LED Explosion Proof Luminaire

General Safety Information

- To reduce the risk of death, personal injury or property damage from fire, electric shock, falling parts, cuts/abrasions, and other hazards read all warnings and instructions included with and on the fixture box and all fixture labels.
- Before installing, servicing, or performing routine maintenance upon this equipment, please follow these general precautions.
- Commercial installation, service and maintenance of luminaires should be performed by a qualified licensed electrician.
- DO NOT INSTALL DAMAGED PRODUCT!
- Make sure that the supply voltage is the same as the luminaire voltage.
- Do not install where the marked operating temperatures exceed the ignition temperatures 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.

The picture is for illustration purposes only. Your model may vary

Specific Conditions of Use / Schedule of Limitations

- The equipment shall be installed according to IEC 60079-14:latest version and the operating instructions.
- An external grounding or equipotential connection is required, the cross-sectional area of grounding shall be 4mm^2 at least.
- Potential electrostatic charging hazard is existed.Clean the surface by wet cloth.
- Three IFR26650N3000 type cells connected in series are only be used for the RND-XX-100-240-EM series emergency LED luminaires.
- The selection and installation requirement of cable gland should follow the requirement in instruction.
- Normally leave the cable entry at the back of power cavity, it is also possible leave it at side of power cavity interchange with blanking element if end user specify cable entry location. But if end user make such nterchange onsite, additional routine test (restricted-breathing enclosures test) is needed.
- The cambered light cover of the equipment shall be protected from impact, the impact energy can not be greater than 2J. it shall be protected from mechanical impact and be installed at location where impact directly is forbidden.

LED Explosion Proof Luminaire

WARNING:

RISK OF ELECTRICAL SHOCK

- Turn off electrical power at the fuse or circuit breaker box before wiring the fixture to the power supply.
- Turn off the power when you perform any maintenance.
- Ensure the supply voltage is follow the voltage on the luminaire label.
- Make all electrical and grounded connections in accordance with the National Electrical Code and any applicable local code requirements.
- All wiring connections should be capped with wire connectors approved by IECEx/ATEX.
- The Luminaire must be powered by the wiring system with an equipment grounding conductor

CAUTION:

RISK OF INJURY

- Wear gloves and safety glasses at all times when removing luminaire from cartons, installing, servicing or performing maintenance.
- Avoid direct eye exposure to the light source while it is on.
- Account for small parts and destroy packing material, as these may be hazardous to children.

CAUTION:

RISK OF FIRE

- Keep combustible and other materials that can burn away from the luminaire and lamp/lens.
- MIN 90°C SUPPLY CONDUCTORS

Round X2 Series is suitable for use in the following hazardous (classified) areas as defined by the International Electrotechnical Commission (IEC) :
Hazardous Locations
IECEx / ATEX/ UKEX --- --- IEC 60079-0, IEC 60079-7, IEC 60079-15, IEC 60079-31
RND-65-24
II 3 G Ex ec nC nR IIC T4 Gc Ex ec nC nR IIC T4 Gc; Zone 2
II 2 D Ex tb IIIC T110˚C Db Ex tb IIIC T110˚C Db; Zone 21,22
RND-45-24 and RND-25-24
II 3 G Ex ec nC nR IIC T6 Gc Ex ec nC nR IIC T6 Gc; Zone 2
II 2 D Ex tb IIIC T85˚C Db Ex tb IIIC T85˚C Db; Zone 21,22
IP66 --- --- IEC 60529
Refer to the luminaire name-plate for specific classification information, maximum ambient temperature suitability and corresponding operating temperature (T-Code).

LED Explosion Proof Luminaire

Limitation of Liability

THE FOREGOING WARRANTY IS EXCLUSIVE, AND IS THE SOLE REMEDY FOR ANY AND ALL CLAIMS, WHETHER IN CONTRACT, IN TORT OR OTHERWISE ARISING FROM THE FAILURE OF PRODUCT AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ALL WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, WHICH
WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED TO THE EXTENT PERMITTED BY LAW AND, IN ANY EVENT, SHALL BE LIMITED TO THE WARRANTY PERIOD SPECIFIED ABOVE. THE LIABILITY OF SHALL BE LIMITED TO THE TERMS OF THE EXPRESS WARRANTY SET FORTH HEREIN. IN NO EVENT WILL BE LIABLE FOR ANY SPECIAL, INCIDENTAL OR CONSEQUENTIAL
DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES RESULTING FROM LOSS OF USE, PROFITS, BUSINESS OR GOODWILL,
LABOR COSTS, REMOVAL OR INSTALLATION COSTS, DECREASE IN THE LIGHT OUTPUT OF THE LAMP, AND/OR DETERIORATION IN THE LAMP'S PERFORMANCE, WHETHER OR NOT HAS BEEN ADVISED OF THE POSSIBILITY THEREOF. UNDER NO CIRCUMSTANCES SHALL'S ENTIRE LIABILITY FOR A DEFECTIVE PRODUCT EXCEED THE PURCHASE PRICE OF THAT PRODUCT. WARRANTY SERVICES PROVIDED UNDER THESE TERMS AND CONDITIONS DO NOT ENSURE THE UNINTERRUPTED OPERATION OF PRODUCTS; SHALL NOT BE LIABLE FOR DAMAGES CAUSED BY ANY DELAYS INVOLVING WARRANTY SERVICE.

