Operating instructions

Series:
ATEX-HAL-TRN-400W-HPS-R1-220V
ATEX-HAL-TRN-400W-MH-R1-220V



EXPEDITED SHIPPING · SUPERIOR CUSTOM FABRICATION

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Purpose of these instructions

◎Working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations.

◎ Staff working on assembly and maintenance therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations.

◎These instructions give a brief summary of the most important safety measures. It supplements the corresponding regulations which the staff must study.



SAFETY INSTRUCTIONS

◎Use this series explosion-proof floodlight fittings only for its intended purpose.

◎This series explosion-proof floodlight fittings are not suitable for Zone 0 hazardous areas!

◎Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision.

◎No changes to the device impairing its explosion-proof performance are permitted.

◎Use the explosion-proof floodlight light fittings only if they are clean and undamaged.

◎Any damage can invalidate the Ex-performance.

◎Observe the following during installation and operation:

- National safety regulations;
- National accident prevention regulations;
- National installation regulations(e.g. IEC 60079-14);
- Generally recognized technical regulations;
- Safety guidelines in these operating instructions;
- Characteristic values given on this series explosion-proof floodlight light fittings.

Conformity to standards

This series explosion-proof floodlight light fittings are designed, manufactured and tested in accordance with ISO 9001.
The series explosion-proof floodlight light fittings complies with the following regulations of ATEX DIRECTIVE 2014/34/EU and following standards:

IEC60079-0 : 2011	EN60079-0 : 2012
IEC60079-1 : 2014	EN60079-1 : 2014
IEC60079-7 : 2015	EN60079-7 : 2015
IEC60079-28 : 2015	EN60079-28 : 2015
IEC60079-31 : 2013	EN60079-31 : 2014

Applicable scope

Series products can be used in IIA,IIB explosive gas atmosphere of zone 1. zone2 and ignitable dust atmosphere of zone21 zone22, as the construction field large scale illumination.Products can be used in indoor and outdoor.

Technical data

◎Ex mark: : Ⓔx Ⅱ 2GD Ex db eb op is Ⅱ B T* Gb
Ex tb op is Ⅲ C T* ℃ Db

◎Certificate:IECEx CML 16.0113X CML 16ATEX1337X

◎Degree of protection: IP66

◎Ambient temperature : -20℃≤Ta≤+40℃/+55℃

◎Rated voltage/frequency: See table 1

◎Power factor: See table 1

◎Light source lampholder: See table 1

◎Cable entry: (Standard configuration)Moulded plastic 1×M25×1.5,Outside diameter: Φ8-17mm
Moulded plastic 1×M25×1.5 stopping plug

◎Terminal: L、N Cage type terminal 2×1~2.5mm², PE 2×2.5-6mm²(Internal) 2×2.5-6mm²(External)

◎Minimum cross-sectional area of protective conductors:

Cross-sectional area of phase conductors, S(mm²)	Minimum cross-sectional area of the corresponding protective conductor, Sp(mm²)
1.0≤S≤2.5	S

◎Stripping length: 6~8mm.

◎Moment of screw down:

M25 Cable gland(Stopping plug)	2.5N・m
M5 Grounding screw	2.0~2.5N・m
M6 Terminal block screw	3.5N・m

