

# Operating Instructions

## Hazloc LED Lighting

### Model L2106



# THT-EX

Drawing No: RD-EX-L2106-A

Revision Level: A1

Date: 2022-09-20

Top Hi-Tech Co., Ltd.  
9F, No. 1, Zhongshan Rd.,  
Tucheng District,  
New Taipei City, 236 Taiwan

Website: [www.tht-ex.com](http://www.tht-ex.com)  
TEL: +886 2 22671234  
FAX: +886 2 22691166  
e-mail: [sales@tht-ex.com](mailto:sales@tht-ex.com)



## Contents

1. General Safety Instructions .....	1
2. Intended Field of Application.....	1
3. Technical Data .....	2
4. Model code.....	3
5. Dimension .....	3
6. Assembly and Installation .....	3-6
7. Maintenance .....	6
8. Accessories and Spare Parts .....	6
9. Transport, Storage and Disposal .....	7

## 1. General Safety Instructions

### ⚠ WARNING

This manual contains basic safety instructions to be observed during installation, operation and maintenance of the apparatus, and for properly and safety run of the apparatus according to its performance data. Any damage of the apparatus may result explosion protection null and void. This manual represents the most relevant information about the product, applicable codes and regulations shall supplement it. Non-observance will endanger persons, plant and the environment. The person in charge is required to secure its employment in the industrial unit. Any improper usage, as well as non-compliance with the rules under this manual, shall release the manufacturer's all responsibilities.

**WARNING - Potential Electrostatic Charging Hazard. Please wipe with a damp cloth when cleaning.**

**WARNING - The luminaire does not have a test port fitted.**

**WARNING - The gasket not to be replaced in the field.**

### 1.1 Before assembly/commissioning:

- ☞ Read through the operating instructions.
- ☞ Give adequate training to the assembly and operating personnel.
- ☞ Ensure that the contents of the operating instructions are fully understood by the personnel in charge.
- ☞ The national installation and assembly regulations (e.g. IEC 60079-14) apply.

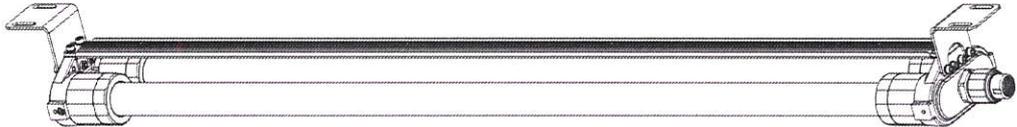
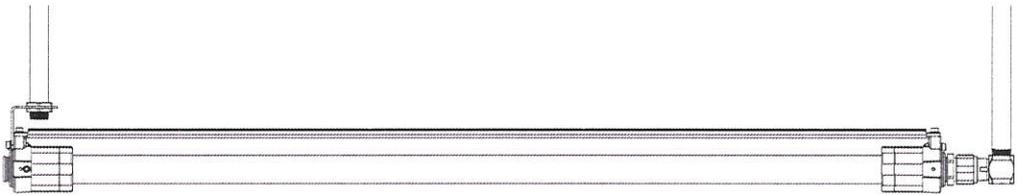
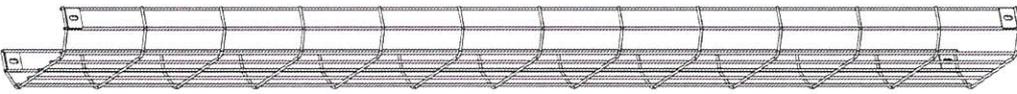
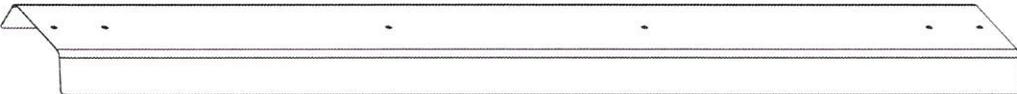
### 1.2 When operating the device:

- ☞ Ensure the operating instructions are made available for the person in charge on location at all times.
- ☞ Observe these instructions, other working instructions and national safety regulations.
- ☞ Verify the implementation of safety instructions.

