

Operating Instructions

Flameproof LED Lighting

Model L2101

THT-EX

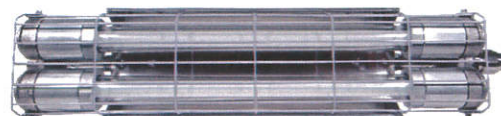
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1. General Safety Instructions

⚠ 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.

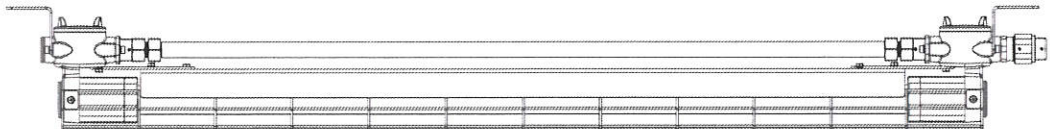
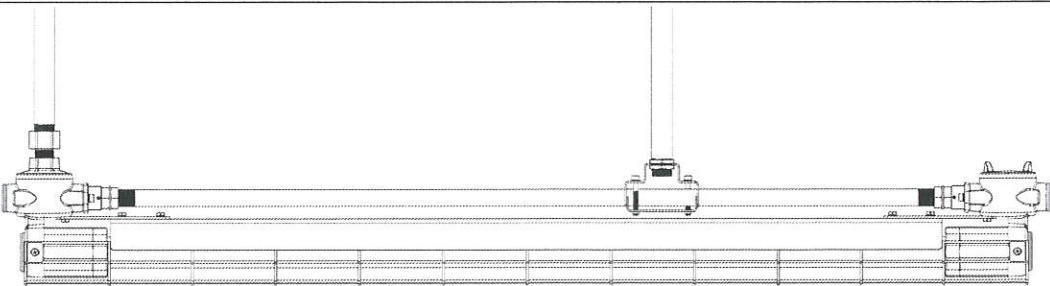
1.2 When operating the device:

- ☞ 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 L2101 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	IECEX UL 22.0010X			
Gas Explosion Protection	Ex db IIB+H2 T6 Gb			
Dust Explosion Protection	Ex tb IIIC T80°C Db			
ATEX	UL 22 ATEX 2698X			
Gas Explosion Protection	CE0035 II 2 G Ex db IIB+H2 T6 Gb			
Dust Explosion Protection	CE0035 II 2 D Ex tb IIIC T80°C Db			
Electrical Rating	Color of LED light: Warm white / Natural white / Daylight / Cool white			
	Models	Voltage (Vac)	Frequency (Hz)	Wattage (W)
4ft Double tube	THTE2101DxxHC6	100~277	50/60	36
4ft Single tube	THTE2101BxxHA8	100~277	50/60	18
2ft Double tube	THTE2101CxxHA8	100~277	50/60	18
2ft Single tube	THTE2101AxxHZ9	100~277	50/60	9
Electrical Rating	Color of LED light: Yellow Tube			
	Models	Voltage (Vac)	Frequency (Hz)	Wattage (W)
4ft Double tube	THTE2101DxYHD0	100~277	50/60	40
4ft Single tube	THTE2101BxYHB0	100~277	50/60	20
2ft Double tube	THTE2101CxYHB0	100~277	50/60	20
2ft Single tube	THTE2101AxYHA0	100~277	50/60	10
Power Factor	cos φ ≥ 0.9			
Ambient Temperate Range	-20°C≤Ta ≤+40°C			
Degree of Protection	IP67			
Luminaires provide with cable gland and cable which assembled at the factory. A torque with 55 N-m shall apply to the Gland Pressure Nut to compress the Gland 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 Gland Tube: ID Ø9.0 (Fitting Cable: OD Ø9), L=15 mm				
Mounting Type / Weight	Ceiling /Wall Mounting Bracket (C90/W90)			
				
	10.8 (4ft Double tube) / 7.7 (2ft Double tube) kg 8.1 (4ft Single tube) / 5.4 (2ft Single tube) kg			
	Straight Electrical Tube (P90) Conduit is not provided Straight Electrical Tube mount only for Top cover with opening type			
				