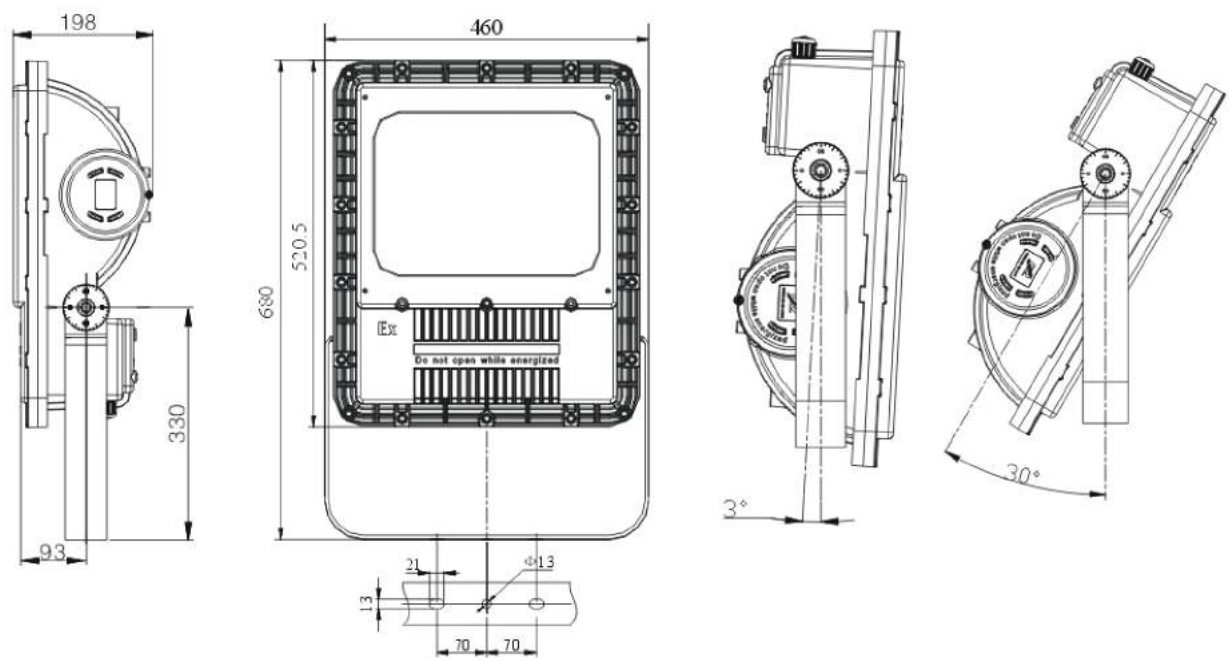
Temperature group see table one ; the different ambient temperature Ta is used and the temperature group are also different.

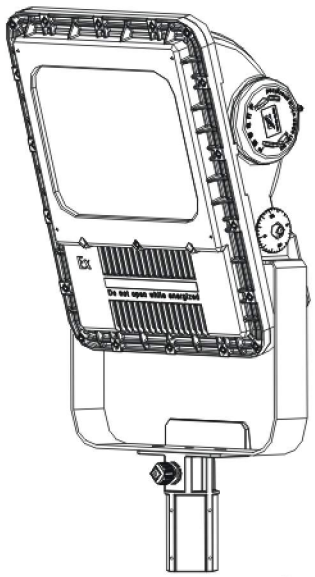
Table 1:

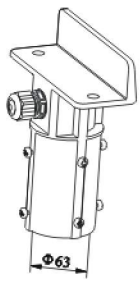
Model specification	Light source code	Lampholder code	Rated power	Rated voltage/ frequency	Rated current	Power factor	Temperature group			
							Ta≤+40℃		Ta≤+55℃	
							Gas	Dust	Gas	Dust
	Metal halide lamp	E40		220V AC		≥0.85				
ATEX-HAL-TRN-400W-MH-R1-220V			400W		<2.4A		T3	T195℃	/	/
	High pressure sodium vapor lamp									
ATEX-HAL-TRN-400W-HPS-R1-220V			400W		<2.9A		T3	T185℃	/	/

