

Operating Instructions

HazLoc LED Lighting

Model L1403L

THT-EX

Drawing No: Instruction_L1403L_IECEX

Revision Level: A0 Date: 2020-08-06

Pub.Code: RD-EX-L1403L-A

Subject to alterations

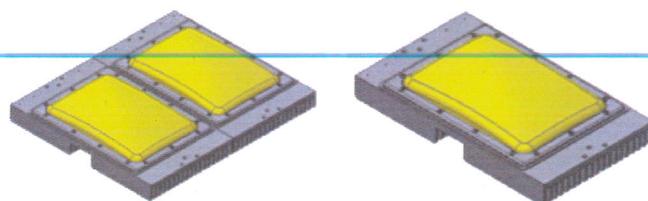
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1. General Safety Instructions

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.

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

WARNING - The luminaire shall not be opened.

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/EN 60079-14) apply.

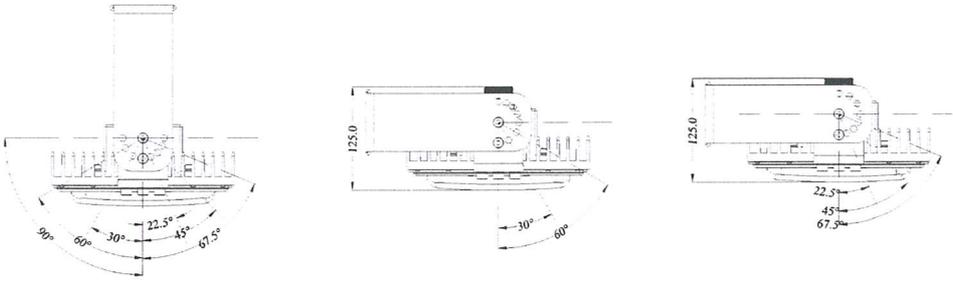
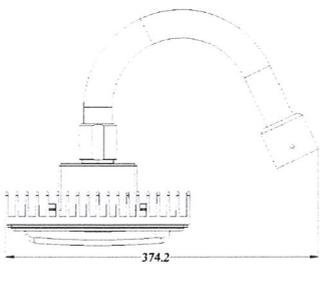
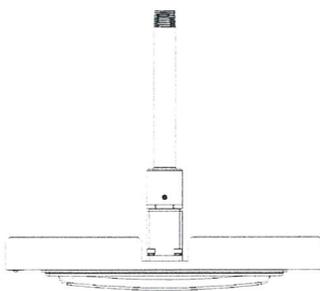
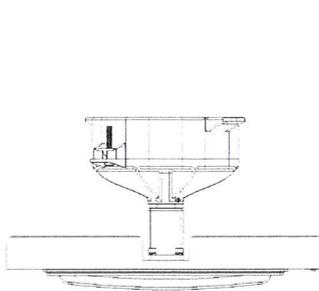
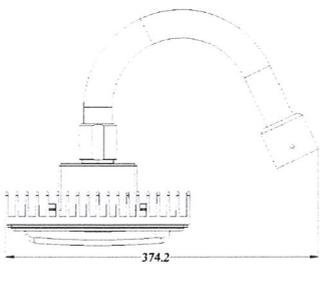
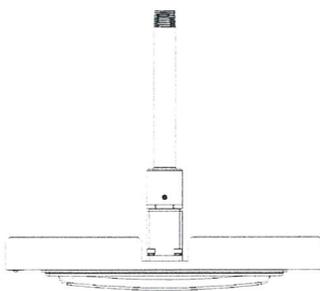
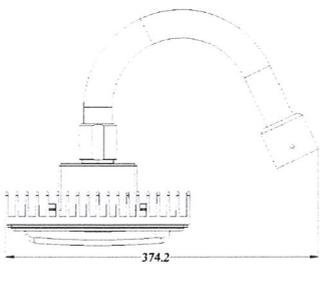
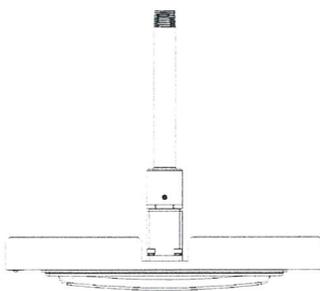
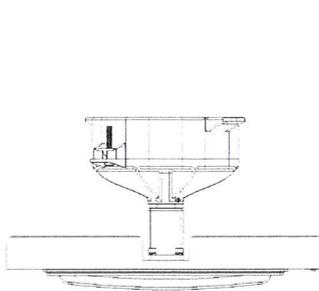
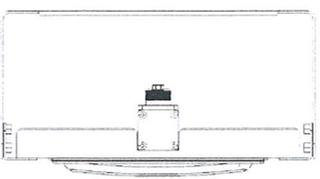
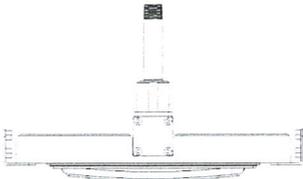
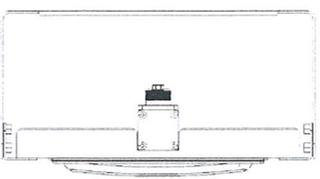
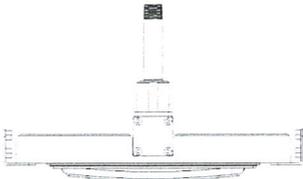
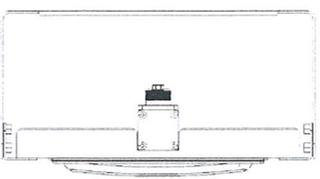
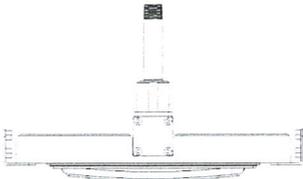
1.2 When operating the device:

-  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 L1403L is intended for using in gas explosive atmospheres (Zone 2 according to IEC60079-10-1) and dust explosion hazards (Zone 21 according to IEC60079-10-2). 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

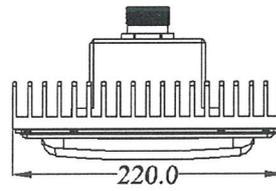
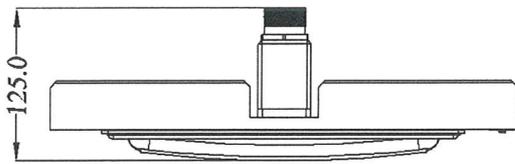
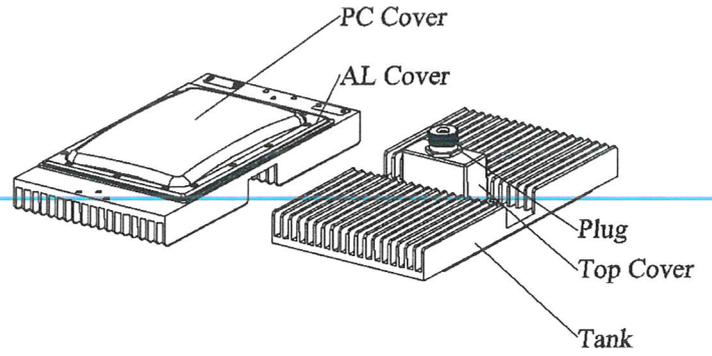
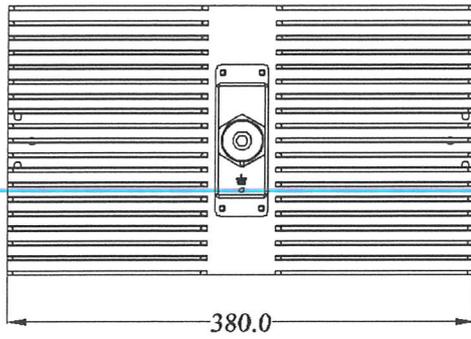
Item	Description					
Rated Voltage	110/220/230/277Vac, 50 & 60 Hz (Note information on type label)					
IECEX	IECEX UL 20.0005X Issue 0 Ex nR IIC T4...T6 Gc Ex tb IIIC T110°C...T85°C Db					
ATEX	UL 20 ATEX 2309X Rev. 0 (Type Exam) UL 20 ATEX 2337X Rev. 0 (EU Type) CE II 3 G Ex nR IIC T4...T6 Gc CE0035 II 2 D Ex tb IIIC T110°C ...T85°C Db					
Power Factor	$\cos \phi \geq 0.9$					
Ambient Temperate Range	-20°C ≤ Ta ≤ +40°C / -20°C ≤ Ta ≤ +55°C					
Material	Enclosure: Aluminum alloy; Cover: PC					
LED Service Life	60,000 hrs					
Entrance Hole	M22 threaded hole incorporate with Cable Gland					
<p>Luminaire provide with cable gland and cable which assembled at the factory. A torque with 510 kgf-cm (For Single Tank) / 50 N-m (For Dual Tanks) shall apply to the Plug to compress the Tube at the factory. Cable gland is for circular (round), non-metal sheathed cables. The cable type is: SOOW, 18/3C AWG, 105°C, 1-3 m length. Size of Tube: ID Ø9.0 (Fitting Cable: OD Ø9), L=15 mm</p>						
Mounting Type (Single Tank)	Adjustable Trunnion Mounting Bracket					
						