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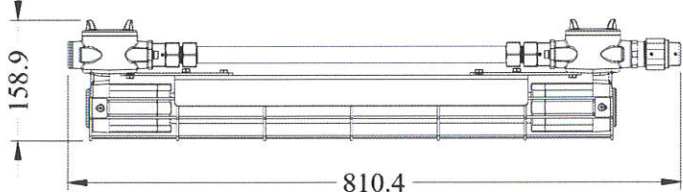
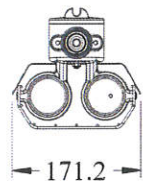
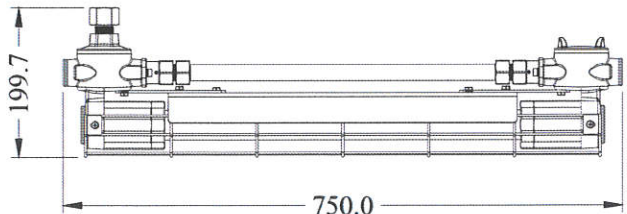
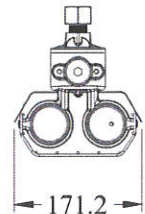
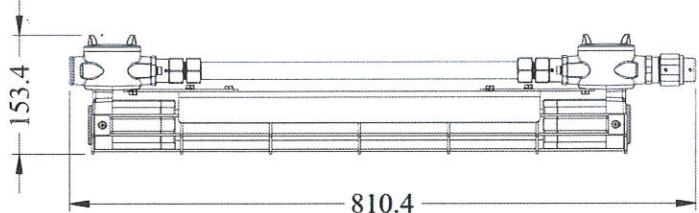
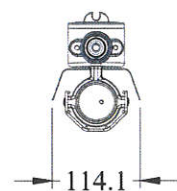
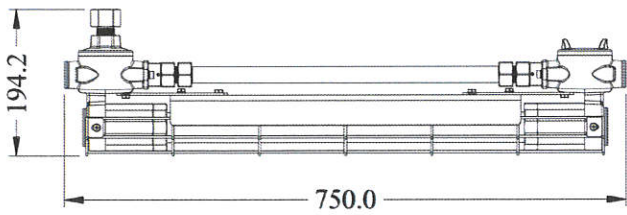
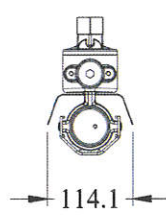
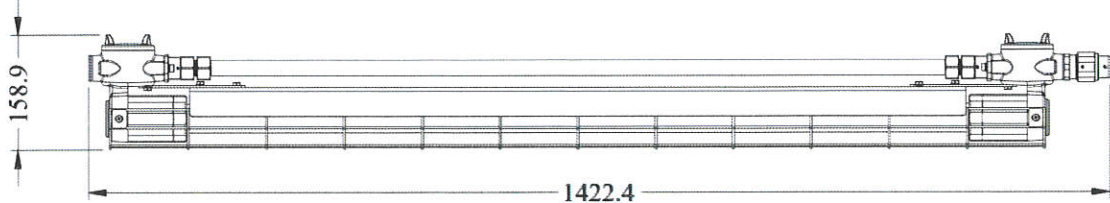
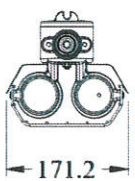