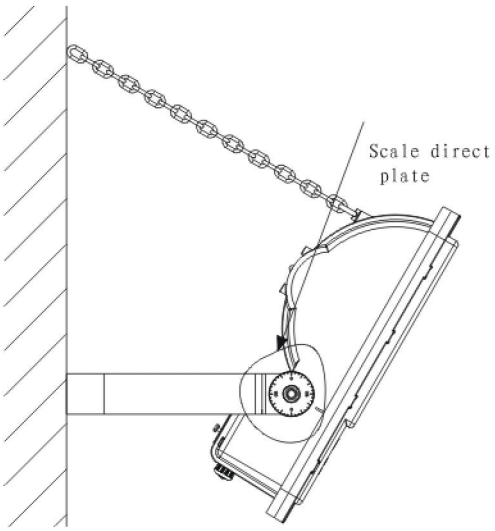
Outline and installation dimensions

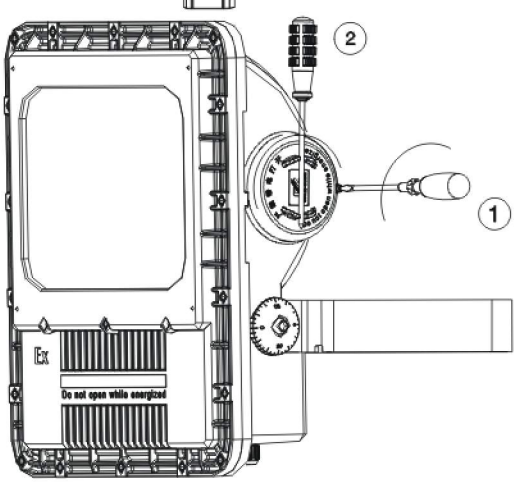
● Explosion-proof floodlight light fittings source for high pressure sodium lamp, metal halide lamp and Electromagnetic induction energy-saving lamp

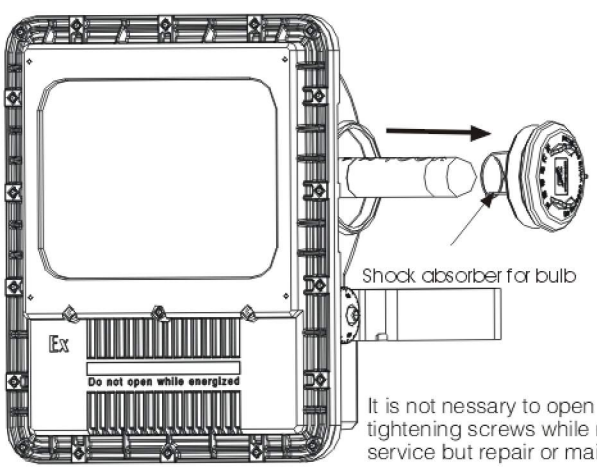






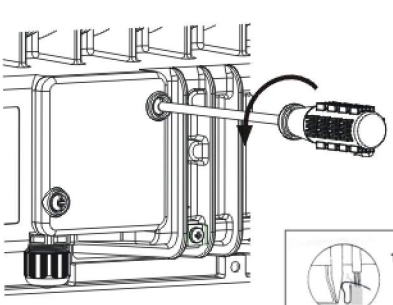


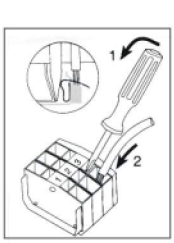




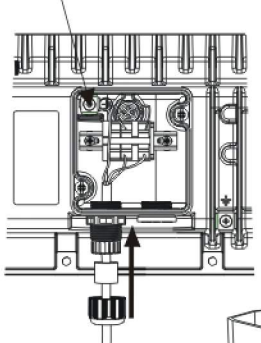
It is not nessary to open the tightening screws while regular service but repair or maintain.

