

WO78H Low Intensity Single Obstruction Light (Type B)



Description:

Altiglo WO78H low-intensity stand-alone obstruction light can be used for marking obstacles which pose a threat to aircraft, such as telecom towers, buildings, wind turbines, airports, power transmission towers and general aviation warning purposes.

The energy-saving LED light is a direct replacement for incandescent fixtures, providing years of reliable and maintenance-free operation. Available in single, double, and optional solar drive package.

LED low intensity aeronautical obstruction lights to meet the demanding requirements of off-shore environmental conditions. The design is based on low power long life LED technology. The polycarbonate Fresnel lens concentrates and distributes LED light beams to output standard compliant intensity and distribution. The efficient optical system and low-energy circuit design make the light only consume 5 watts. WO78H aviation light complies with ICAO regulation, low intensity Type B.

With a G3/4" universal threaded hub on the bottom, WO78H can be mounted on a conduit or with Altiglo brackets designed for towers and buildings. There is a terminal block on its power board inside for wiring.

WO78H single aircraft warning light can be used on top of structures less than 45m. In most cases, multiple WO78H single low intensity aviation obstruction lights are installed in one or more horizontal levels for marking a structure's outline with medium intensity obstruction lights.



Features & Benefits

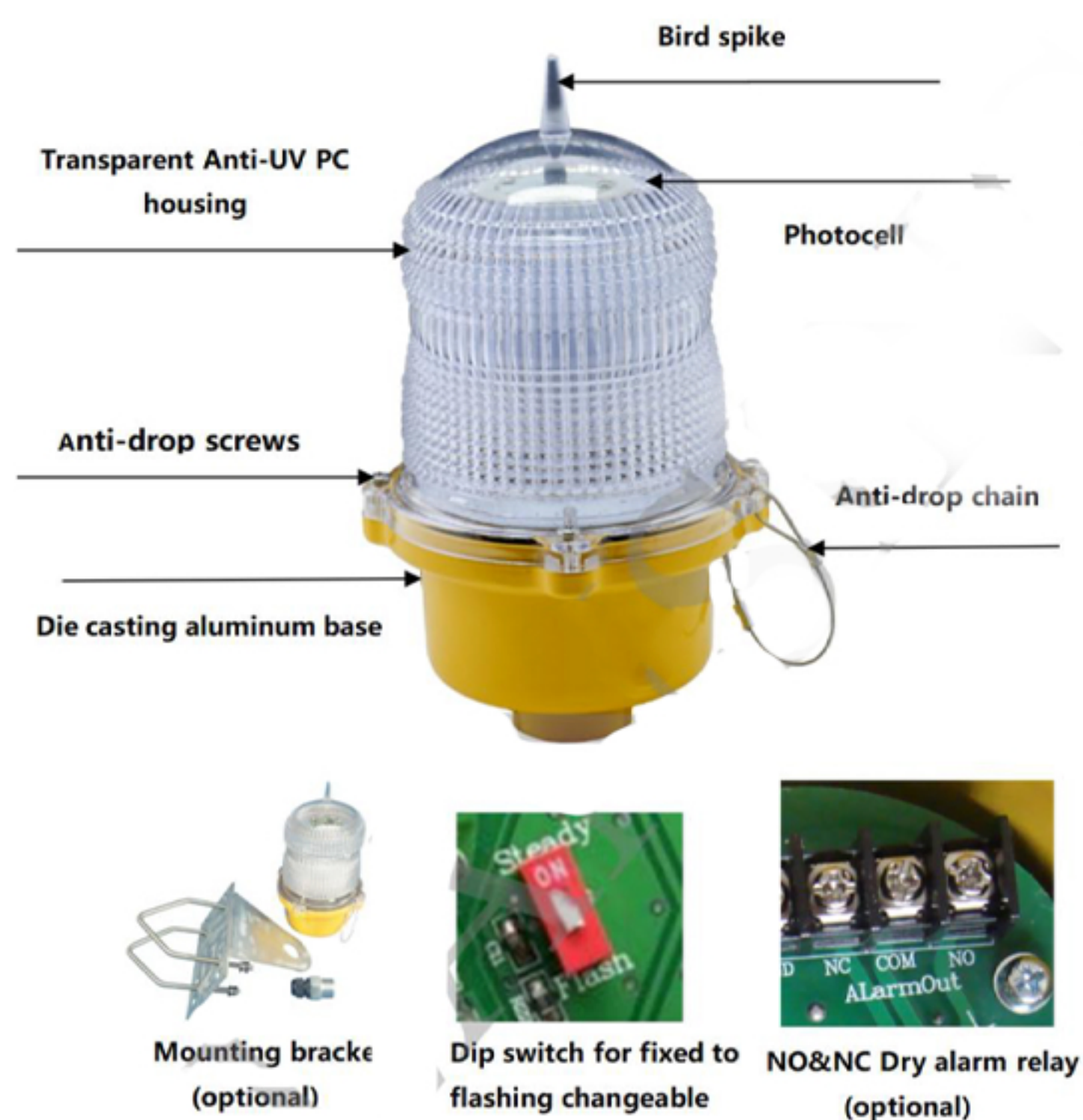
- Universal AC and DC voltage available
- Can be operated in steady-burning or flashing mode
- Lens made from durable, UV-stabilized LEXAN polycarbonate
- Die cast aluminum with aviation yellow powder coat finish and stainless steel hardware.
- Standard configurations come with 3/4 threaded fittings.
- LED constant current driven to extent LED lifetime.
- Multiple light elements in the source reduce the chances of a complete blackout which could be caused in case of a single source failure.
- All hardware of obstruction lights are made of corrosion resistant metals.
- Bird spikes for protection against droppings. • Photocell option for automatic activation at night
- No regular maintenance
- Uses 96% less power than an incandescent light
- With surge protection up to 2KV
- Excellent shock and vibration resistant
- No RF Radiations, EMC Compliant • Reversed Polarity Protected(DC Type)
- Corrosion resistant lamp & housing-suitable for off-shore use
- Flashing rate adjustable
- Both NO and NC dry alarm contacts are available, and it will give an alarm in case of power and light failure(optional). • Available both in single and double type
- 2 years warranty- the longest in the industry

