

# Operating Instructions

## Emergency Flameproof LED Lighting

### Model L1320



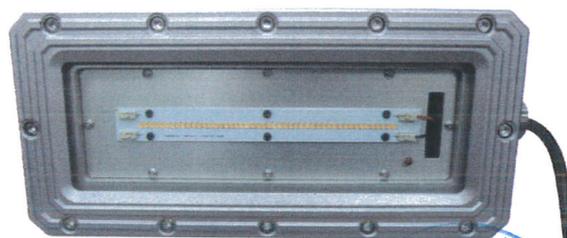
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Item No. : RD-TS-L1320-A



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## 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. The flameproof joints are not intended to be disassembled or repaired.

Customers should install and charge within one month after receiving the lighting fixtures.

**WARNING – The flameproof joints are not intended to be disassembled or repaired.**

**WARNING – The luminaire shall not be opened.**

### 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.

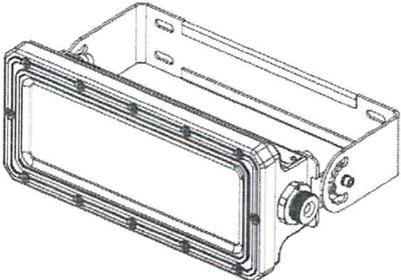
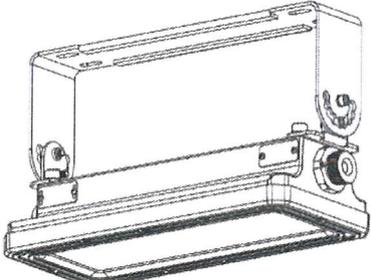
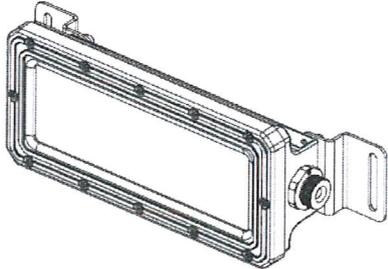
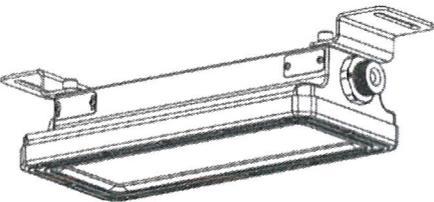
### 1.2 When operating the device:

- ☞ 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

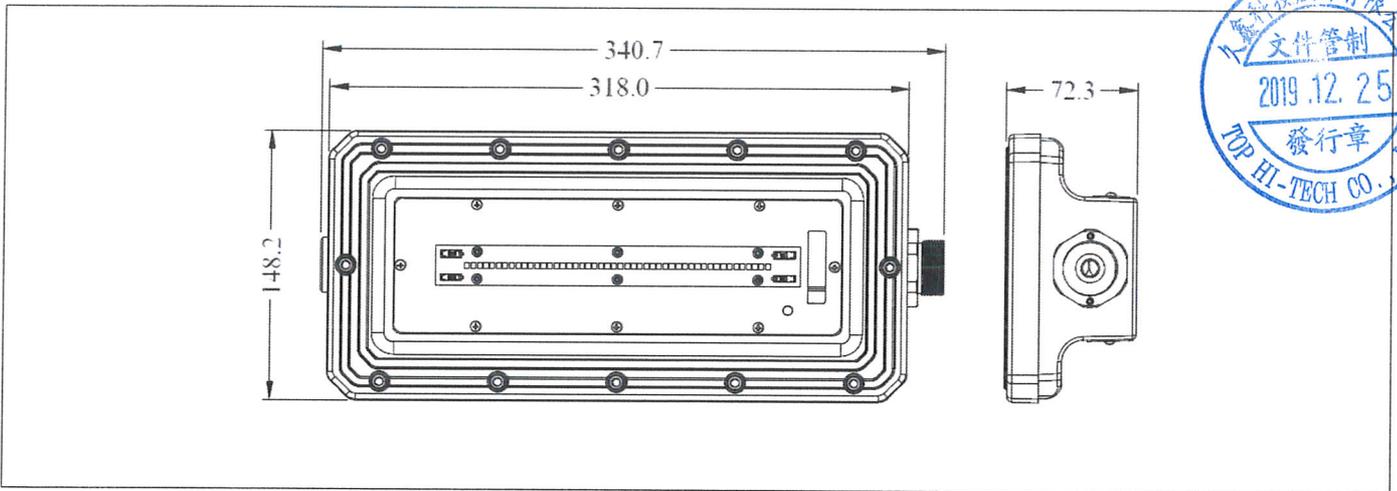
The emergency flameproof LED Lighting, Model L1320 is intended for using in gas explosive atmospheres (Zone 1 according to IEC 60079-10-1) and dust explosion hazards (Zone 21 according to IEC 60079-10-2). The use in other potentially explosive atmospheres does not correspond to the designated use and is therefore not allowed. The apparatus is designed for using in indoor and outdoor environments.

