



IP65 Waterproof Fluorescent Luminaire Instruction Manual



Important Safeguards



PLEASE READ CAREFULLY AND FOLLOW ALL INSTRUCTIONS FOR YOUR OWN SAFETY.



WARNING - To reduce the risk of fire, electric shock, or

serious personal injury:

When using the luminaire, the basic safety precaution should be followed at all times, including the following:

- An un-switched AC power supply of 120VAC or 277VAC is required.
- Always make sure the power is off before proceeding with assembling, disassembling, relocating, servicing, or cleaning.
- Do not use this product for any purpose other than its intended use.
- Only use 2 x T8, 2' or 4' fluorescent lamps with the luminaire.
- Make sure all electrical connections conform to the National Electrical Code and all applicable local regulations.
- Do not let power supply cords touch hot surfaces.
- Do not mount near gas, electric heaters or heated air outlets.
- The emergency ballast includes a battery pack, which is the rechargeable Ni-Cad type and should be recycled or disposed properly. Battery acid can cause burns to skin and eyes. If acid is spilled on skin or eyes, flush acid with fresh water and contact a physician immediately.
- Installation and servicing should only be performed by qualified service personnel.
- The luminaire should be mounted in locations and at heights where it will not be readily tampered by unauthorized personnel.
- The electricians or end users need to ensure the luminaire's compatibility before final installation.

● The general design of the risk assessment

Item	Possible risks	Solutions
1	The earth connection with the screw may not tight enough or the screw will get loose after some time, which will cause the risk of poor earth connection and electric shock.	Remove the insulated coating of the connection area, add a spring washer between the screw and the connection surface which will make the connection tight enough and the screw will not easy to get loose. 100% testing the resistance of connection by test machine after assembling.
2	The lighting fixture especially the fluorescent tube may not work well in low temperature situation.	Add a heating board with a temperature sensor switch, when the temperature inside the fixture is below 5 degree the sensor switch will switch on the heating automatically and automatically and switch off the heating.

Specifications

PC diffuser, GRP housing:									
Model	Voltage	Power	Frequency	L	W	H	LF	Type	Emergency Time (Mins)
FL02H218-4	120/277V	2x17W	60Hz	670	161	102	472	Standard	0
FL02H236-4	120/277V	2x32W	60Hz	1273	161	102	956	Standard	0
FL02H218-4-H	120/277V	2x17W	60Hz	670	161	102	472	Standard +heating	0
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FL02J218-4	120/277V	2x17W	60Hz	670	161	102	472	Emergency + heating	>90
FL02J236-4	120/277V	2x32W	60Hz	1273	161	102	956	Emergency + heating	>90

1. Diffuser: polycarbonate (PC).
2. Housing: Glassfibre reinforced polyester (GRP).
3. Gear Tray: painted iron plate, which all the electric components are installed on.
4. Silicon gel gasket and PC (or stainless steel) clips ensure a high Ingress Protection for the complete fluorescent luminaires.
5. PG13.5 waterproof cable gland available for cable through both ends of the housing.
6. The luminaire is designed for use outdoor or in wet locations.
7. The automatic heating system is used to ensure the luminaire work well under arctic weather condition. The heating system will start working automatically when internal temperature of the emergency luminaire is on or below 5°C +/- 3°C and will stop working when the temperature reaches up to 20°C +/- 5°C.

Installation Instructions

⚠ CAUTION - Before installation, please always make sure the power supply is disconnected.

Electric Connection:

- Please use UL recognized power cord, SJTW, No. 18AWG for electric connection.
- The strain relief set (PG13.5 waterproof cable gland) should be provided at both ends of the luminaire.
- After connection, the end of conductors should not be exposed out of the terminal block.

