

Luminaire For Hazardous Locations

Installation and Maintenance Manual

HazLoc L1203



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1. General Information

HazLoc L1203 LED Luminaires are suitable for use in the following hazardous (classified) areas as defined by the National Electrical Code (NEC) and Canadian Electrical Code (CEC):

- Class I, Division 2, Groups A, B, C, D
- Class II, Division 2, Groups F, G
- Wet Locations (UL 1598)

Refer to the luminaire nameplate for specific classification information, maximum ambient temperature suitability and corresponding operating temperature (T-Code).

HazLoc L1203 LED Luminaire is designed for using in indoors and outdoors environment.

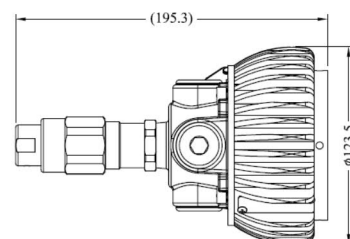
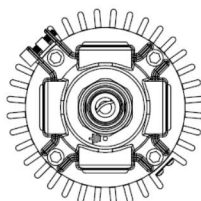
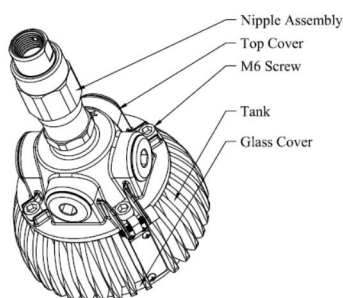


Rated Voltage: 24/120/277/480 Vac, 50 & 60 Hz
Ambient Temperature Range: -40°C ~ +40°C

WARNING

- ▶ To avoid the risk of fire, explosion or electric shock, this product should be installed, inspected and maintained by a qualified electrician only, in accordance with all applicable codes and regulations.
- ▶ To avoid electric shock:
 - ✓ Be certain electrical power is OFF before and during installation and maintenance.
 - ✓ Luminaire must be supplied by a wiring system with an equipment grounding conductor.
- ▶ To avoid explosion:
 - ✓ Make sure that the supply voltage is the same as the luminaire voltage.
 - ✓ Do not install where the marked operating temperatures exceed the ignition temperature of the hazardous atmosphere.
 - ✓ Do not operate in ambient temperatures above those indicated on the luminaire nameplate.
 - ✓ All gasket seals must be clean and undamaged.
 - ✓ Before dismounting, electrical power to the luminaire must be turned off. Keep tightly closed when in operation.
- ▶ To avoid burning hands, ensure the luminaire is cool when performing maintenance.

2. Dimensions (All Dimensions in mm) –

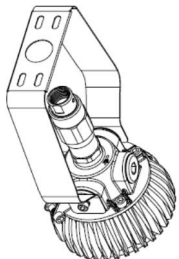
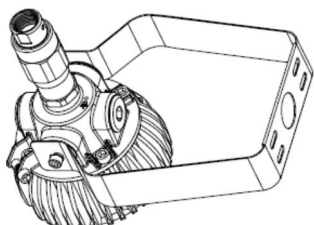
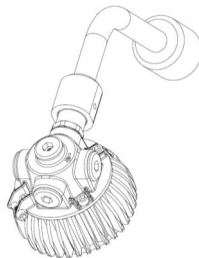

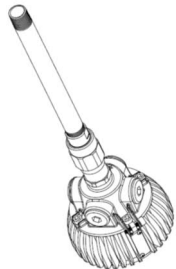


3. Model Code

THT	H	1203	Z	B	B	C	9	B0	-C90
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

- (1) Brand name, THT = Top Hi-Tech Co., Ltd
- (2) Protection type of luminaire, H = Hazardous Locations luminaire
- (3) Model name, 1203 = Model L1203
- (4) Suffix for manufacturer internal use only, Z = No sub-series under this model
- (5) Designates type of Top Cover, B = Short Top Cover
- (6) Designates type of LED module, B = DCOB LED protector
- (7) Designates CCT of LED, C = Cool white, W = Warm white
- (8) Designates voltage of LED module, 3 = 24 Vac, 6 = 120 Vac, 9 = 277 Vac, C = 480 Vac
- (9) Designates wattage rating of the luminaire, B0 = 20 W
- (10) Mounting means, P90 = Straight Electrical Tube Mounting 90°; W90 = Trunnion Pendant Bracket (wall/ceiling); S25 = Bending Electrical Tube Mounting 25° ;S90 = Bending Electrical Tube Mounting 90°