Specifications



ITEM		W078H
ELECTRICAL CHARACTERISTIC	Effective Intensity	>32.5 Candela
	Vertical Divergence	10 Degree
	Horizontal out-put	360 Degree
	LED Color	Red, yellow, white, green or blue
	LED Lifespan	100,000 Hours
OPERATION	Woke mode	Flashing
	Flash Pattern	Flashing: 20/30/40/60FPM; Default: 40FPM; Steady burning
	Flash duration	670ms
	Photocell sensitivity	70-100 Lux
	Alarm type:	NO & NC, dry contact relay
POWER SUPPLY	Input voltage	85-265VAC, 50/60 Hz;12VDC; 24VDC;30-60VDC;
	Power consumption	5W(Steady burning)
MECHANICAL STRUCTURE	Lens	Polycarbonate, UV Stabilize
	Body	Die-casting Aluminum
	IP Ingress	IP65
	Weight	0.7KG
	Operating Temperature	-40°C ~ +55°C
	Storage Temperature	-40°C ~ +70°C
	Wire Connection mode	Threaded 3/4" bottom entry
	Relative humidity	0-95% RH non-condensing
	Wind speed	Up to 150mph(240kph)
OTHERS	Warranty	2 years
	Optional	Flashing pattern(20--60FPM) Built-in photocell NO & NC, dry contact relay