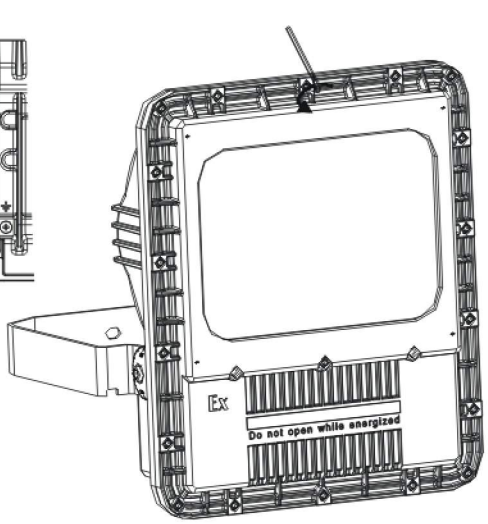
Internal earthing



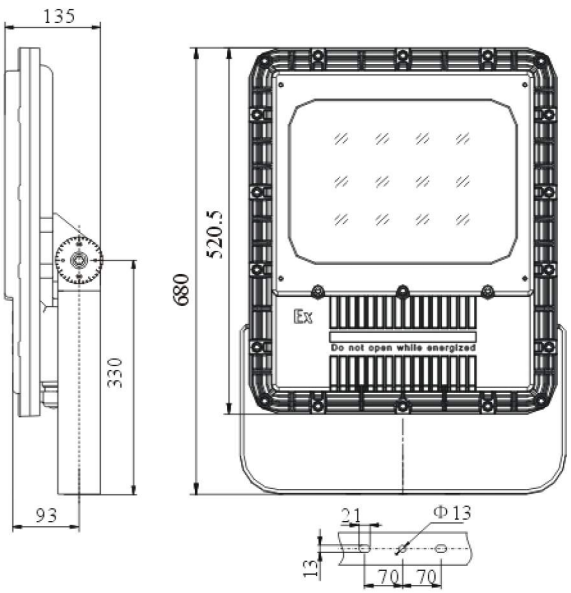


It's easier to be wired by cage type terminal which is certified internationally;

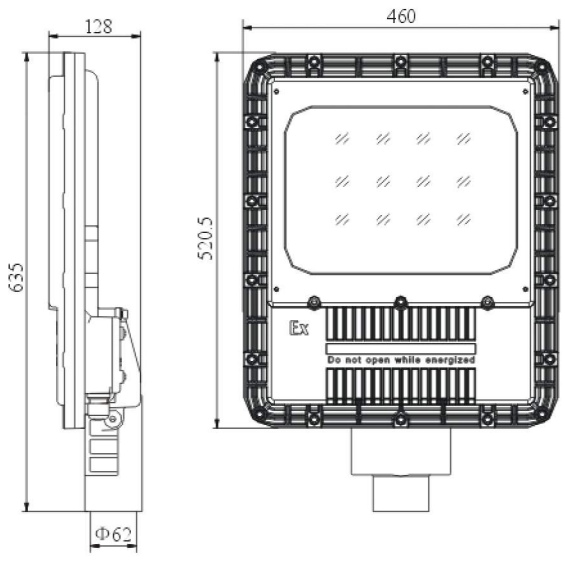




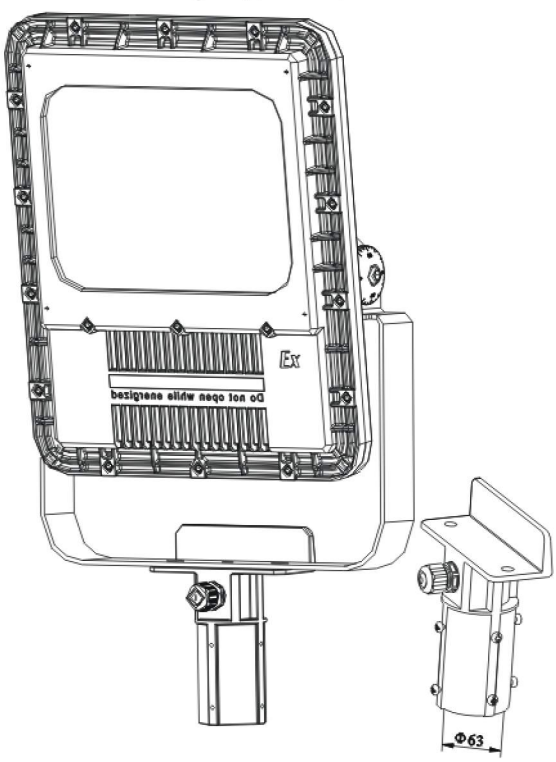
● Explosion-proof floodlight light fittings source for LED lights