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center;">Bending Electrical Tube Mounting 25°</td> <td style="width: 33%; text-align: center;">Pendant Mounting Bracket</td> <td style="width: 33%; text-align: center;">Ceiling Bracket Mounting</td> </tr> <tr> <td style="text-align: center;">  </td> <td style="text-align: center;">  </td> <td style="text-align: center;">  </td> </tr> </table>	Bending Electrical Tube Mounting 25°	Pendant Mounting Bracket	Ceiling Bracket Mounting		
Bending Electrical Tube Mounting 25°	Pendant Mounting Bracket	Ceiling Bracket Mounting				
						
Mounting Type (Dual Tanks)	Hanging Mounting					
	Pendant Mounting Bracket					
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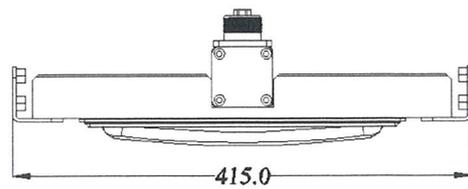
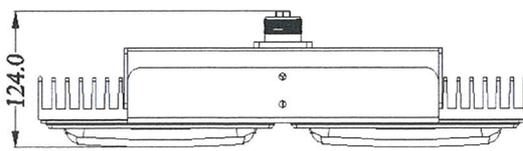
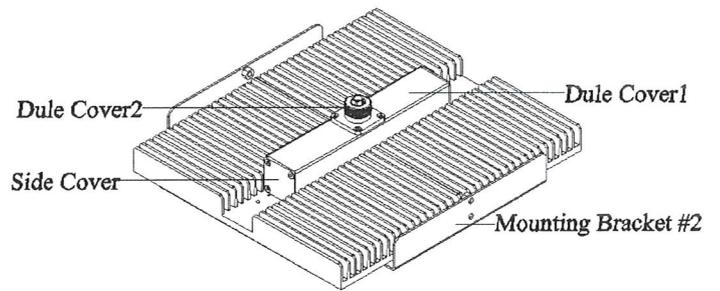
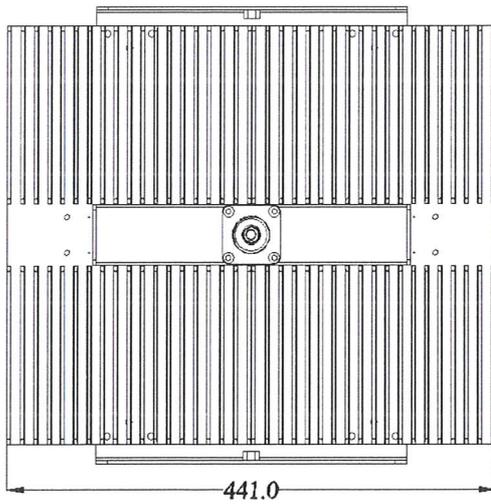
4. Dimensions (All Dimensions in mm)



Single Tank



Dual Tanks



5. Assembly and Installation (The luminaire shall not be opened during installation)

5.1 Electrical Connection

Overview of Electrical Connection

Fix and Introduce the wires of luminary with the terminal post of Junction Box (White-wire connects to Neutral; Red-wire connects to Live; Green-wire connects to Ground.)

5.2 Single Tank Mounting Bracket Installation

5.2.1 Adjustable Trunnion Mounting Bracket –

- ☞ The mount bracket is for surface mounting to wall (Figure 1) and ceiling (Figure 2).
- ☞ Position the bracket holders and secured by means of the provided M8 screws with 61 kgf-cm.
- ☞ Secure the wall/ceiling mounting bracket to the mounting surface by using four fasteners (not provided).
- ☞ The luminaire can be adjusted.