Advantage



Photocell



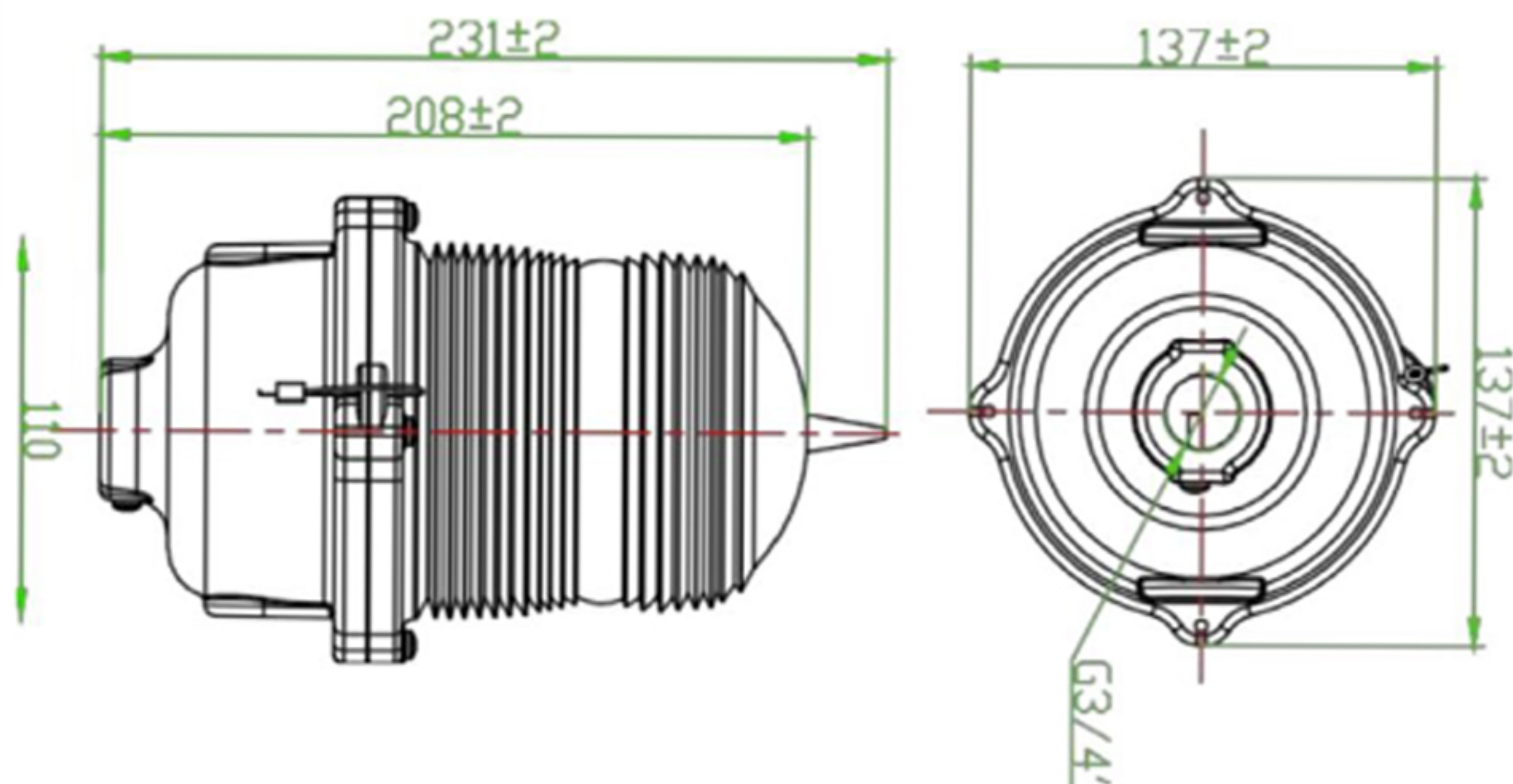
G3/4" pipe thread



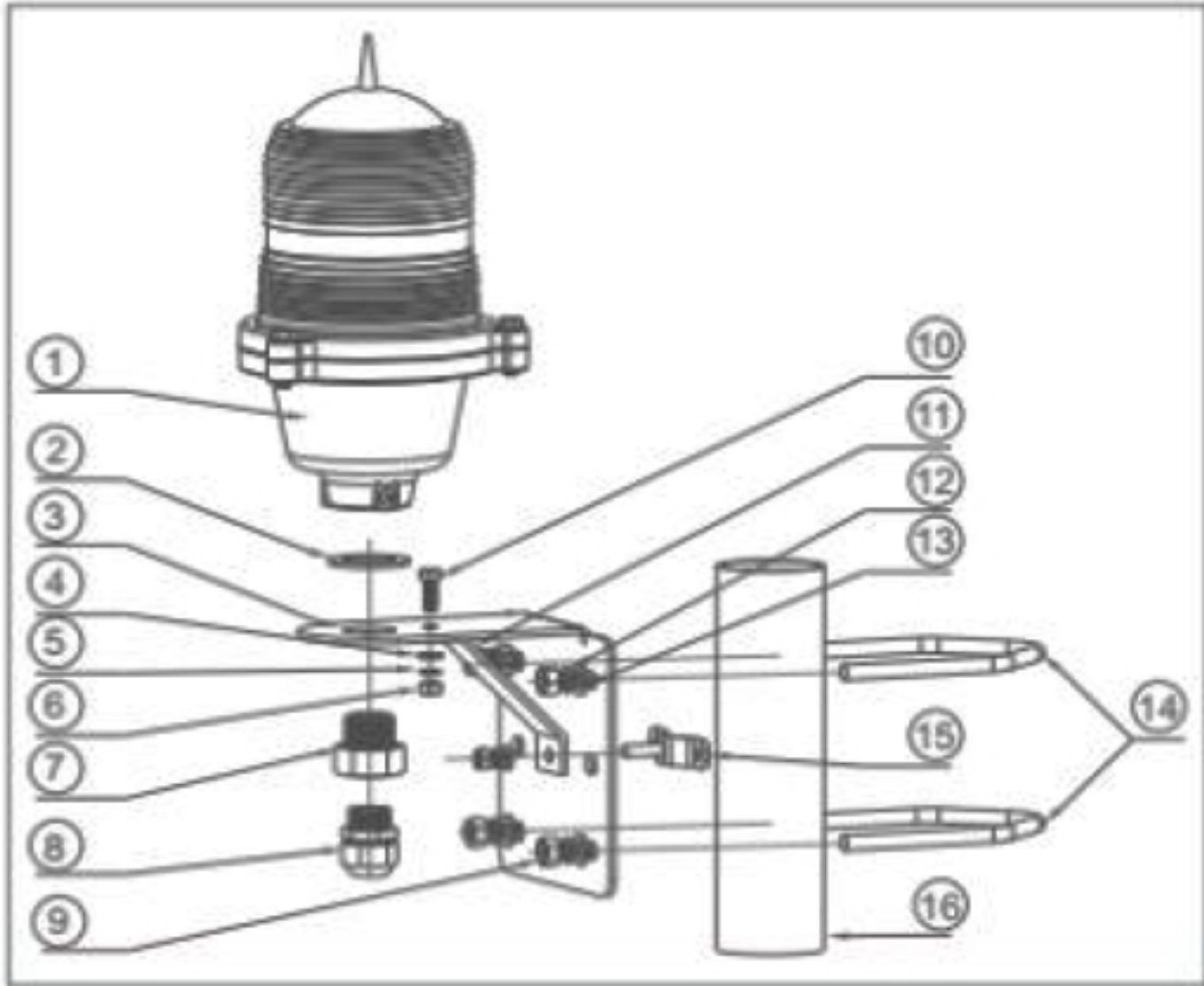