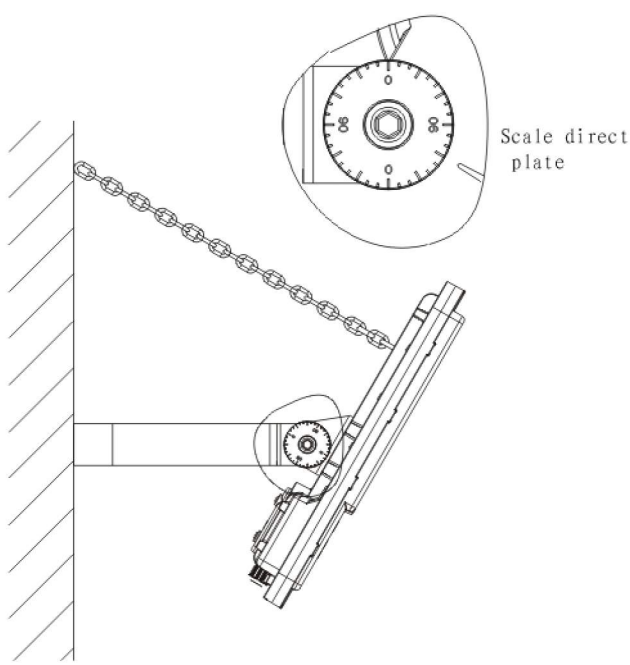


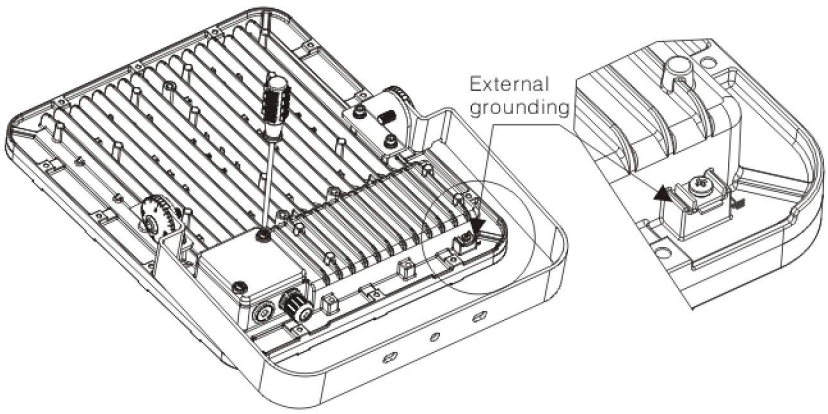
B—Floodlight type lamp

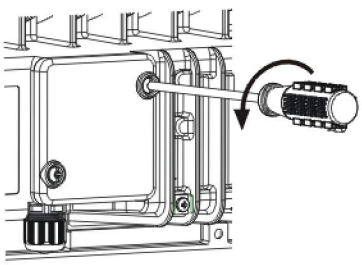


F—Street type lamp

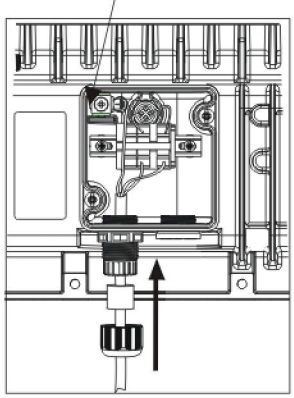


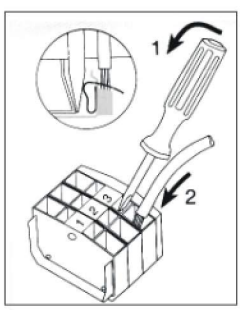






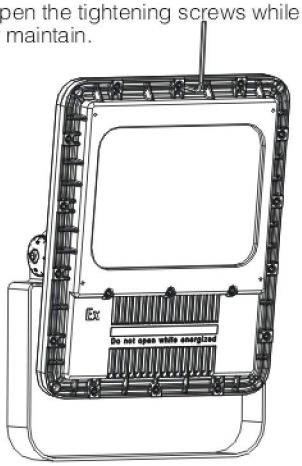