## 2. Intended Field of Application

The Hazloc LED Lighting, Model L2106 is intended for using in gas explosive atmospheres (Zone 2 according to IEC 60079-10-1) and dust explosion hazards (Zone 21 according to IEC 60079-10-2). The use in other potentially explosive atmospheres does not correspond to the designated use and is therefore not allowed. The apparatus is designed for using in indoor and outdoor environments.

### 3. Technical Data

Item	Description
Explosion Protection IECEX Gas Explosion Protection Dust Explosion Protection ATEX Gas Explosion Protection Dust Explosion Protection	IECEX UL 22.0017X Ex nR IIC T6 Gc Ex tb IIIC T85°C Db UL 21 ATEX 2666X (Type Exam) / UL 21 ATEX 2665X (EU Type) CE II 3 G Ex nR IIC T6 Gc CE0035 II 2 D Ex tb IIIC T85°C Db
Rated Voltage	100-277 Vac, 50/60 Hz
Luminaries Wattage	18W (2ft) / 36W (4ft) / 20W (2ft yellow tube) / 40W (4ft yellow tube)
Color of LED light	Warm white / Natural white / Daylight / Cool white / Yellow tube
Power Factor	cos φ ≥ 0.9
Ambient Temperature Range	-20°C ≤ Ta ≤ +40°C
Degree of Protection	IP67
Mounting Type / Weight	Ceiling/Wall Mounting Bracket
	