LED Bulb



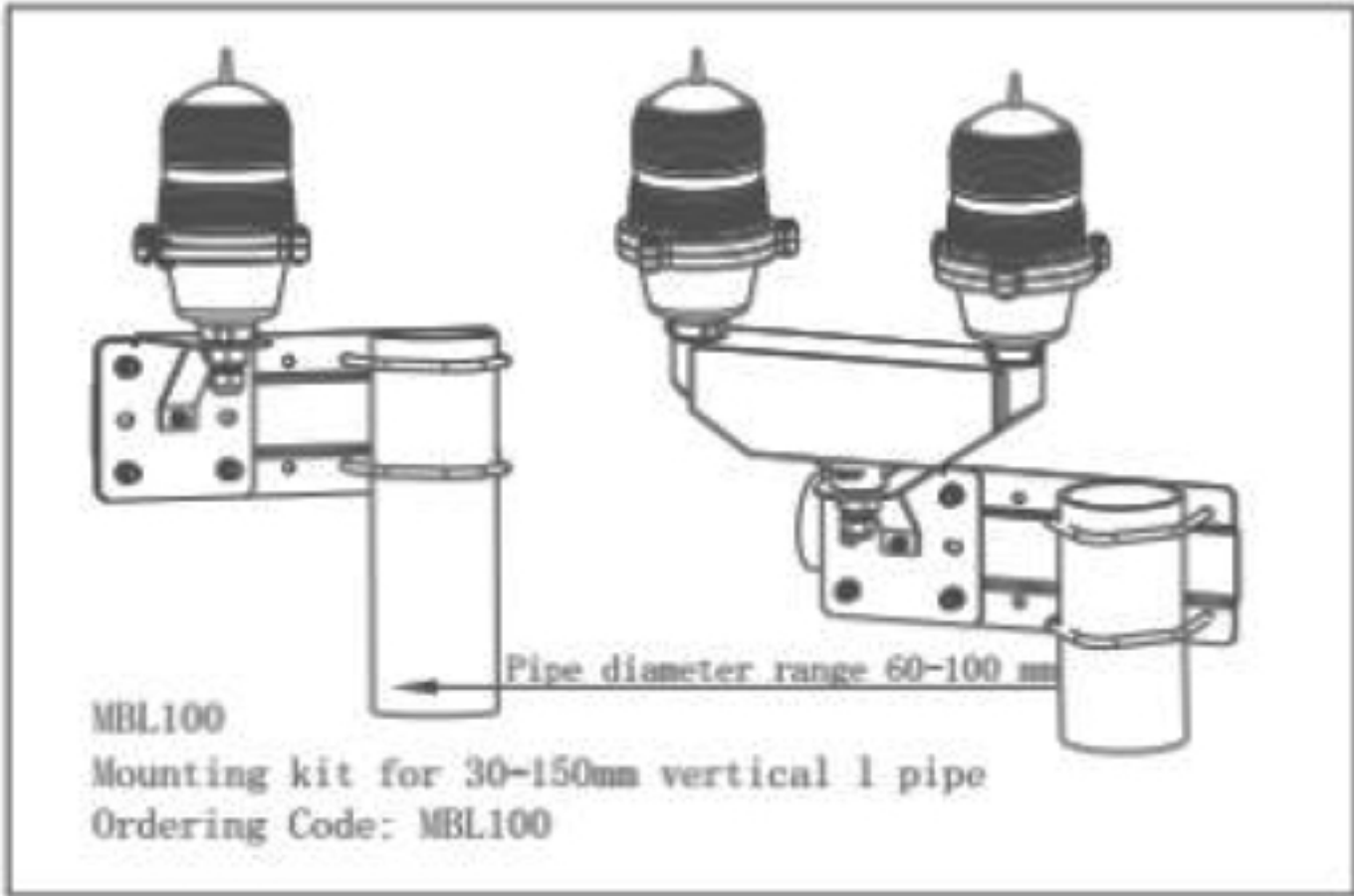
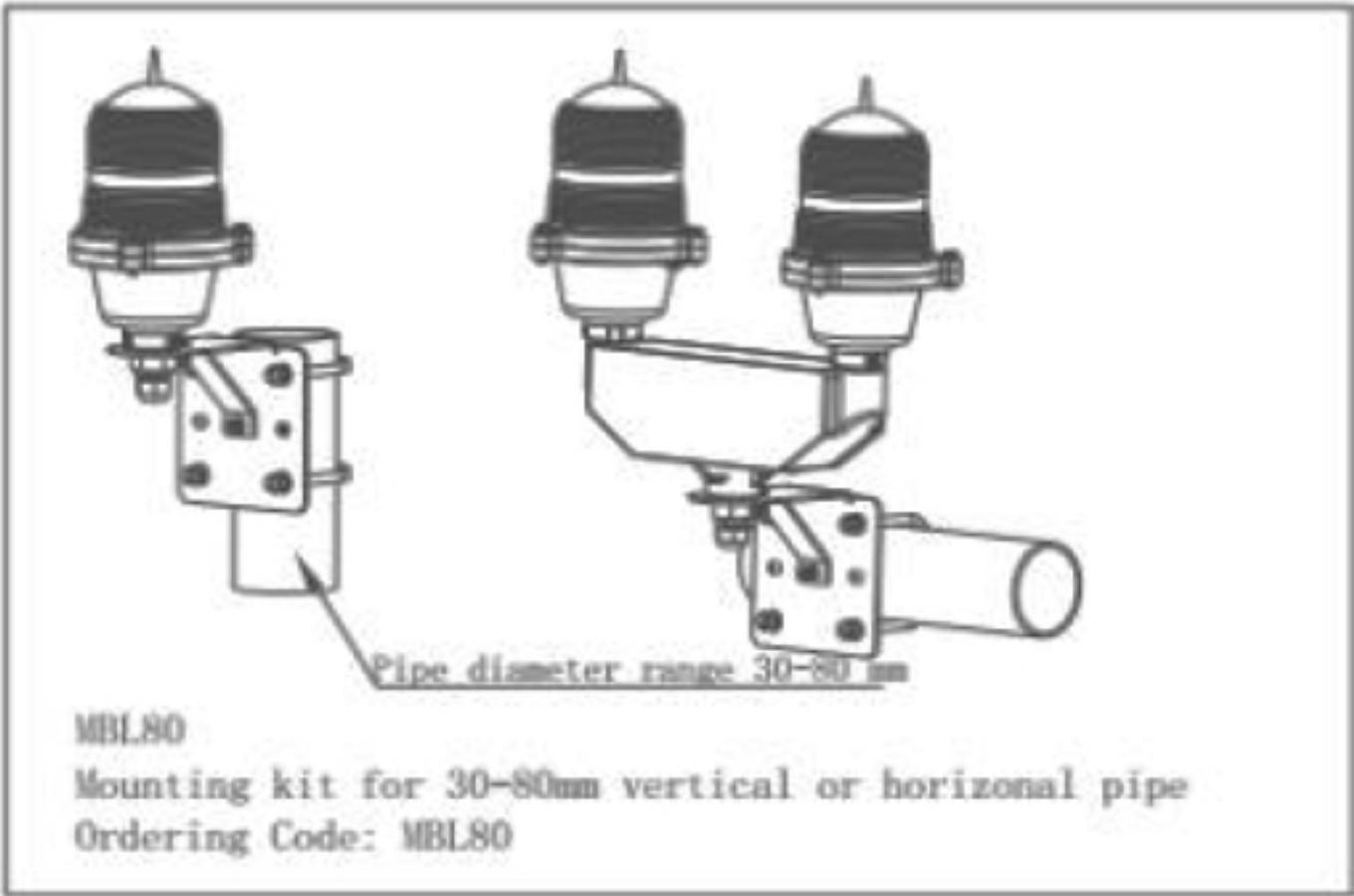
Mounting Dimension(mm):