Internal earthing

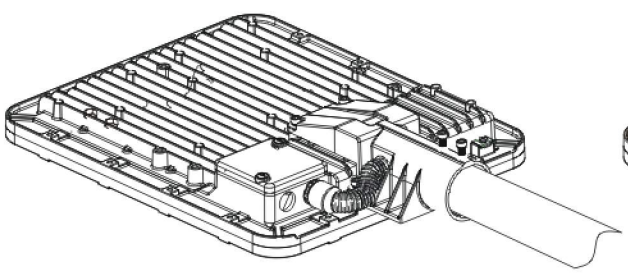


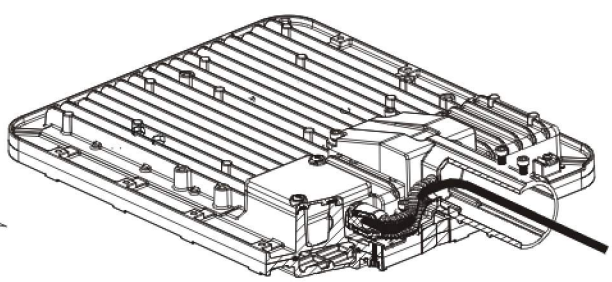


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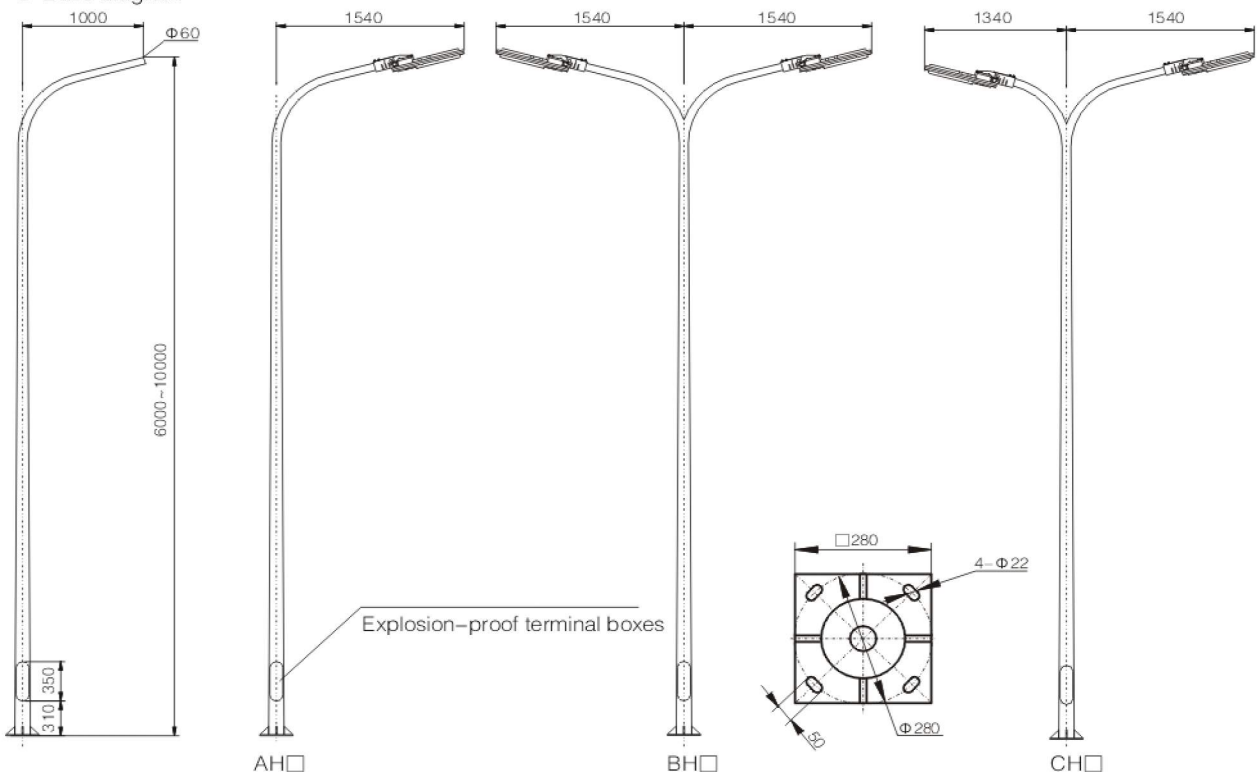
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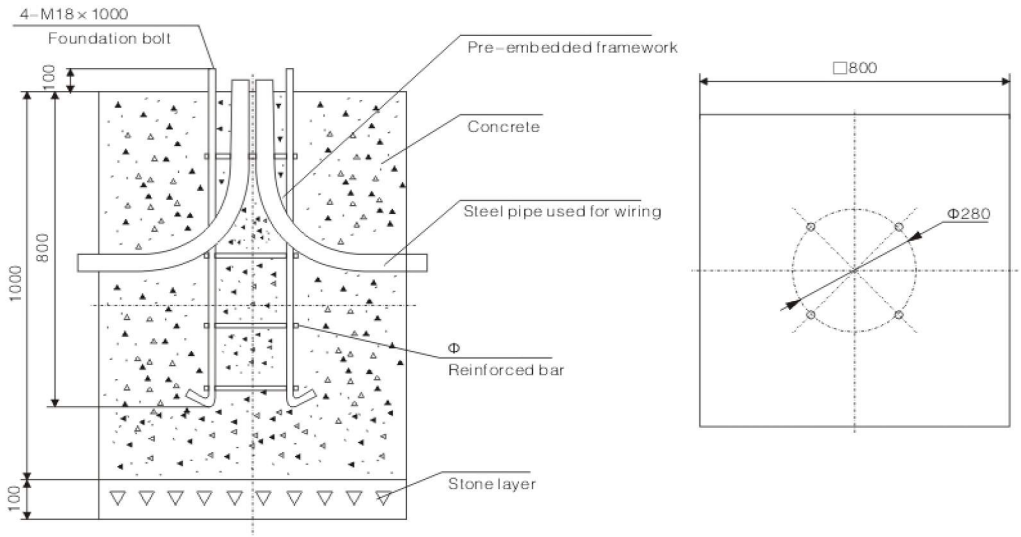