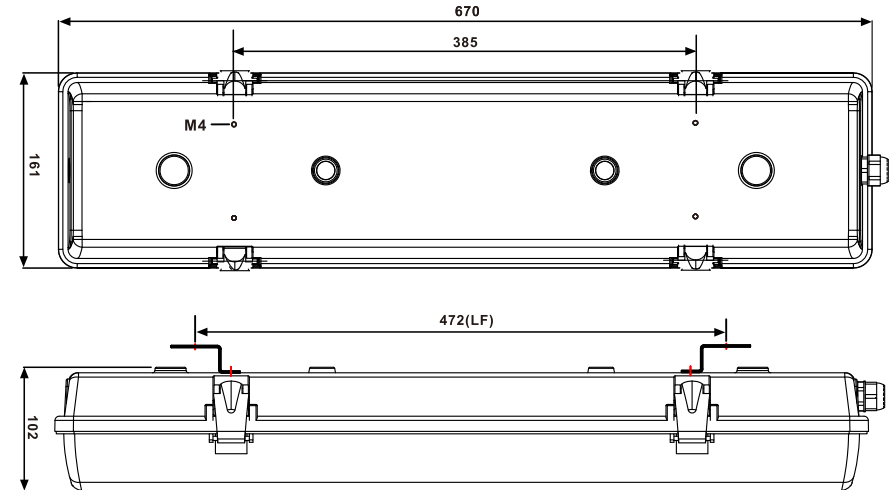
Wiring Diagram: Input: 120/277V

For FL02H218-4 (LYS-2) FL02H236-4: (LYS-4)		N = Neutral ⊕ = Ground L = 120/277VAC Normal Light (Switched)
For FL02H218-4-H (LYS-2) FL02H236-4-H: (LYS-4)		L3 = 277VAC Heating (Un- Switched) N = Neutral ⊕ = Ground L1 = 120VAC Heating (Un- Switched) L2 = 120/277VAC Normal Light (Switched)
For FL02I218-4 (LYS-2-E) FL02I236-4: (LYS-4-E)		L3 = 277VAC Emergency (Un- Switched) N = Neutral ⊕ = Ground L1 = 120VAC Emergency (Un- Switched) L2 = 120/277VAC Normal Light (Switched)
For FL02J236-4: (LYS-4-E-H)		L2 = 120VAC Emergency (Un-Switched) L3 = 277VAC Emergency (Un- Switched) N = Neutral ⊕ = Ground L1 = 120/277VAC Normal Light (Switched) L4 = 120VAC Emergency heating (Un-Switched) L5 = 277VAC Emergency heating (Un-Switched)
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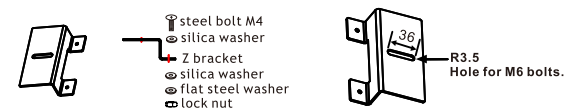
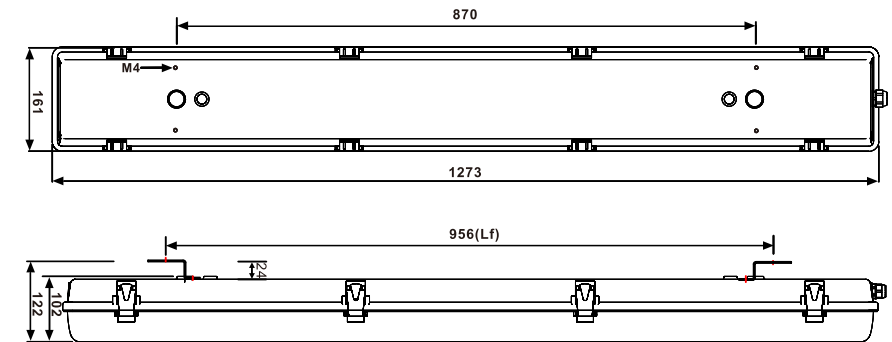
Note: If the end user needs the luminaire to go into the emergency mode only when the mains power is failed, the end user should install an external switch to the input terminal block. Turn off the external switch, the normal operation stops (two lamps are turned off), but the battery keeps being charged. Only when the mains power is failed, the luminaire will go into emergency mode (one lamp is lit at a reduced output).

Mounting: Unit: MM

2x17W



2x32W



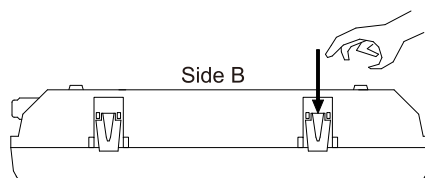
Lamp Replacement:

Note: open the clips w/o retainer connection first, then open two clips with retainer connection.

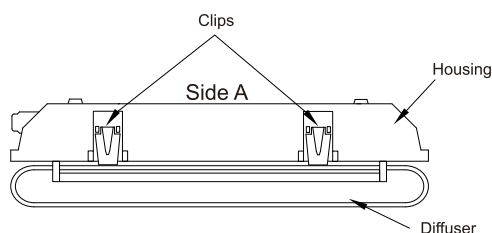
Side A: All the clips w/o retainer connection

Side B: Two clips on two ends with retainer connection.

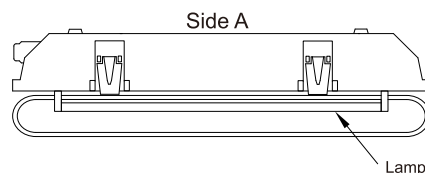
Step 1: Slip open the PC or Steel clips



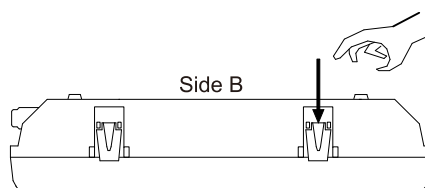
Step 2: Suspend the diffuser



Step 3: Install or replace the lamps



Step 4: Close the diffuser and push inward the clips



Testing and Maintenance

For emergency (or emergency + heating) luminaires, the following testing and maintenance shall be executed:

Press the Test Switch (TSW) to interrupt the power to AC ballast and to force the luminaire into emergency mode, one lamp is now being lit at a reduced light; the LED Signal Lamp (LSL) turns off in emergency mode. After releasing the TSW, the luminaire returns to normal operation after a momentary delay, two lamps are lit, the LSL turns on.

Note: If the end user needs the luminaire to go into the emergency mode only when the mains power is failed, an external switch should be added on the input terminal.