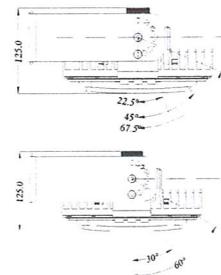


Figure 1

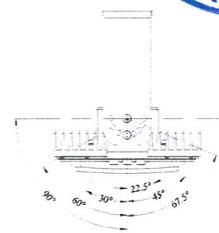


Figure 2



5.2.2 Bending Electrical Tube Mounting

- ☞ Supplement for the Item 5.1 – Electrical Connection. The thread of entry hole of Connection Base is M35.
- ☞ Introduce the wires of the cord by attached closed-end-terminals as indicated in Item 5.1 – Electrical Connection.
- ☞ The bending electrical tube mounting bracket, one end secured to Plug by integral M35 female threads and with a setscrew; the other end provided with 1-1/2” NPT female threads for connecting with conduit by AHJ.
- ☞ Thread the tube mounting on conduit and torque until wrench-tight with 6600 kgf-cm.

- ☞ Tighten tube locking setscrew to conduit, 1.0 N-m. (Figure 3)

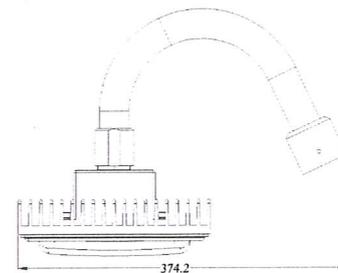


Figure 3

5.2.3 Pendant Mounting Bracket

- ☞ Supplement for the Item 5.1 – Electrical Connection. The thread of entry hole of Connection Base is M35.
- ☞ Introduce the wires of the cord by attached closed-end-terminals as indicated in Item 5.1 – Electrical Connection.
- ☞ The pendant mounting bracket, one end secured to Plug by integral M35 male threads and with a setscrew; the other end provided with 3/4” NPT male threads for connecting with conduit by AHJ.
- ☞ Thread the tube mounting on conduit and torque until wrench-tight with 1500 kgf-cm.

- ☞ Tighten tube locking setscrew to conduit, 1.0 N-m. (Figure 4)

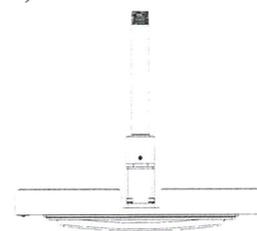


Figure 4

5.2.4 Ceiling Mounting Bracket

- ☞ The ceiling mounting bracket is for the use of ceiling mounting type. (Figure 5)
- ☞ Position the bracket holders and fix it by means of the provided M8 screws, 61.0 kgf-cm.
- ☞ Capturing the luminaires hinge pin inside the ceiling bracket base hinge hook, clamp the ceiling bracket base down, Thread the captive closing screw into the ceiling bracket base, and tighten it to 30 in.-lbs (3.4 N-m).

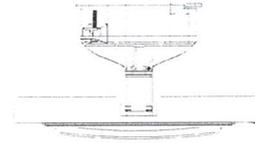


Figure 5

5.3 Dual Tank Mounting Bracket Installation

5.3.1 Hanging Mounting Bracket

- ☞ The mount bracket is for surface mounting to ceiling (Figure 6).
- ☞ Position the bracket holders and secured by means of the provided M8 screws with 61 kgf-cm.
- ☞ Secure the hanging mounting bracket to the mounting surface by using four fasteners (not provided).

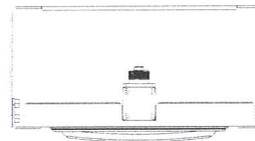


Figure 6

5.3.2 Pendant Mounting Bracket

- ☞ Supplement for the Item 5.1 – Electrical Connection. The thread of entry hole of Connection Base is M35.
- ☞ Introduce the wires of the cord by attached closed-end-terminals as indicated in Item 5.1 – Electrical Connection.
- ☞ The pendant mounting bracket, one end secured to Plug by integral M35 male threads and with a setscrew; the other end provided with 3/4" NPT male threads for connecting with conduit by AHJ.
- ☞ Thread the tube mounting on conduit and torque until wrench-tight with 1500 kgf-cm.

- ☞ Tighten tube locking setscrew to conduit, 1.0 N-m. (Figure 7)

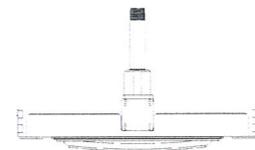


Figure 7

5.4 Ground Wire

- ☞ The external earth ground wire installation and terminal type as show the right pictures.
- ☞ Ground wire cross-sectional area=4.0 mm² , max LED current=1.0A; @V=110Vac-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.

U Type O Type



5.5 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



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.
- ▶ 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/EN 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 PC 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.

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.