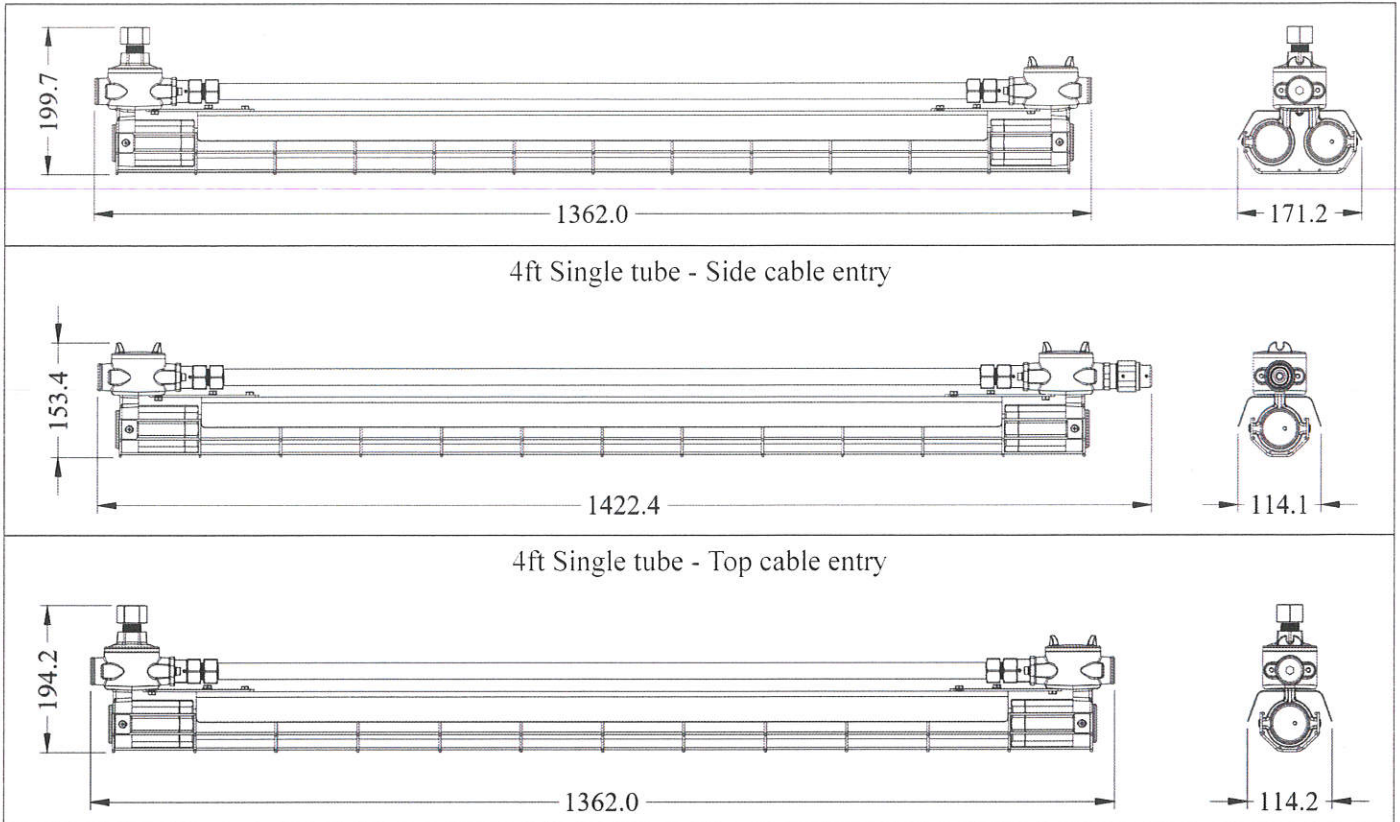
4. Model Code

THTE2101①②③H④

- ① : A= 2ft Single tube /B= 4ft Single tube /C= 2ft Double tube /D= 4ft Double tube
 ② : C= Top cover with opening /D= Top cover without opening
 ③ : W= Warm white /N= Natural white /D= Daylight /C= Cool white /Y= Yellow
 ④ : Z9= 9W /A8= 18W /C6= 36W /A0=10W /B0= 20W /D0= 40W

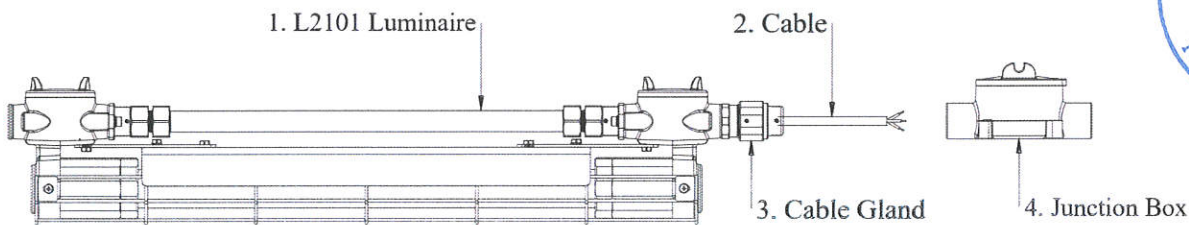
5. Dimensions (All Dimensions in mm)

2ft Double tube - Side cable entry		<div>文件管制 2022.12.27 發行章 TOP HI-TECH CO., LTD.</div>
		