After installing the external switch, the luminaire need to tested (both on and off status) if it complies the below situations:

- When the mains supply is on:

- a) Turn on the switch, the luminaire is in normal mode: two lamps are lit, the LSL is lit and the battery is being charged.
- b) Turn off the switch, the luminaire is in normal mode: two lamps are off, the LSL is lit and the battery is being charged.

- When the mains supply is failed:

No matter if the switch is turned on or off, the luminaire is in emergency mode. One lamp is lit at a reduced output. The LSL is off and the battery is being discharged.

Initial testing - allow the luminaire to be charged approximately 1 hour, and then press the TSW to conduct a short discharge test. Allow a 24-hour charge before conducting a one hour test.

Monthly - conduct a 30 second discharge test by pressing the TSW (LSL turns off). One lamp should operate at a reduced light.

Annually - conduct a full 1 hour discharge test. The luminaire should operate as intended for the duration of the test.

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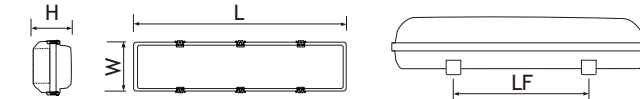
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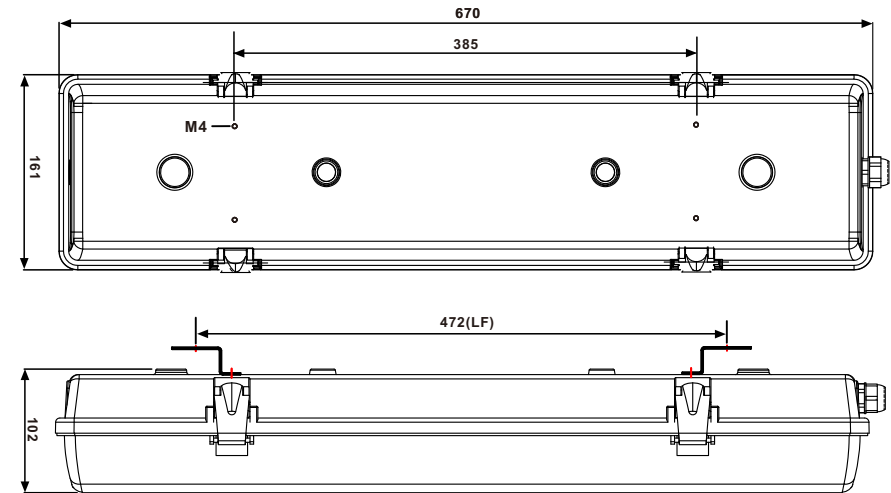
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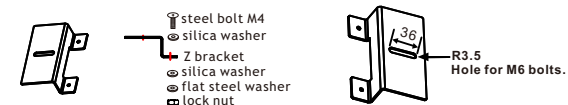
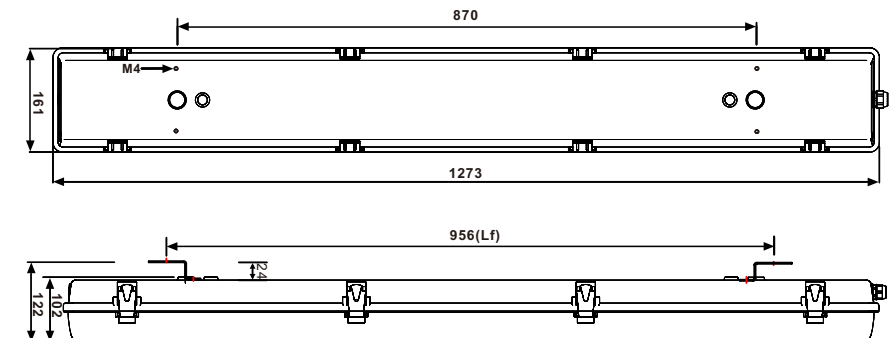
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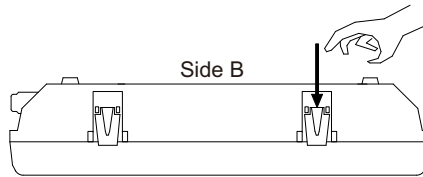
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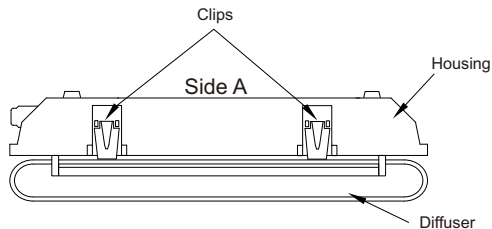
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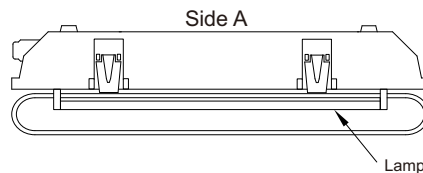
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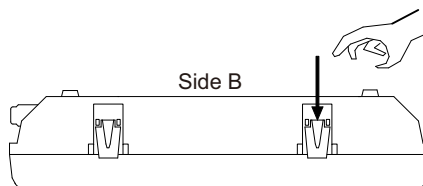
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