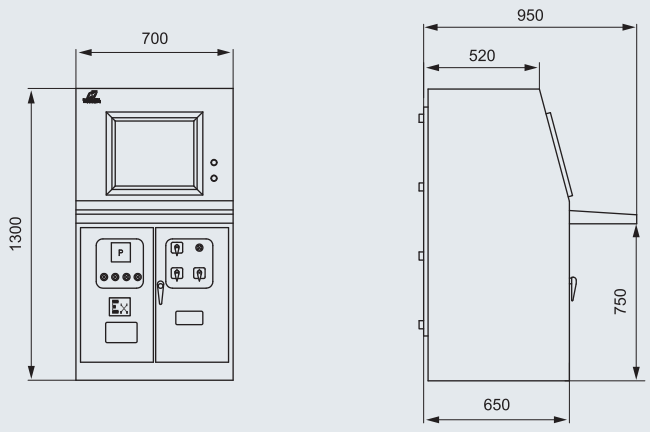
- Please specify the product type when ordering according to Catalogue Number Logic;
- Users should provide electrical system drawing, control schematic diagram, brand of inner components, layout drawing of panel components, cable size of inlet/outlet and quantity, etc..

Technical data

Explosion-proof pressurized distribution cabinets (Ex px IIC) PXK-□/□□

Explosion protection	
Gas explosion protection	Ⓔx II 2 G Ex d e px IIC T4 Gb
Dust explosion protection	Ⓔx II 2 D Ex pD IIIC T130℃ Db IP66
Certificates	PCEC (China); ATEX and IECEx (applied for)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-2, EN 60079-7, EN 61241-4 IEC 60079-0, IEC 60079-1, IEC 60079-2, IEC 60079-7, IEC 61241-4
Positive pressure value	200Pa~800Pa(0.002bar~0.008bar)
Air pressure	0.2MPa~0.8MPa (2bar~8bar)
Rated voltage	Max.690V AC
Rated current	Max.630A
Enclosure material	Powder coated carbon steel or stainless steel
Ambient temperature	-40℃~+55℃

Dimension drawings (all dimensions in mm) - subject to alteration



Px series pressurized cabinets

- The components of pressurized cavity of piano type product are mainly used for on-site control components, analysis instrument, centralized control and signal contact; and used for on-site continuous operation and monitoring;
- Computer can be installed on request;
- Special design is on request.

Ordering information

- Please specify the product type when ordering according to Catalogue Number Logic;
- Users should provide electrical system drawing, control schematic diagram, brand of inner components, layout drawing of panel components, cable size of inlet/outlet and quantity, etc..

Engineering Cabins
PXB Series Explosion-proof Engineering Cabins



- Explosion protection to
  -CENELEC
  -IEC
- Can be used in
  Zone 1 and Zone 2
  Zone 21 and Zone 22
- Enclosure in carbon steel or stainless steel
- The explosion-proof control box is the standard control box or PLC programmed control box. Combustible gas detector and toxic gas detector are modular designed. The thermal detector, smoking detector, and pressure transmitter are intrinsic safety explosion-proof components. The power of explosion-proof centrifugal fan is subject to the room size. The type of explosion-proof air conditioner is subject to the room size. With audio and visual alarm interlock system. Illumination system is the explosion-proof fluorescent lamp. The light source of explosion-proof emergency lamp is LED.

Catalogue number logic

PXB - □/□

- T(carbon steel)
- S(stainless steel)

- I: 12' (12' x 8' x 9')
- II: 20' (20' x 8' x 9')
- T: Special dimensions on request

Explosion-proof engineering cabins

- This product is welded by steel structure.
- A60 Zone I Rated.
- DNV 2.7-1, 2.7-2 Rated Structure.
- Protected with fire detection.
- Gas detection system.
- Fitted with dedicated air conditioning system.
- With continuous clean gas filled; keep the internal air fresh and safe.
- Automatic fire dampers (fail safe).
- Equipped with fire extinguishers.
- Two airtight doors, equipped with viewing window and emergency exit.
- Special requirement on request.