This Limited Warranty gives you specific legal rights and you may also have other rights that may vary from state to state. Because some states or jurisdictions do not allow the exclusion or limitation of liability for consequential or incidental damages, this limitation may not apply to you.

LED Explosion Proof Luminaire

Warranty

- We warrant that each of our LED lighting luminaires (the “Product(s)”) that are purchased while this Warranty is in effect will be free from defects in materials and workmanship for the period of time specified in the table below (the “Warranty Period”). The Warranty Period runs from the date of the original purchase from its authorized distributor/dealer.
- We will repair, or at our option, replace the defective product (exterior finish, housing and heat sinks, lens, LED light source, power supply) during the standard warranty period. This warranty applies only to the repair or replacement of the product and only when the product is properly handled, installed and maintained according to our instructions.
- This warranty excludes defects resulting from improper installation, acts of God, fire, vandalism or civil disturbances, power surges or improper power supply, and corrosive environment installations.
- This warranty does not cover equipment, systems or components from other manufacturers that the Purchaser uses in conjunction with the Product. Any repair, alteration or modification of the Product, including replacement of Product components with components of other manufacturers will void the warranty in its entirety.

Product	Which Model Nos. are Covered by this Warranty	Warranty Period
LED Explosion Proof Luminaire	RND-XX-24 Series	Five (5) Years

LED Explosion Proof Luminaire

MODELS:

RND - 2 - 3 - 4 - 5 - 6 - 7 - 8 - 9

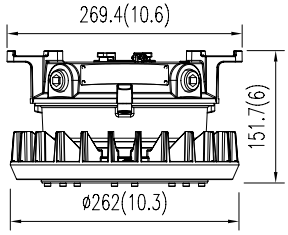
2= Wattage (25=25W, 45=45W, 65=65W)
3= Voltage (24=24Vdc)
4= CCT (57=5700K, 5K=5000K, 4K=4000K)
5= Beam (110=110°,180=>180°,60=60°)
6= Rating (X2=Zone2,21)
7= Lens (CG=Clear Glass, DG=Diffuse glass, DLG=Diffuse Drop Lens Glass)
8= Color (GRY=Gray)
9= Mounting (PDCG=Pendant & Ceiling, YKE=Yoke)

Operating Characteristic:

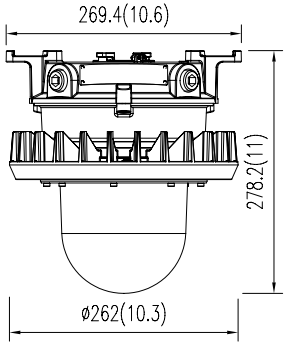
Rated voltage	Power	Model	Ambient Temp.
24V dc	25W	RND-25-24	-40°C ≤Ta≤ +55 °C
	45W	RND-45-24	
	65W	RND-65-24	

Product Dimensions

Unit: mm(in)



Flat glass



Diffuse Drop Lens Glass

LED Explosion Proof Luminaire

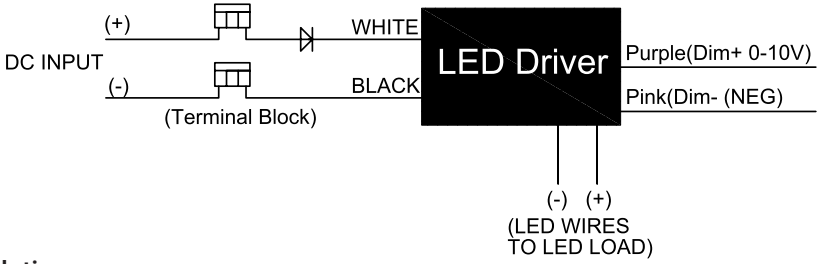
WIRING

CAUTION:

Turn off electrical power at the fuse or circuit breaker box before wiring the fixture to the power supply.
Connecting panels to DC source supply:
All units must be individually connected to the DC supply.