	5.9(4ft) / 4.1(2ft) kg
Mounting Type / Weight	Straight Electrical Tube
	
Optional Accessory	Guard
	
	Reflector
	



### 4. Model Code

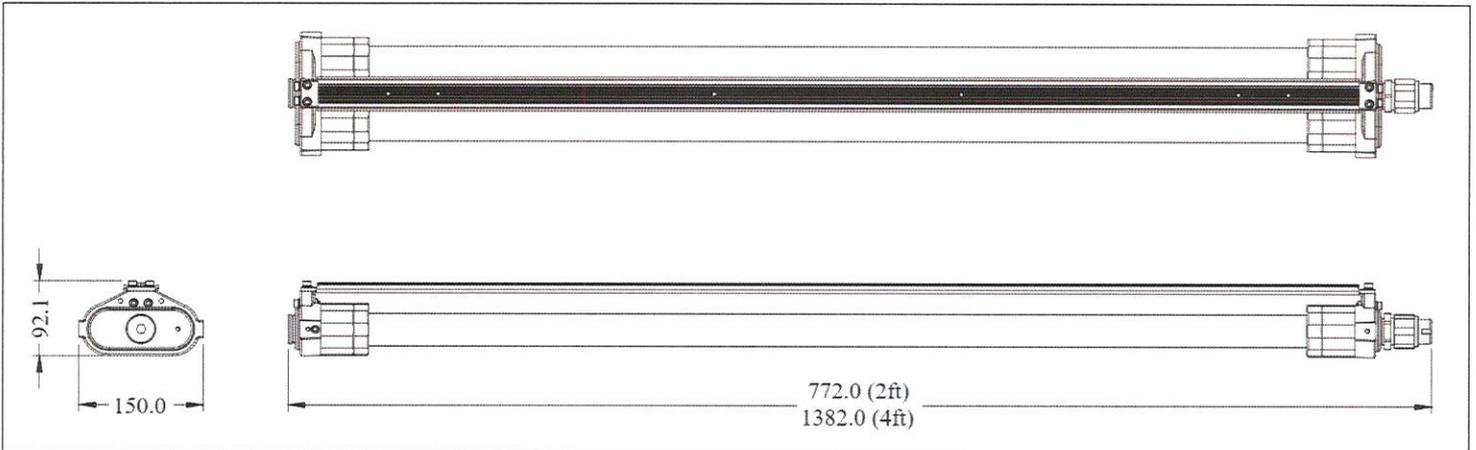
THTH2106①D②H③

① : C= 2ft /D= 4ft

② : W= Warm white /N= Natural white /D= Daylight /C= Cool white /Y= Yellow tube

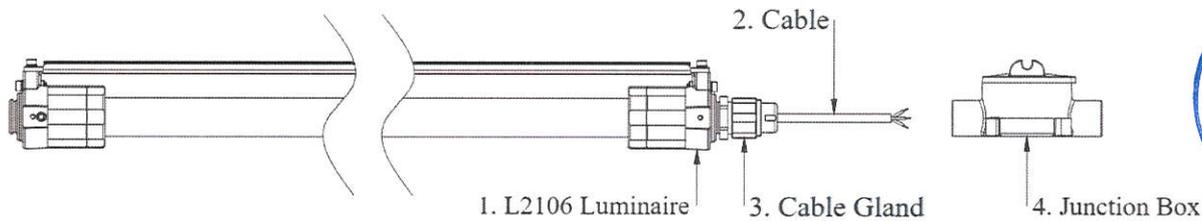
③ : A8= 18W(2ft) /C6= 36W(4ft) /B0= 20W(2ft yellow tube) /D0= 40W(4ft yellow tube)

## 5. Dimensions (All Dimensions in mm)



## 6. Assembly and Installation

### 6.1 Electrical Connection



#### Overview of Electrical Connection

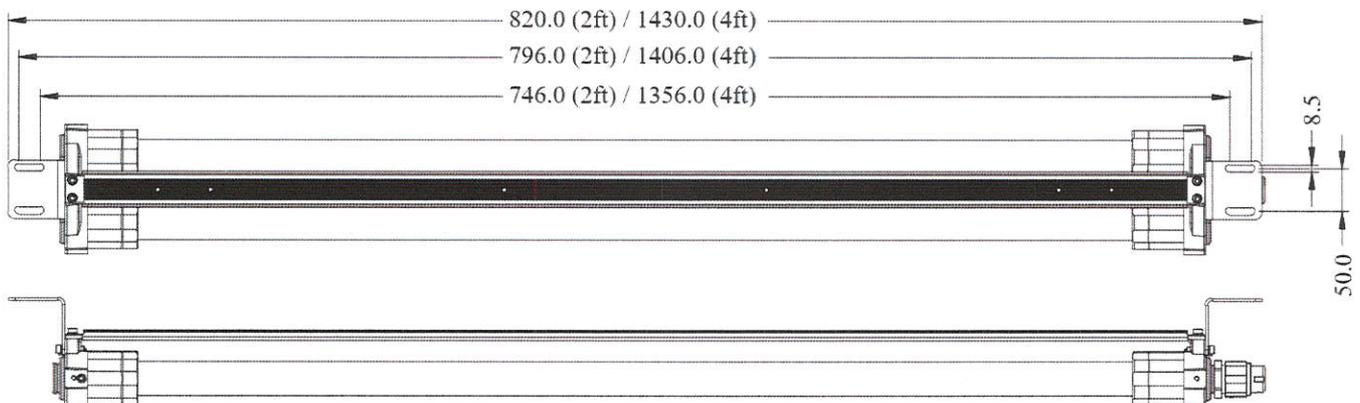
1: L2106 Luminaire	2: Cable	3: Cable Gland	4: Junction Box (Provide by customer)
--------------------	----------	----------------	---------------------------------------

- For luminaire with Ceiling/Wall Mounting Bracket: Insert the Cable (2) into the Junction Box (4) (provide in the field).
- For luminaire with Straight Electrical Tube Mounting Bracket: Insert the Cable (2) through the conduit into the Junction Box (4) (provide in the field).
- Fix and introduce the wires of luminary with the terminal post of Junction Box (White-wire connects to Neutral; Black-wire connects to Live; Green-wire connects to Ground.)