Installation of the Light



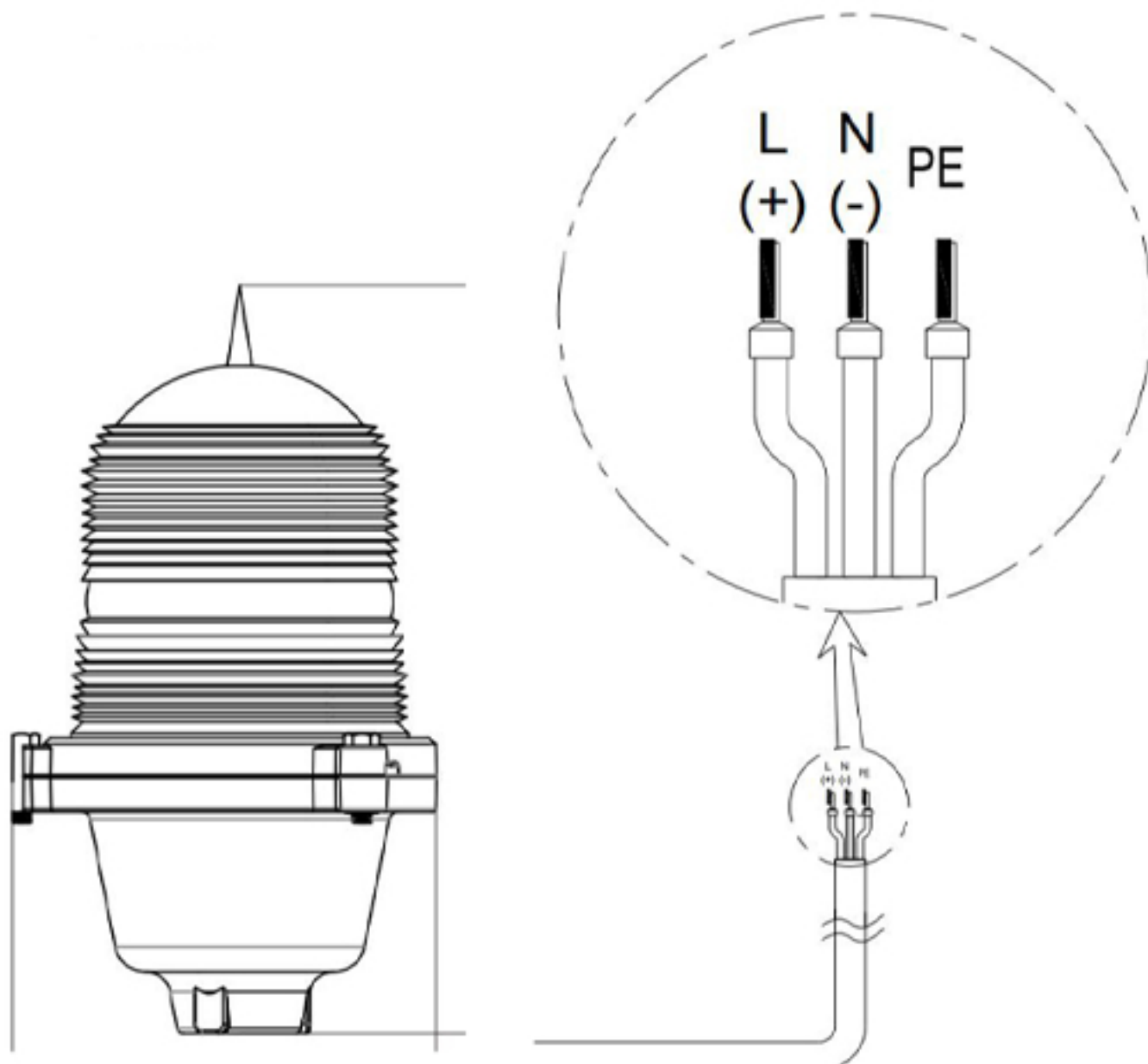
Single light mounting kit parts list			
Ref No	DESCRIPTION	MATERIAL	QUANTITY
1	Single lamp		1
2	Gasket	Silicon	1
3	Fixed board	SUS #304	1
4	6mm washer	SUS #304	2
5	6mm spring washer	SUS #304	2
6	M6 hex nut	SUS #304	2
7	3/4" joint	SUS #304	1
8	Cable waterproof joint (PG13.5)	PA66	1
9	M8 hex nut	SUS #304	4
10	M6 × 25 hex bolt	SUS #304	1
11	Support clip	SUS #304	1
12	8mm spring washer	SUS #304	4
13	8mm washer	SUS #304	4
14	M8 U-bolt	SUS #304	1
15	M6 Trapezoidal card	SUS #304	1
16	Pipe		1