4. Technical Data

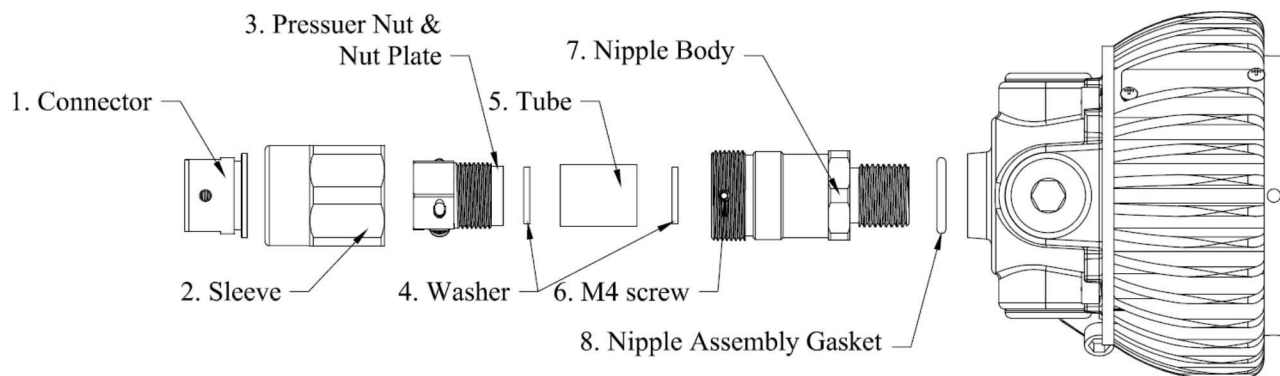
Item	Description		
Rated Voltage	24 / 120 / 277 / 480 Vac, 50 & 60 Hz		
Ambient Temperature Range	-40°C ~ +40°C		
Material Enclosure Glass	Aluminum alloy Heat and impact resistant tempered glass		
LED Service Life	60,000 hrs		
Entrance Hole	4*NPT 1/2" threaded holes or 1*NPT 1/2" threaded holes		
Mounting Type / Weight	Two-position (wall/ceiling) adjustable trunnion, each position with two aiming angles (0° and 90° adjustable)		
			
	2.4 kg	2.4 kg	
	Bending Electrical Tube Mounting 25°	Bending Electrical Tube Mounting 90°	Straight Electrical Tube Mounting 90°
			
	2.8 kg	3.0 kg	2.2 kg

5. Assembly and Installation

5.1 Electrical Connection

Overview of Connection Base

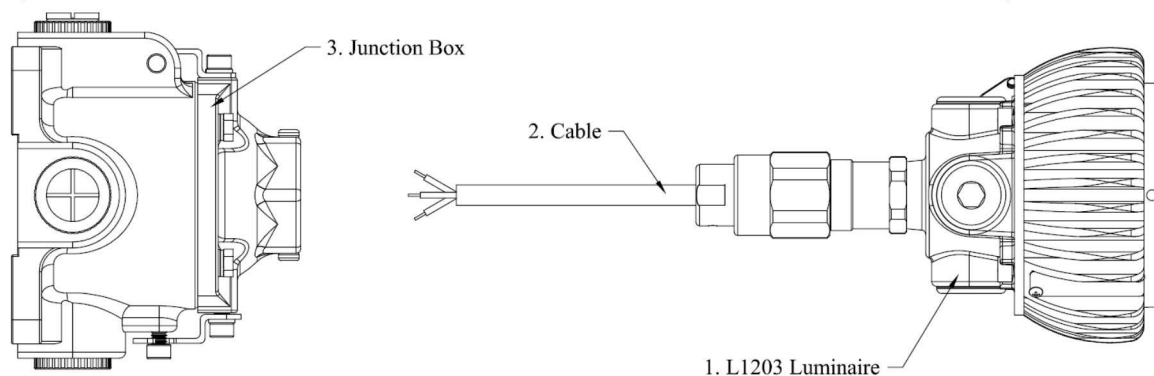
1: Connector	2: Sleeve	3: Pressure Nut & Nut Plate	4: Washer
5: Tube	6: M4 Screw	7: Nipple Body	8: Nipple Body Gasket



The Top Cover is equipped with the entry hole by mounting the Connection Base.

Overview of Electrical Connection

1: L1203 Luminaire	2: Cable (Length: min, 24 inches)	3: Junction Box (Provide by customer)
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1. For mounting means - “W90” : Insert the cable (2) through the conduit (not shown, provide in the field) into the Junction Box (3) (provide in the field).
2. For mounting means - “S25” and “S90” and “P90”: Insert the cable (2) through the integral mounting bracket and then through the conduit (not shown, provide in the field) into the Junction Box (3) (provide in the field).
3. Fix and Introduce the wires of luminaire with the terminal post of Junction Box (White-wire connects to Neutral; Red-wire connects to Live; Green-wire connects to Ground.)