● Base diagram



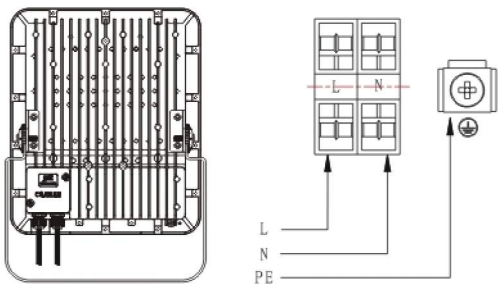
● Base diagram：

This base diagram is used for the lamp hole with height less than 10 meters.

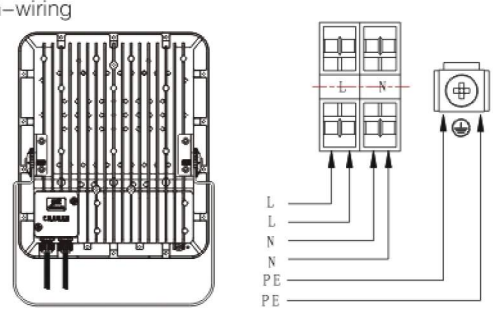


Wiring diagram for

Dead-end wiring



Though-wiring



Installation/operation

◎Transport and storage in original packaging only National safety , installations regulations and the generally accepted rules of engineering practice must be observed when erecting and operating this equipment..

◎In order to guarantee that the explosion-proof light fittings normal work and the security, the user must observe following stipulated:

●The series products can be applied in zone 1 and zone 2 of the explosive atmosphere class II , and the dust atmosphere zone 21 and zone 22 They canbe used indoors and outdoors as well.