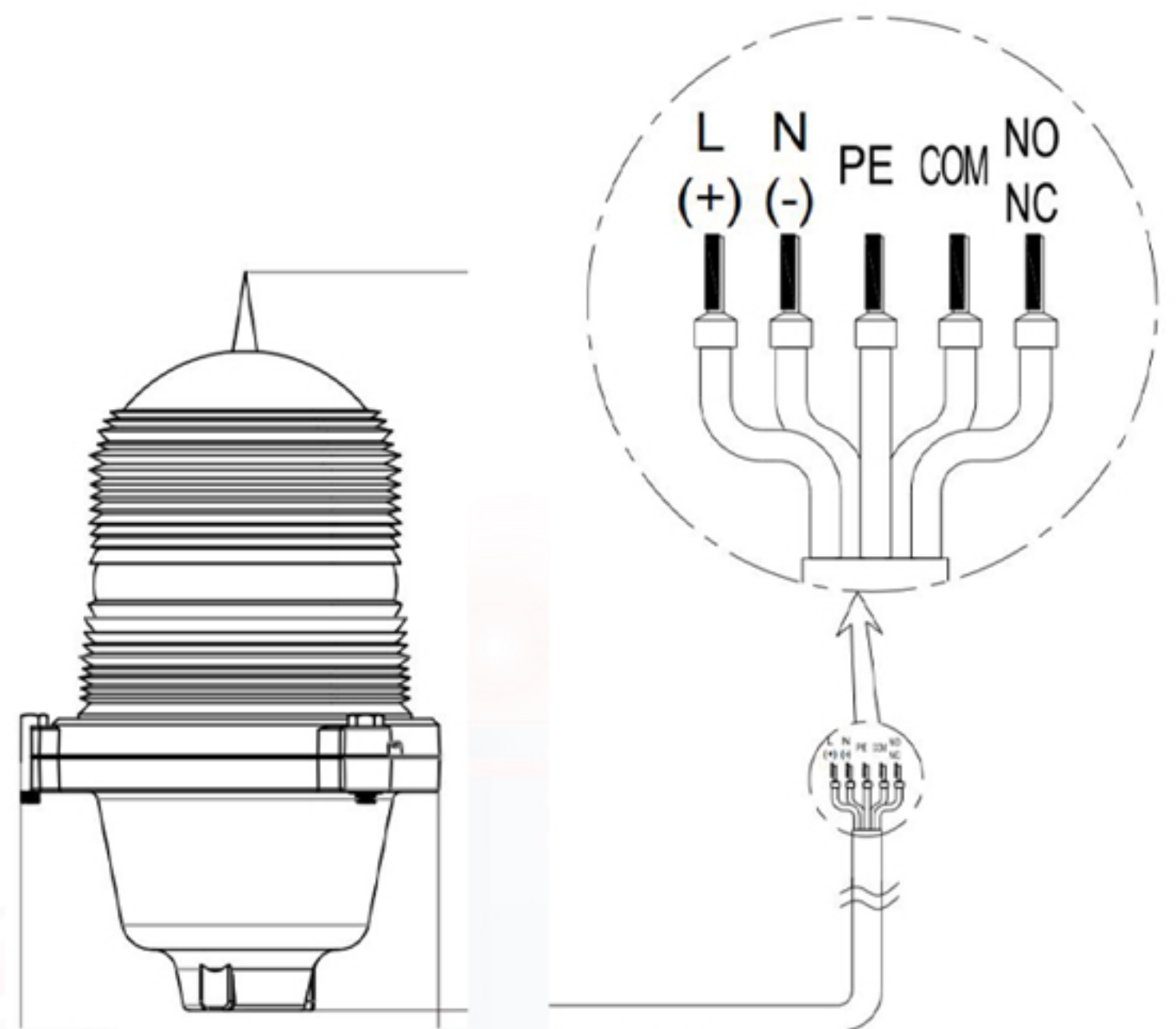
Installation and operation

- ① Secure the light on a smooth surface which has enough strength, if there is no mounting surface, we can customize special mounting bracket as request.
 - ② When installation, please stay away the nearby light source, at the same time, ensure the photocell do not cover by the near object.
 - ③ Make sure the power supply can match the rated power of light before connecting.
 - ④ Unfasten the screws between housing and light base and open the housing, then the terminals appear.
 - ⑤ According to the mark on the wiring label of the lamp lead wire, connect the power cable and the alarm wire correctly. Please pay attention to the polarity of the positive and negative poles for the DC voltage.
 - ⑥ After finishing the connection, fasten the housing to the light body tightly.
 - ⑦ Check whether the power cables are connected correctly before power on.
- A. If the lamp has built in photocell, remember to cover the photocell with a black cloths if you test the lamp in the daytime, then the lamp will start to work.
- B. If the lamp has GPS function, the fixture need to be kept in an open area outdoor and the GPS function will work after 5-10 minutes.

Wiring Diagram



Picture 1: Without NO & NC fault alarm function
The working voltage is according to the order

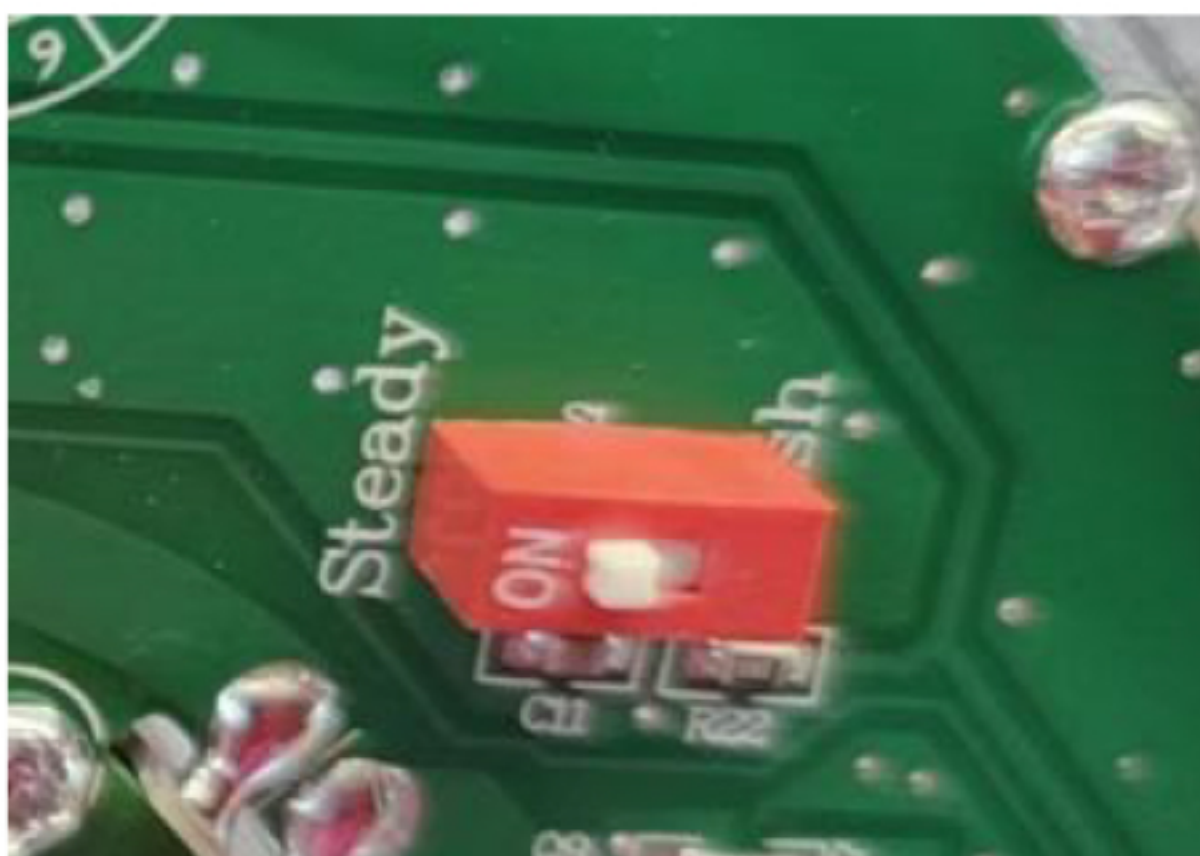


Picture 2: With NO & NC fault alarm function
The working voltage is according to the order