### 6.2 Mounting Bracket Installation

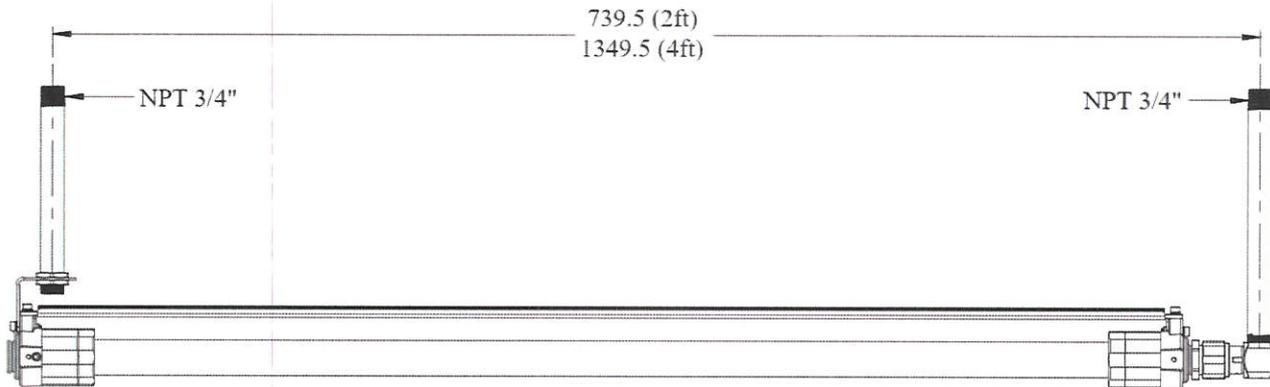
#### 6.2.1 Ceiling/Wall Mounting Bracket

- The mount bracket is for the use of both ceiling mount and wall mount.
- Position the bracket holders and fix it by means of the provided M6 screws, 24.5kgf-cm(M6).
- Secure the ceiling/wall mounting bracket to the structure by using four fasteners (not provided).



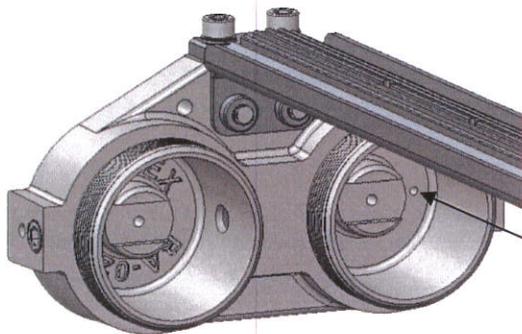
## 6.2.2 Straight Electrical Tube Mounting

- ☞ The mounting type is for the use of straight electrical tube mounting.
- ☞ Straight electrical tube mounting thread is NPT 3/4".
- ☞ Conduit is not provided. (provide in the field)



## 6.3 Earth ground

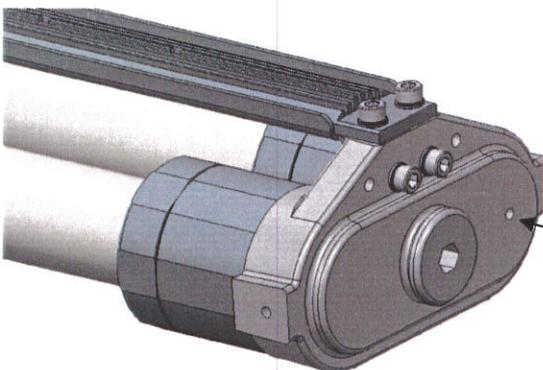
### Internal earth ground



Internal earth ground hole: M3

- ☞ Internal grounding has been factory installed

### External earth ground



External earth ground hole: M5

- ☞ The external ground screw is not provided
- ☞ Terminal type as show the right pictures.
- ☞ Ground wire cross-sectional area=4 mm<sup>2</sup> , max current=0.5A; @V=100Vac-10%.
- ☞ Both ground screw and washer material is stainless steel.
- ☞ Screw hole spec: M5.
- ☞ Torque requirement: 14.5 kgf-cm.
- ☞ Ensure wire is tied assured.