### 3. Technical Data

Item	Description	
Explosion Protection (CNS) Gas Explosion Protection Dust Explosion Protection	Ex d IIC T6 Gb Ex tb IIIC T85°C Db	
Rated Voltage/Frequency	100-277 Vac, 50/60 Hz	
Luminaire Wattage	20W ( in emergency mode)	
Battery Pack	Ni-MH Battery Pack	
Charging time	48 hr.	
Runtime of emergency mode	90 minute	
Color of LED light	3000K (Warm White) / 5000K (Cool White)	
CRI	> 80	
Ambient Temperature Range	-20°C ~ +40°C	
Degree of Protection	IP67	
Material Enclosure Glass	Aluminum alloy Tempered glass	
LED Service Life	60,000 hrs	
Mounting Type / Weight	Two position (wall/ceiling) adjustable trunnion, each position with two aiming angles	
		
	6.1 kg	6.1 kg
	Wall Mounting	Ceiling Mounting
		
	5.2 kg	5.2 kg



#### 4. Dimensions (All Dimensions in mm)



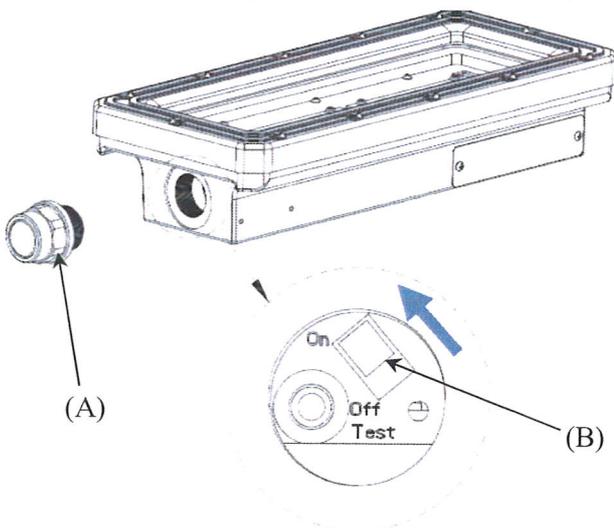
#### 5. Assembly and Installation (The flameproof joints are not intended to be disassembled or repaired)

Switch on the device by following steps before installation:

**⚠ WARNING**

To avoid dangers due to energized parts, the following procedure must be conducted in non-hazardous locations.

- Loosen the “Test Button” (A) of lighting by a suitable wrench.
- Switch the device to “on.” (B)
- Reattach and tighten the “Test Button” (A), 750.0 kgf-cm.



#### 5.1 Mounting Bracket Installation

##### 5.1.1 Two Position (Wall /Ceiling) Adjustable Trunnion Mounting Bracket

- The mount bracket is for the use of both ceiling mount (Figure 1) and wall mount (Figure 2).
- Position the bracket holders and fix it by means of the provided M8 screws, 61.0 kgf-cm.
- Secure the wall/ceiling mounting bracket to the structure by using four fasteners (not provided).
- The angle of lighting fixture can be adjusted.

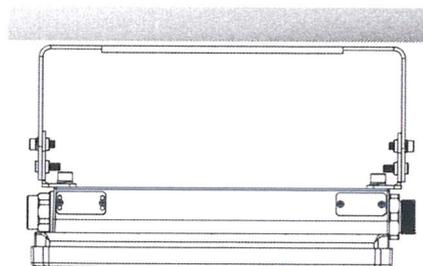


Figure 1

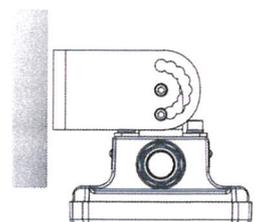


Figure 2  
RD-007-02 (A1)

### 5.1.2 Wall /Ceiling Mounting Bracket

- ☞ The mount bracket is for the use of both wall mount (Figure 3) and ceiling mount (Figure 4).
- ☞ Position the bracket holders and fix it by means of the provided M8 screws, 61.0 kgf-cm.
- ☞ Secure the wall/ceiling mounting bracket to the structure by using four fasteners (not provided).