Operation

Steady burning and flashing changeable(optional)

- ① Unfasten the screws between lamp housing the body, and then take off the lamp housing
- ② You can see the PCB board inside the lamp and adjust the red dip switch (see attached picture)on the board

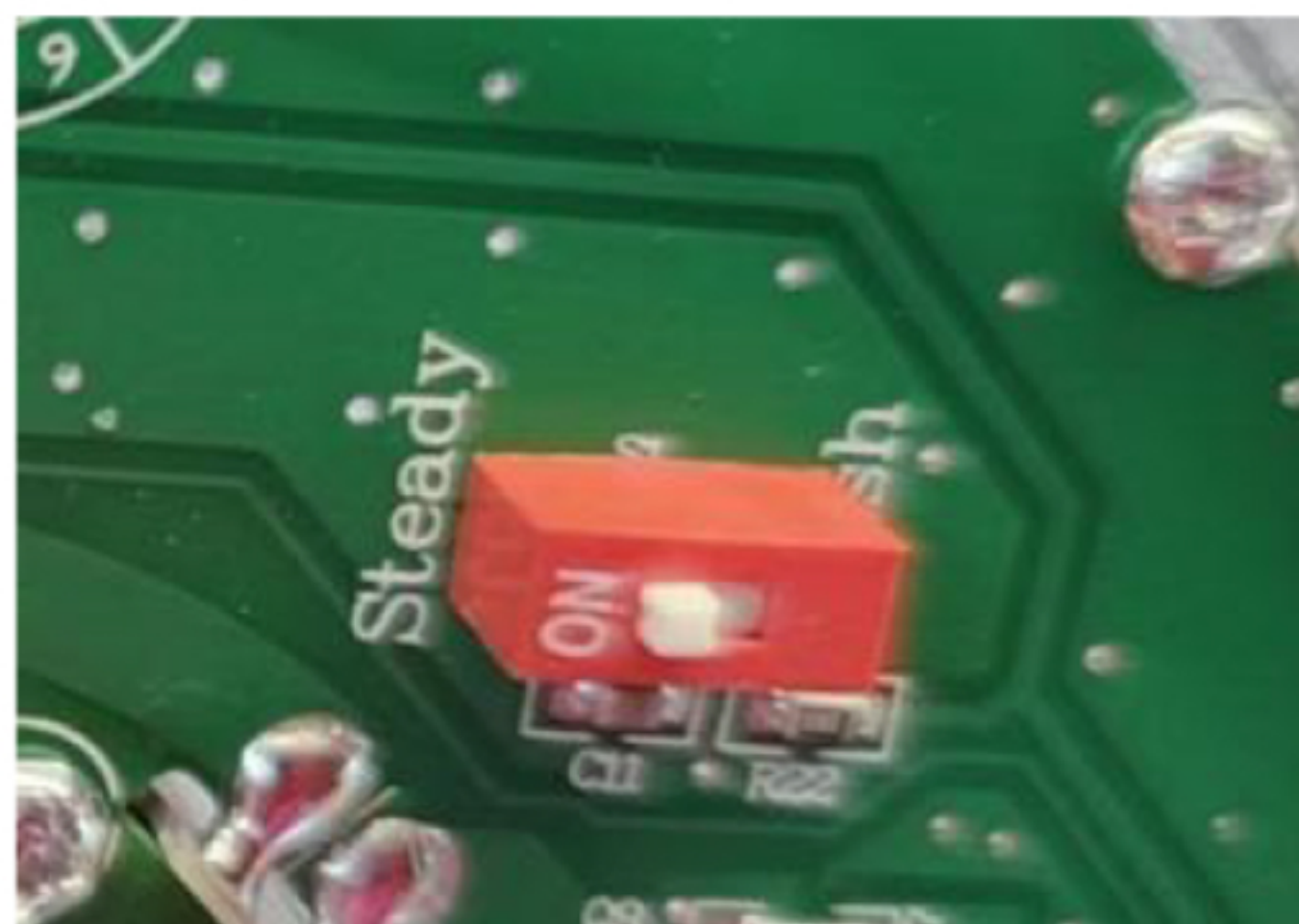


- ③ You can change the light from steady burning mode to flashing mode as your request



Steady burning/flash mode alternate, and flashing rate setting(optional):

- ① Unfasten the screws between lamp housing the body, and then take off the lamp housing
- ② You can see the PCB board inside the lamp and adjust the red dip switch(see attached picture)on the board
- ③ Adjust two white dip switches to "NO" position, the light will be steady burning mode
- ④ When the two white dip switches in other positions, the light will be in flashing mode from 20FPM, 30FPM, 40 FPM or 60FPM, see below: (FPM =FLASH PER MINUTE)