2ft Double tube – Top cable entry		
		
2ft Single tube - Side cable entry		
		
2ft Single tube - Top cable entry		
		
4ft Double tube - Side cable entry		
		
4ft Double tube – Top cable entry		



6. Assembly and Installation

6.1 Electrical Connection



Overview of Electrical Connection

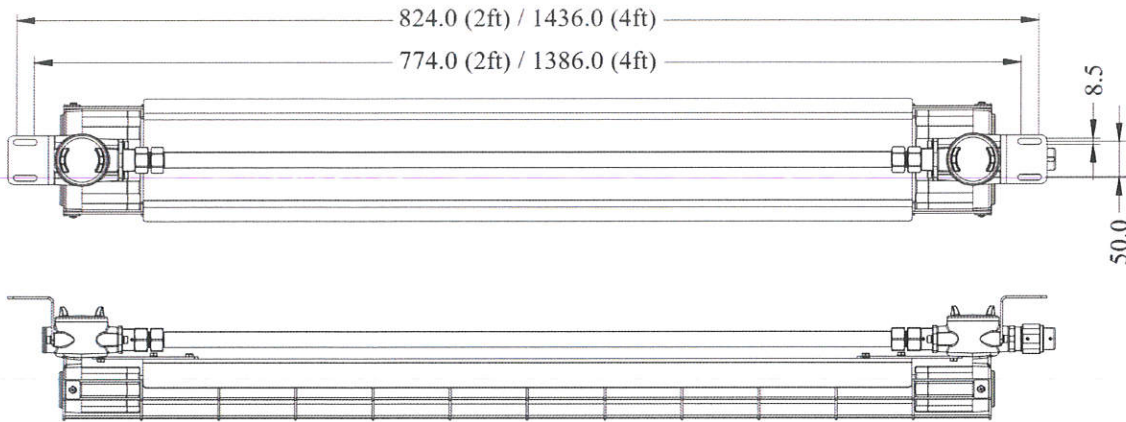
1: L2101 Luminaire	2: Cable	3: Cable Gland	4: Junction Box (Provide by customer)
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- For luminaire with Ceiling/Wall Mounting Bracket: Insert the Cable (2) into the Junction Box (4) (provide in the field).
- For luminaire with Straight Electrical Tube 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

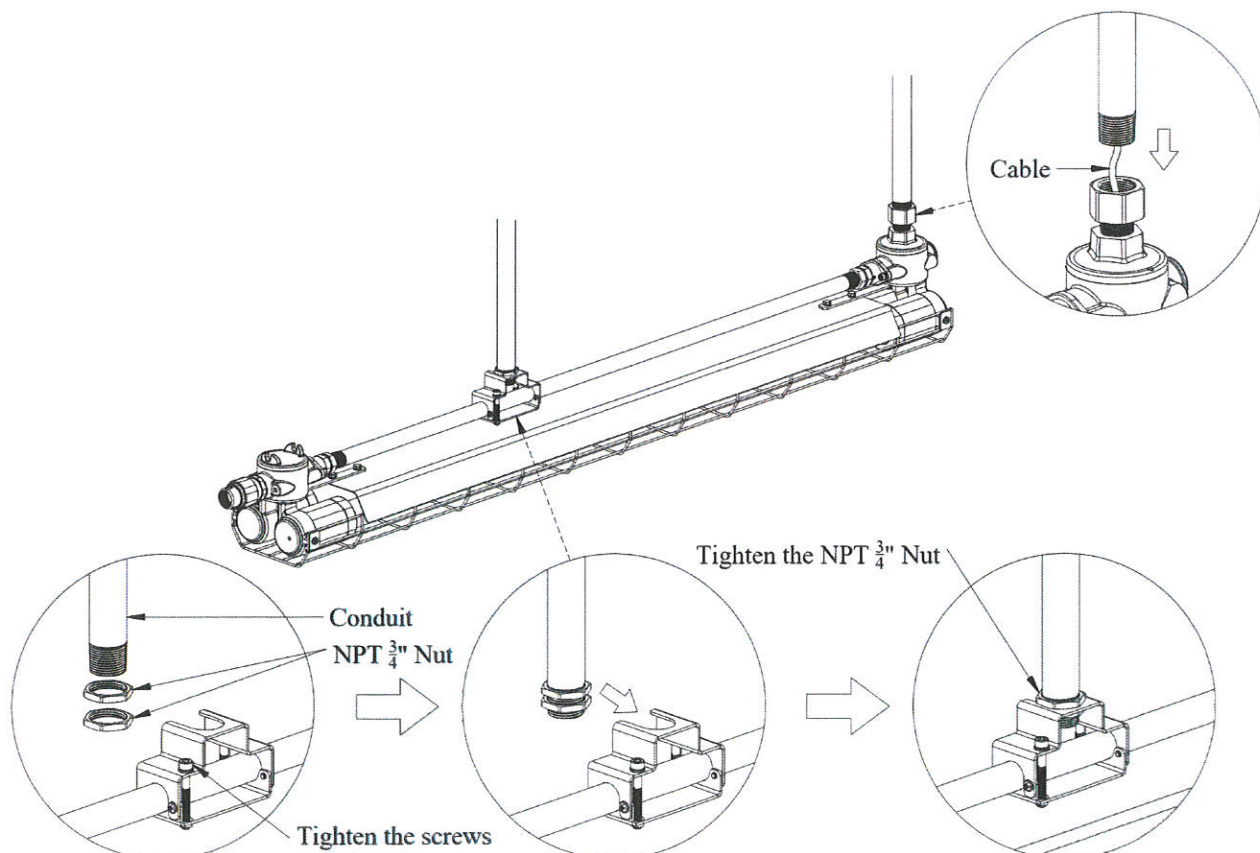
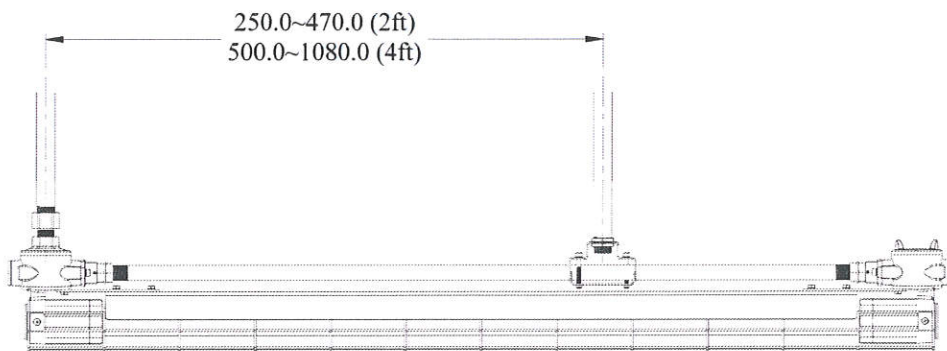
6.2.1 Ceiling/Wall Mounting Bracket (C90/W90)