5.2 Mounting Bracket Installation

5.2.1 Two-position (wall/ceiling) adjustable trunion, each position with two aiming angles (0° and 90° adjustable)

- ☞ 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 M6 screws with 24.5 kgf-cm.
- ☞ Secure the wall/ceiling mounting bracket to the mounting surface by using four fasteners (not provided).
- ☞ The luminaire can be adjusted in one position as shown in Figures 1 and 2.

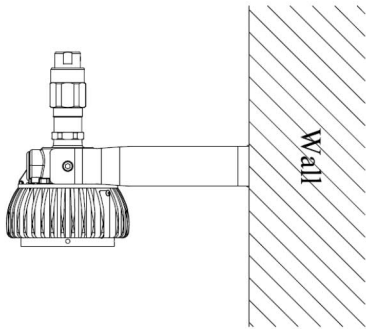


Figure 1

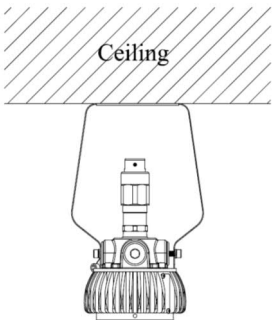


Figure 2

5.2.2 Straight Electrical Tube Mounting 90°

- ☞ The mounting type is for the use of straight pendant electrical tube mounting (Figure 3).
- ☞ Tube mounting thread is 1/2” NPT for connecting with conduit in the field.
- ☞ Thread the tube mounting on conduit and torque until wrench-tight with 1,500 kgf-cm.

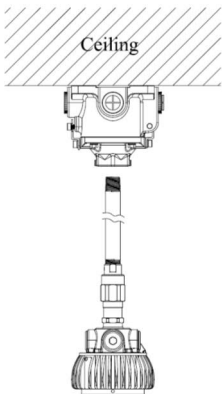


Figure 3

5.2.3 Bending Electrical Tube Mounting 25° /Bending Electrical Tube Mounting 90°

- ☞ The mounting type is for the use of angle bending electrical tube mounting (Figure 4/5).
- ☞ Tube mounting thread is 1-1/2” NPT for connecting with conduit in the field.
- ☞ Thread the tube mounting on conduit and torque until wrench-tight with 6600 kgf-cm. Tighten tube locking set screw to conduit with 1.0 N-m.

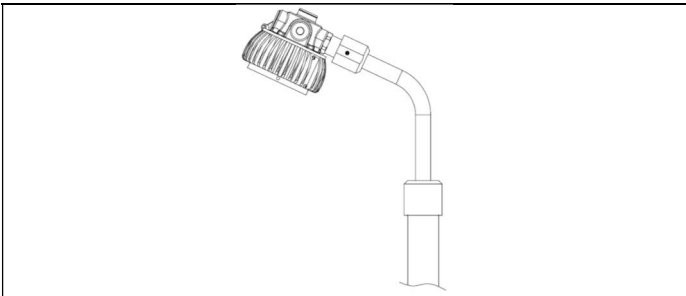


Figure 4

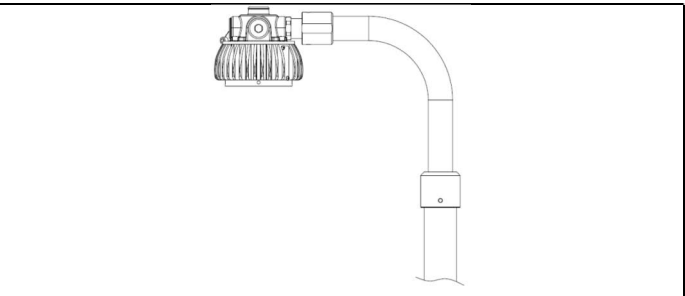


Figure 5

5.4 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 field wiring has been inserted correctly by AHJ.

6. Maintenance

- ▶ To avoid personal injury, disconnect power to the light and allow the unit to cool down before performing maintenance.
- ▶ Perform visual, electrical, and mechanical inspections on a regular basis. The environment and frequency of use should determine this. However, it is recommended that checks be made at least once a year. Frequency of use and environment should determine this. It is recommended to follow an Electrical Preventive Maintenance Program as described in the National Fire Protection Association Bulletin NFPA No. 70B: Recommended Practice for Electrical Equipment Maintenance.
- ▶ The lens should be cleaned periodically to ensure continued lighting performance. Clean the lens with a clean, damp, non-abrasive, lint-free cloth. If this is not sufficient, use a mild soap or a liquid cleaner. Do not use an abrasive, strong alkaline or acid cleaner as damage may occur.
- ▶ Inspect the cooling fins on the luminaire to ensure that they are free of any contamination (i.e. excessive dust build-up). Clean with a non-abrasive cloth if needed.
- ▶ Electrically check to make sure that all connections are clean and tight.
- ▶ Mechanically check that all parts are properly assembled.

7. 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.