●The ambient temperature is not lowe than -20℃,not higher than +55(40)℃.

●The should be used under the following atmospheric condition:
The pressure is 80kPa(0.8bar)~110kPa(1.1bar)
The air with normal oxygen content is typically 21%v/v.

Do not open while energized!
Must cool down for 30 minutes before open the light fittings!

◎When open the light fittings,that the flameproof thread is clean mustbe guaranteed in order to avoid affecting the explosion-proof performance and installation of the lightfitting

◎The terminal is Explosion-proof terminal,each terminal's in-out port has two terminals positions,for each positions only can insert one lead.

◎The cable must not be damaged; Cautious disposal of cable connection, for instance:

●The wire must be inserted in the terminal reliably;

●The wire does not allow to have the phenomenon of empty meets;

● The wire must not be damaged;

●The flameproof joints are not intended to be required.

●If a clearance hole is used for the mounting of the stopping plug, it shall have a diameter no greater than 0.7mm more than the largest normal thread size of the stopping plug being used.

●Explosion-proof floodlight light fittings sealing material (such as:seal ring、pouring sealant ect.) Made by silicone rubber, when use must consider the affect of chemical substances to the performance.

◎Caution:Clean only with a damp cloth!

Cable gland,stopping plug

◎Generally, only certified cable glands and stopping plugs are permitted for use.However, the explosion-proof performance after the coordinate use should not be lower than the explosion-proof performance of the overall product

◎The degree of protection of whole product will be reduced when the cable glands or stopping plugs which the degree of protection is lower than Ip66 are used;

◎Its installing and operating instructions should be observed if other cable glands are used;

◎Care should be taken to the cable glands which should be matched with the used cable outside diameter properly; sealing inserts appropriate to the cable diameter are used.

◎Not use cable entries system must use our company stopping plug to seal,diameter of stopping plug is fit to cable entries diameter intende.

◎In order to ensure the required minimum degree of protection , the bolts of cable glands, blanking plug and relevant sealing bolts are to be tightened down.



Over tightening of cable glands, blanking plug and relevant sealing bolts might impair the performance of protection .

Being operational

◎Be put into use It should be tested according to the stipulations given in principles before being put into use.

◎The right funcion and installation should be inspected complying with this operating instruction and other practical stipulations before being put into use

◎Its normal that the temperature of Its surface will rise.Don t touch the transparent parts for its higher temperature

◎It is normal that the metal halide lamp and high pressure sodium vapour lamp will keep from shinning and won,t be lighted at once while working ,after cooling down for 20 minutes,it will be lighted normally when the switch is turned on again .the hot starting should be avoid as far as possible so as not to make the bulb damage.

◎Choose the same model for the bulb.Changing the power and type of the bulb freely is prohibited.

Accessories/spare parts

Only original spare parts as well as original accessories made by Larson Electronics can be used.

Maintenance

◎Observes strictly your country control overhaul and standard. The spare parts which have the important effect to explosion-proof performance must be inspecd carefully When you take down or replace the components, the equipment must be power off; before turn off the switch and open the light fitting, must be refrigerated for 15 minutes! All the maintenance and repair must use the original component made by Larson Electronics

replacing and repairing should take by professional electrician!

◎The following points must be checked during maintenance:

- ●when cable entires sealing ageing,must be change in time.
- ●Compliance with permitted temperatures;
- ●Check if the built-in component is fixed reliably;
- ●Check if the earthing is well connected.
- ●Check if the glass cover and light fitting have flaw or damage.
- ●Check if all the seals are in the hermetic working state.
- ●Check if the flameproof Joint is damaged.

◎Notice: You should often carry through the maintenance to make the light fitting all right, checking at least one time each year.

Disposal/recycling

The respective valid national regulations for disposal of waste shall be observed when disposing of apparatus! We are pleased to answer any special questions you may have. Please contact your nearest service station.