- 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 (P90)

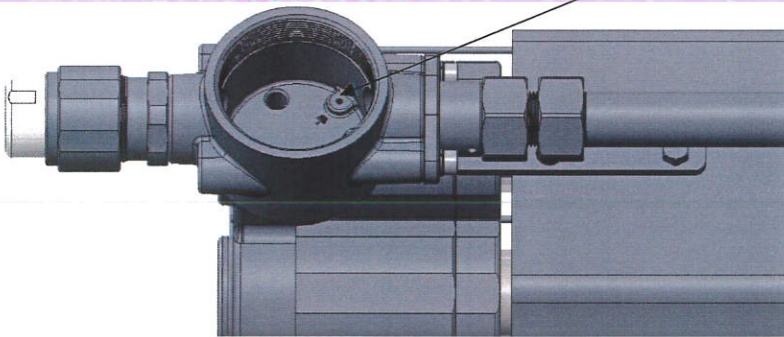
- ✦ The mounting type is for the use of straight electrical tube mounting.
- ✦ Straight electrical tube mounting thread is NPT 3/4".
- ✦ Conduit is not provided. (provide in the field)
- ✦ Conduit tightening torque value: 1500 kgf-cm.



6.3 Earth ground

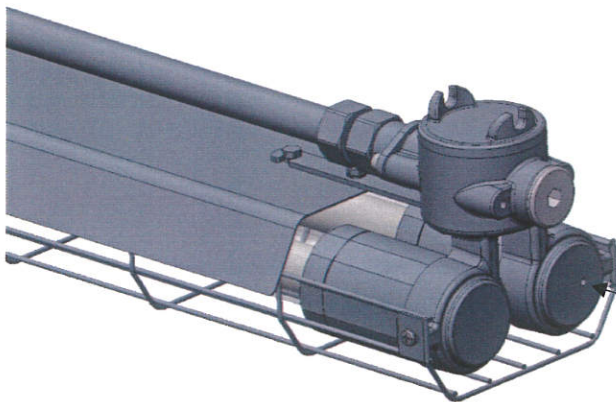
Internal earth ground

- ☞ Internal grounding has been factory installed
- ☞ Internal earth ground hole: M3



External earth ground

- ☞ The external ground screw is not provided
- ☞ Terminal type as show the right pictures.



External earth ground hole: M5

- ☞ Ground wire cross-sectional area=4 mm² , 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 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 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 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.