

Operating Instructions

Flameproof LED Lighting

Model L1815C

THT-EX

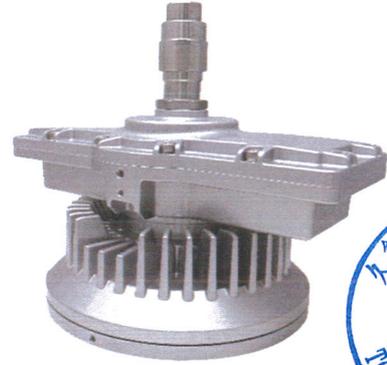
Drawing No: RD-EX-L1815C-A

Revision Level: A0

Date: 2020-06-04

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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 – The luminaire shall not be opened.

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

WARNING – Potential Electrostatic Charging Hazard.

WARNING – Do not clean or rub when an explosive atmosphere may be present.

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.

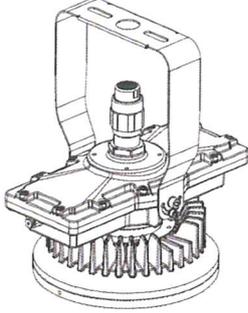
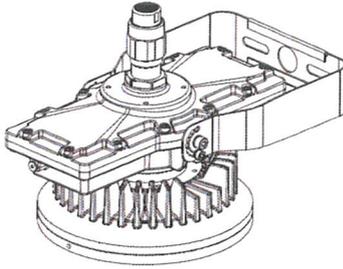
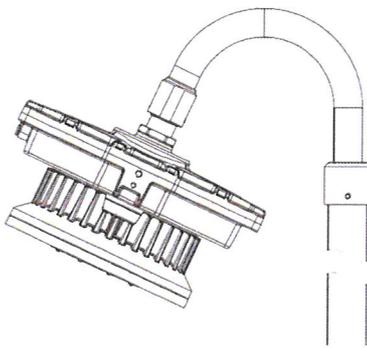
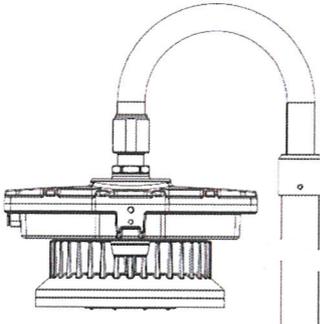
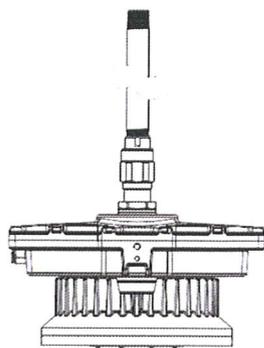
1.2 When operating the device:

- ☞ 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 flameproof LED Lighting, Model L1815C is intended for using in gas explosive atmospheres (Zone 1 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		
Explosion Protection IECEX Gas Explosion Protection Dust Explosion Protection ATEX Gas Explosion Protection Dust Explosion Protection	IECEX TUR 20.0023X Issue 0 Ex db IIC T5 Gb Ex tb IIIC T100°C Db TÜV 20 ATEX 8533 X Rev. 0 CE0035 II 2 G Ex db IIC T5 Gb CE0035 II 2 D Ex tb IIIC T100°C Db		
Rated Voltage/Wattage	THTE1815CCK*HP0 – 100-277 Vac, 50/60 Hz, 150 W THTE1815CCK*HL0 – 100-277 Vac, 50/60 Hz, 120 W THTE1815CCK*JP0 – 200-480 Vac, 50/60 Hz, 150 W THTE1815CCK*JL0 – 200-480 Vac, 50/60 Hz, 120 W		
Power Factor	$\cos \phi \geq 0.9$		
Ambient Temperature Range	$-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$		
Degree of Protection	IP67		
LED Service Life	60,000 hrs		
<p>Luminaire provide with cable gland and cable which assembled at the factory. A torque with 65 N-m shall apply to the Pressure Nut 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, 1-3 m length. Size of Tube: ID Ø8.5 (Fitting Cable: OD Ø7.5 & Ø8.5) or ID Ø9.0 (Fitting Cable: OD Ø8 & Ø9), L=25.6 mm</p>			
Mounting Type / Weight	WHT = Two positions (wall/ceiling) adjustable trunnion, each position with two aiming angles		
			
	10.2 kg	10.2 kg	
	Bending electrical tube 25°	Bending electrical tube 90°	Straight electrical tube
			