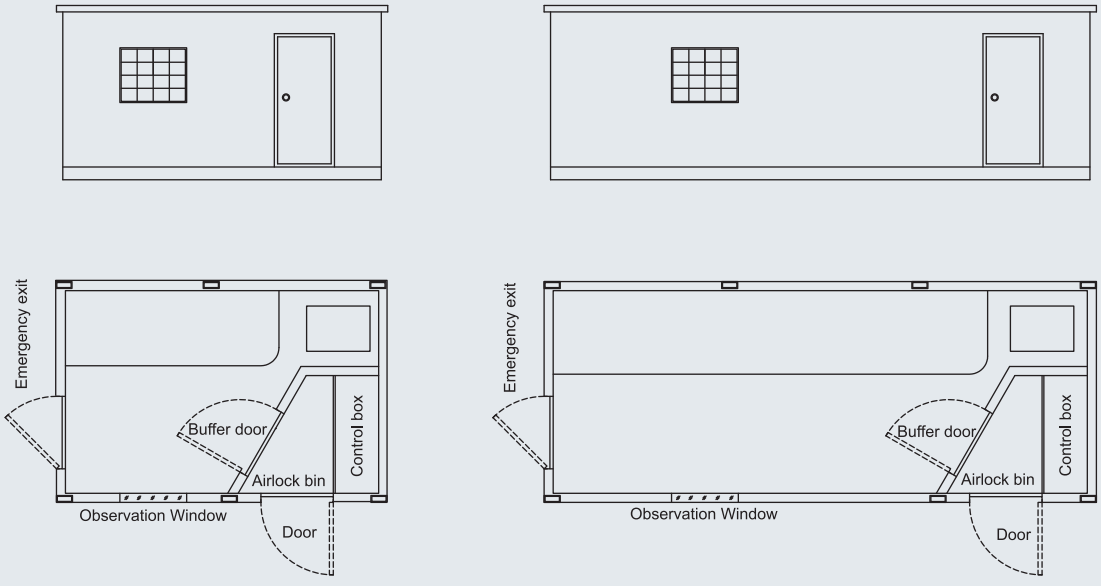
Zones 1&2; 21&22

Technical data

Explosion-proof engineering cabins (Ex px IIB) PXB-□/□□

Explosion protection	
Gas explosion protection	Ⓔx Ⅱ 2 G Ex px Ⅱ B T4 Gb
Dust explosion protection	Ⓔx Ⅱ 2 D Ex px Ⅲ C T130℃ Db
Certificates	IECEx CQM 14.0009X; ATEX (applied for)
Conformity to standards	EN 60079-0, EN 60079-13 IEC 60079-0, IEC 60079-13
Normal operating pressure	50Pa~100Pa(0.0005bar~0.001bar)
Air pressure	0.4MPa~0.8MPa(4bar~8bar)
Rated voltage of user system	220V/380V/400V/440V/460V/660V/690V AC
Rated voltage of pressurized control system	220V/380V AC 50/60Hz
Rated current of pressurized control system	10A
Enclosure material	Powder coated carbon steel or stainless steel
Degree of protection	IP66
Ambient temperature	-20℃~+55℃

Dimension drawings (all dimensions in mm) - subject to alteration



PXB-I (12' x 8' x 9')

PXB-II (20' x 8' x 9')

Declaration: All rights reserved. Any copy, duplication, or reprint without authorisation from our company will be prosecuted.

WAROM TECHNOLOGY INCORPORATED COMPANY

Add: No.555# Baoqian Road, Jiading, Shanghai, PRC
Tel: +86-21-39977086 39977085
Fax: +86-21-39977077
http://www.waromgroup.com
E-mail: gmb@warom.com
P.C: 201808

Pubic Account

Official Website

Take good care of the resources, be kind to the environment