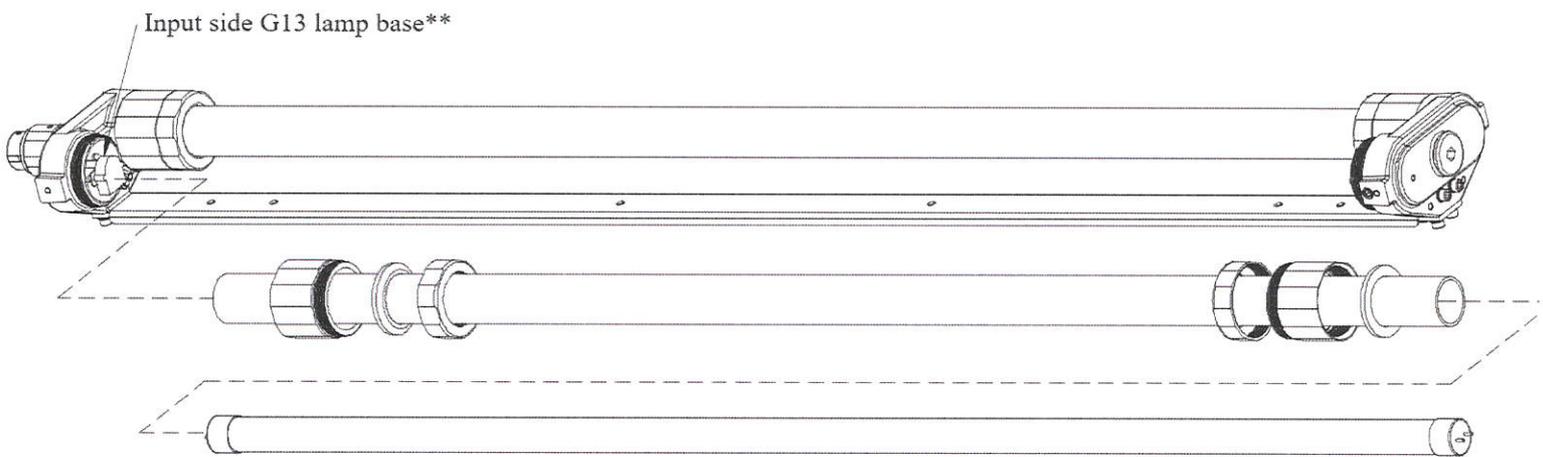
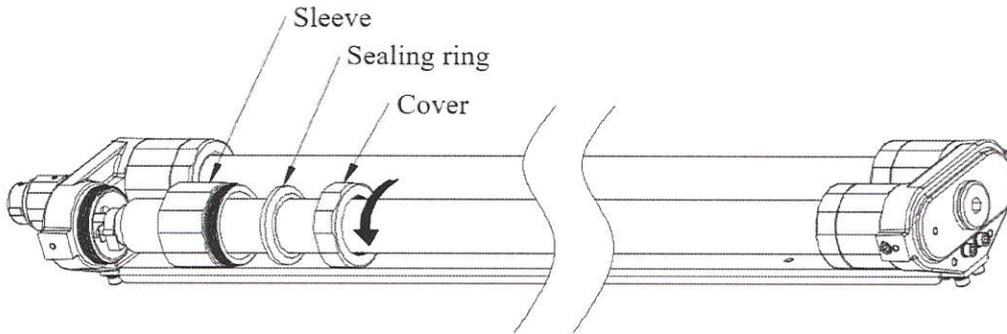


## 6.4 LED T8 tube replace

### Attention:

Be certain electrical power is OFF before during installation and maintenance.  
Use only original LED T8 tube and spare parts manufactured by THT-EX.

☞ Loosen the Cover and Sleeve.



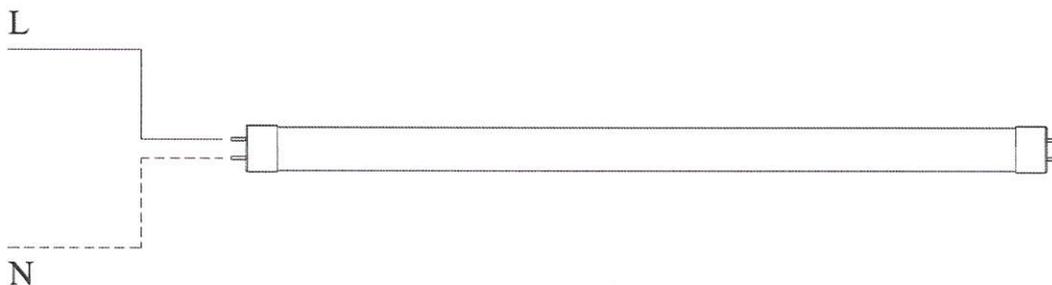
☞ Take out the LED tube and replace it.