	10.5 kg	10.6 kg	9.7 kg



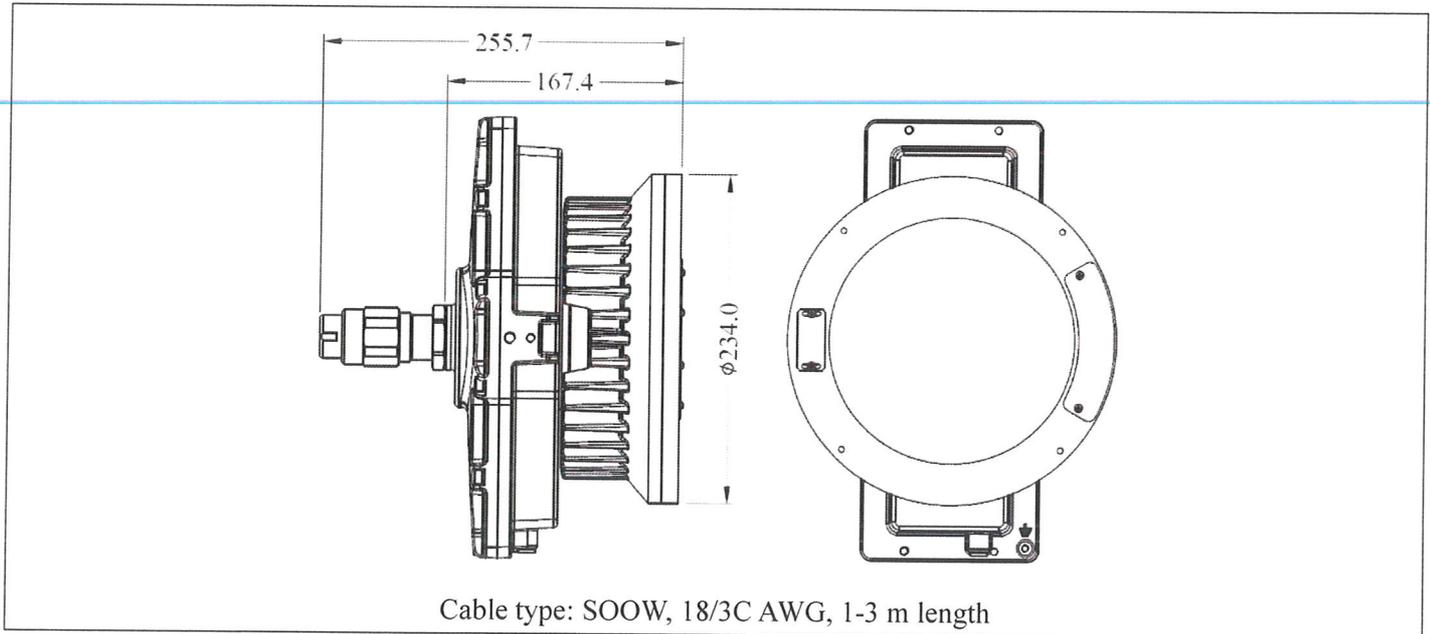
4. Model Code

THTE1815CCK①②③

- ① : C= Cool white / W= Warm white
- ② : H= input 100-277 Vac / J= input 200-480 Vac
- ③ : P0= 150W / P0= 120W



5. Dimensions (All Dimensions in mm)



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

6.1 Mounting Bracket Installation

6.1.1 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 and M6 screws ,61.0 kgf-cm(M8), 24.5kgf-cm(M6).
- ☞ Secure the wall/ceiling mounting bracket to the structure by using two fasteners (not provided).
- ☞ The angle of lighting fixture can be adjusted.

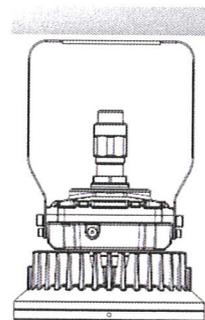


Figure 1

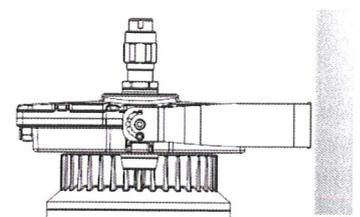


Figure 2

6.1.2 Straight electrical tube mounting

- ☞ The mounting type is for the use of straight electrical tube mounting (Figure 3).
- ☞ Straight electrical tube mounting thread is NPT 3/4".
- ☞ Thread the tube mounting on conduit and torque until wrench-tight as requirement,1500 kgf-cm.

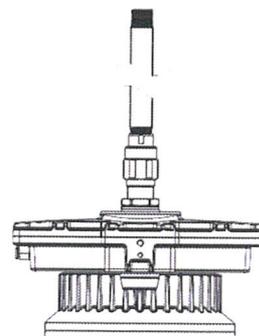


Figure 3

6.1.3 Bending electrical tube mounting

- ☞ The bending electrical tube, one end secured to Cable Gland by integral M35 female threads and with a setscrew; the other end provided with 1-1/2" NPT female threads for connecting with conduit.
- ☞ 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. (Figures 4 and 5)

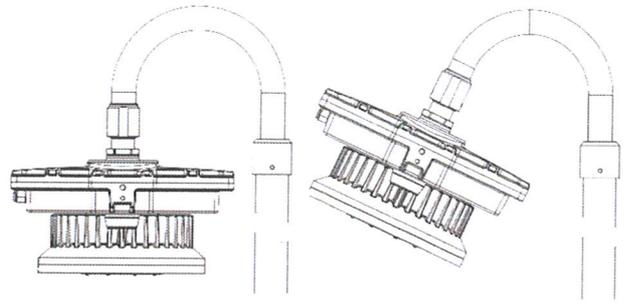


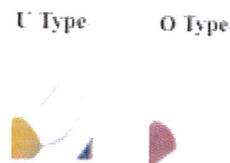
Figure 4

Figure 5

6.2 Ground wire

- ☞ The external earth ground wire installation and terminal type as show the right pictures.
- ☞ Ground wire cross-sectional area=4 mm² , max LED current=1.7A; @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.



6.3 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.



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.
- ▶ 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.

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.

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.

9. 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.