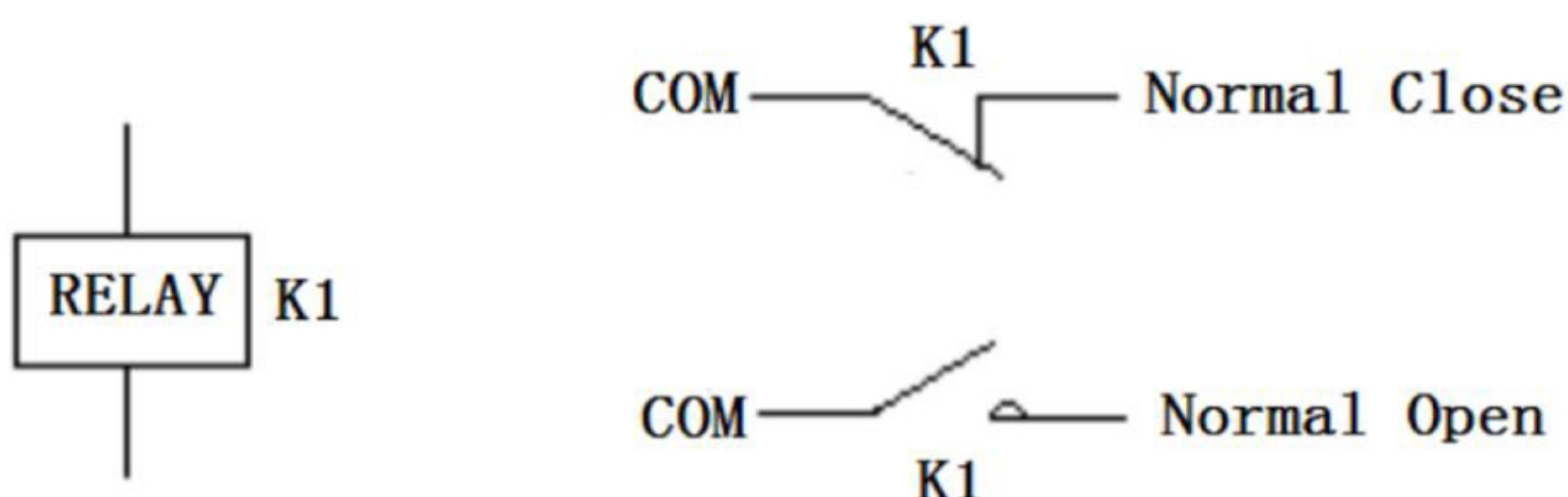


ON	2	1	FPM
1	0	0	Steady
2	0	1	60
3	1	0	30
4	1	1	20

- ⑤ Adjust the dip switches according to above diagrams based on your request

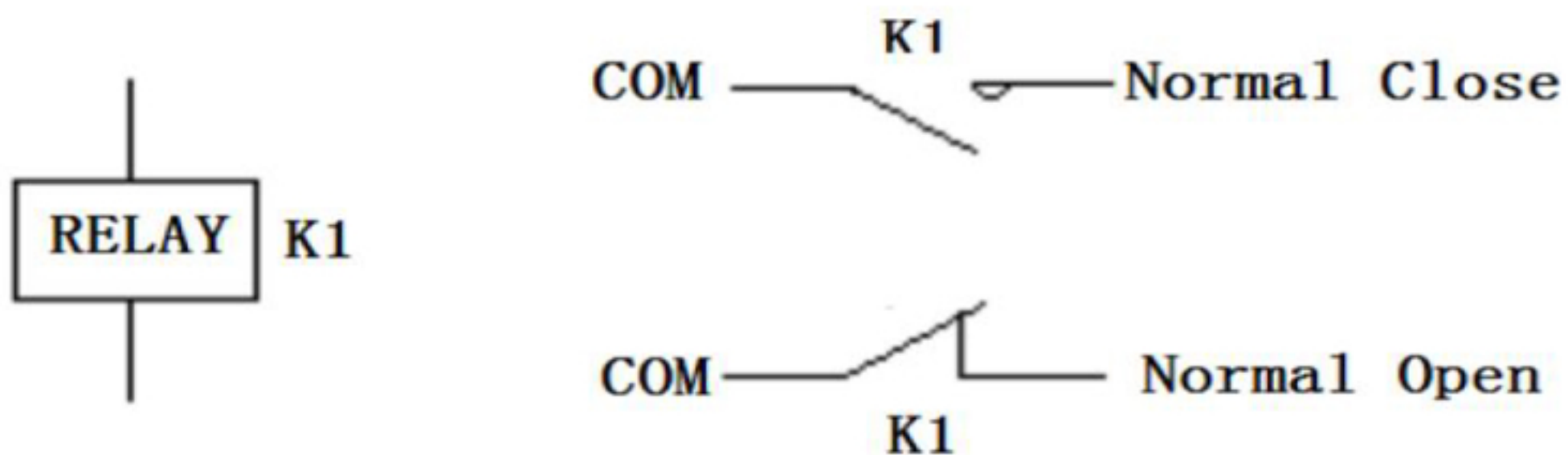
Fault Alarm Function(optional)

When the lamp is not receiving a power supply or a lamp failure: The relay has no action, "common terminal" and "normal close terminal "close, as below:





The lights are connected to the power supply and are working properly: Relay action, "common terminal" and "normal open terminal" close, as below:



If there is no power access, or failure are received "disconnect" signal, the alarm signal line connected to the "common" + "normally open" If the "closed " signal is received when there is no power supply access or fault, the alarm signal line is connected to "common" + "Normal closed"

Note: The LED fault alarm of the light, please inform the lamp manufacturer at the time of purchase.

Fault detection function description

When the light is not operate or When more than 25% of the LED beads are in failure, The lamp will have a fault alarm signal output.



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How to charge battery :

If store the light for more than 3 months in your warehouse, then the light battery needs to be charged, there are total two methods to charge the battery:

- ① Open the box and take out the light, and put the light under the sunlight directly, and open the battery switch, charge the battery by sun energy for more than one day. Turn off the battery switch after a full charge.
- ② Open the box, take out the battery, use external constant current power supply to charge the battery, and require to adjust the switching power supply to 12V charging voltage, 2.5A charging current, after adjustment of the switching power supply to the above voltage and current, then start to charge the battery for a period of time when the charging current is gradually reduce to close to 0 after stop.