### \*\* Factory configuration

Color of LED light	Wiring
Warm white / Natural white / Daylight / Cool white	Single-ended***
Yellow Tube	Double-ended****

\*\*\*A single-ended LED lamp is a lamp that has the live and neutral pins on the same side of the lamp. This end will be the "Input" end.

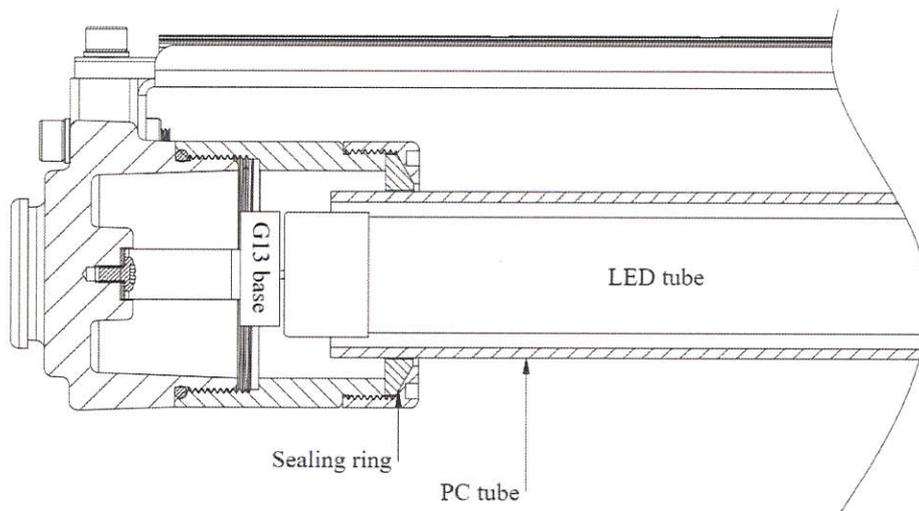
Input end and Cable Gland on the same side.



\*\*\*\*A Double-ended LED lamp is a lamp that has the live and neutral pins on the different side of the lamp.



- After replacing the LED tube, assemble the luminaire back in the order of Sleeve, Sealing ring & Cover.
- Torque value: Sleeve (80 Nm) / Cover (65 Nm)
- Please make sure the PC tube is sealed by the sealing ring.



## 6.5 Putting into Service

Before putting into operating, it's necessary to ensure that:

- the lighting is correctly installed.
- the connection has been correctly made.
- the cable has been inserted correctly.
- the voltage is correctly

## 7. Maintenance

### WARNING

- ▶ To avoid dangers due to energized parts, all connections and wiring must be disconnected from the power supply. Secure the connections against unauthorized activation.
- ▶ To avoid risk of burn to hands, let the luminaire cool down for approximate 30 minutes before touching them.
- ▶ Repairs are only to be carried out by the manufacturer. Unauthorized repair shall cause the manufacturer's liability and warranty expires.
- ▶ To avoid danger of potential electrostatic charging hazard, please wipe with a damp cloth when cleaning.

### Regular Maintenance

- Consult the relevant national regulations (e.g. IEC 60079-17) to determine the type and extent of inspections.
- Arrange the plan of regular inspection with the equipment, one time per 3-month at least, so that any defects in the equipment which may be anticipated are promptly detected.

To check as part of the maintenance schedule as following:

- Cracks or damages on the enclosure.
- Condition of the connecting cables.
- Screws of the mounting bracket are tightened.

## 8. Accessories and Spare Parts

### WARNING

Use only original THT-EX accessories and spare parts. For accessories and spare parts, see data sheet at [www.tht-ex.com](http://www.tht-ex.com).

## 9. Transport, Storage and Disposal

---

- ☞ Transport and storage are only allowed in the original packaging, on the way pointed out on the carton box.
- ☞ Transport – Shock-free in its original carton, do not drop, and handle carefully.
- ☞ Store – Store in a dry place in its original packaging.
- ☞ Disposal – Ensure environmentally friendly disposal of all components according to the legal regulations.