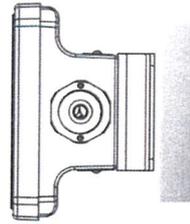
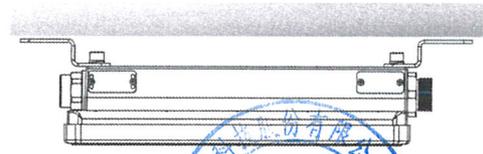
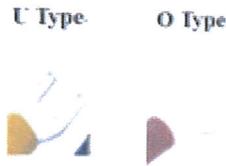


Figure 3



### 5.2 Ground wire

- ☞ The external earth ground wire installation and terminal type as show the right pictures.
- ☞ Ground wire cross-sectional area = 4 mm<sup>2</sup>, max LED current = 0.05 A; @V = 120 Vac-10%.
- ☞ Both ground screw and washer material is stainless steel.
- ☞ Screw hole spec: M4.
- ☞ Torque requirement: 7.0 kgf-cm.
- ☞ Ensure wire is tied assured.

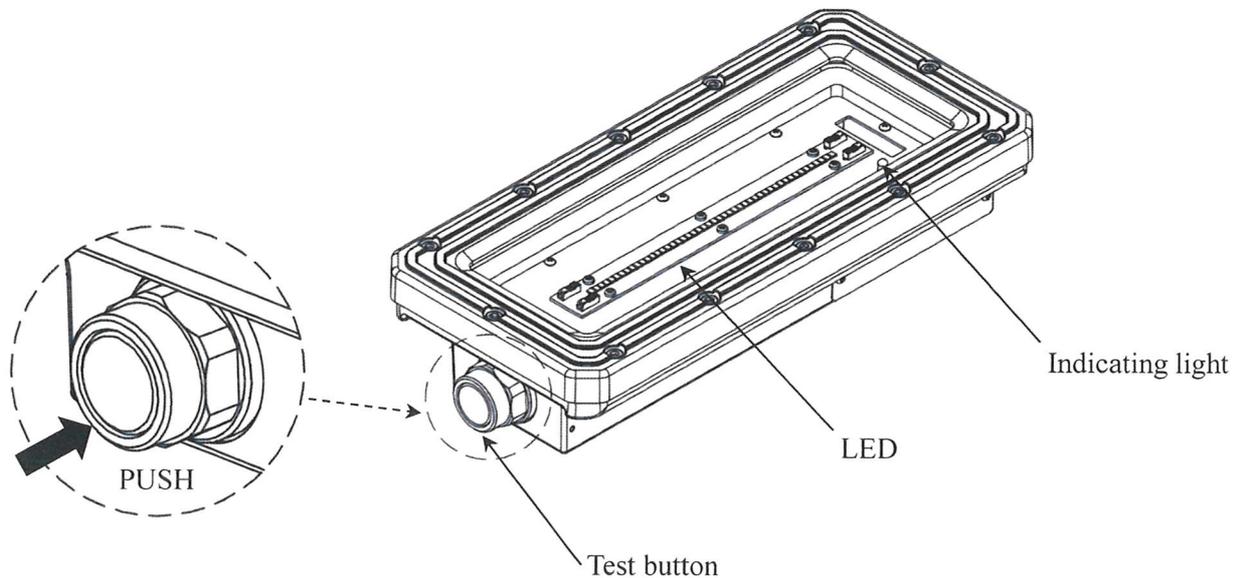


### 5.3 Putting into Service

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.
- ☞ the lighting fixture needs to be charged for 48 hours and it can provide 90 minutes illumination after fully charged.
- ☞ Continuously charge the Product for 48 hours before first time installation.
- ☞ It may result damage and/or inactive to the battery in case the Product continuously discharges over 30 days. Continuously charge the Product for 48 hours when the Product has continuously discharged for 30 days.

### 5.4 Test Emergency Lights





## Test emergency lighting system for proper operation

- ☞ Indicating light should be operating.
- ☞ Momentarily press the Test button and observe - emergency lights should be operating.
- ☞ If emergency lights do not operate initially, allow battery to charge for at least 3 hours or more, then repeat the test procedure.
- ☞ When press the push button, if the light source cannot be illuminated, please contact the factory to replace the LED or electronic component.

## 6. 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.
- ▶ Maintenance work is not permitted on flameproof enclosures. Repairs are only to be carried out by the manufacturer. Unauthorized repair shall cause the manufacturer's liability and warranty expires.
- ▶ Do not attempt to service the battery. The unit uses a sealed, Ni-MH battery which requires no maintenance. For replacement, contact the factory.

### 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 glass cover and/or on the enclosure.
- ☞ Condition of the connecting cables.
- ☞ Screws of the mounting bracket are tightened.

## 7. 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).

## 8. Transport, Storage and Disposal

- ☞ Transport and storage is 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.