DC INPUT: White = DC+
Black = DC-

Dimming control wire*: Purple = Dim+ 0-10V input
Pink = Dim-(NEG)



Installation

Electrical Connection:

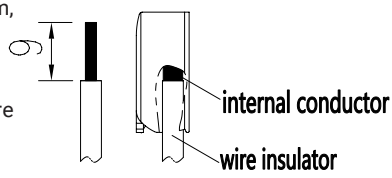
1. Connect field supply wires to luminaire wire leads (Use Wago connectors,wire peeling 9mm,as shown in the diagram, the wire insulator is in contact with the internal conductor).

2. Wire per wiring diagram and per required electrical codes.

3. Close the driver housing, making sure that all wires are safely inside the box.

4. Check the tightness of the conduit and the fixture.

5. Turn the power on.

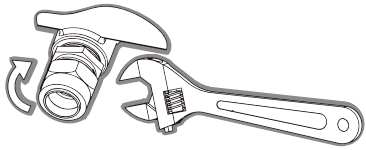


Note1: All installations must refer to RSL " NPT3/4" or M25 Gland Assembly Instructions" to prevent water leakage and sealing.

Note2: After a certain period of time, the lamp can function normally and it is prohibited to reopen the cover for wiring and inspection. In case you need to reopen the cover for wiring and inspection (due to faults), please contact the original manufacturer to replace the seal ring in the corresponding opening position.

Note3: Regarding the application site of explosion-proof "Zone 2", standard gland+thread sealant(Loctite 567)+sheath cable(Dense cable) is used in the open interface reserved for the fixture, to be introduced into the fixture power compartment; After installation, open the other reserved interface of the fixture (one of the plugs) as the negative pressure testing interface, use appropriate equipment for negative pressure testing of the fixture, add thread sealant(Loctite 567) after testing, and then install the plug (NPT3/4" plug: torque value of 20 N·m; M25 plug: torque value of 6 N·m).

LED Explosion Proof Luminaire



CAUTION: Never back off an installed pipe fitting to achieve proper alignment. Loosening installed pipe fittings will corrupt the seal and contribute to leakage and failure.(*The NPT3/4" Gland Applicable standard: ASME B1.20.1-2013)

Servicing

- To avoid personal injury, disconnect the 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 should be made at least once a year. The frequency of use and environment should determine this.
- The external glass should be cleaned periodically to ensure continued luminaire performance. Clean the glass 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.
- Mechanically check to make sure all parts are properly assembled.
- Electrically check to make sure that all connections are clean and tight.

LED Explosion Proof Luminaire

NPT3/4" or M25 Gland Assembly Instructions:

STEP 1: Inspect the port and fitting to ensure that both are free of contaminants and excessive burrs and nicks.

STEP 2: Apply a stripe of an anaerobic liquid pipe sealant around the male threads leaving the first two threads uncovered.

Note:Gland Selection Instructions

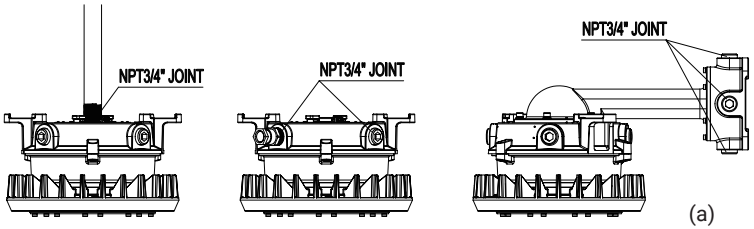
Thread characteristics:3/4"-14NPT or

M25 X 1.5, Conform to zone1 or zone 2 ,

zone 21, zone 22.

Wiring installation

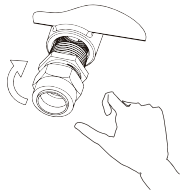
In figure a, the NPT3/4" or M25 joint sealed with a pipe sealant(Loctite 567).



(a)

CAUTION: Always use extreme caution and follow manufacturer's recommendations for proper application of any sealant in order to prevent contamination.

STEP 3: Screw the finger tight into the port.

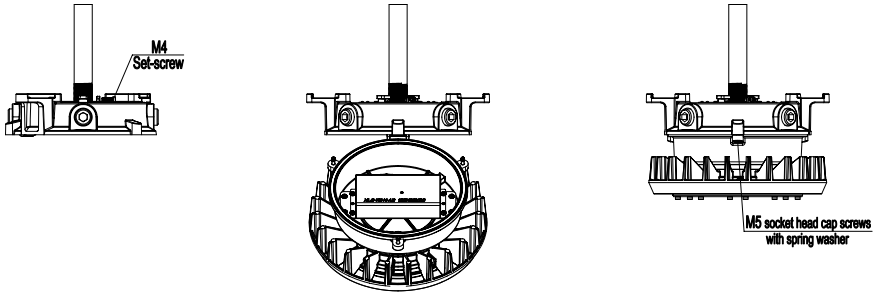


STEP 4: NPT3/4" Gland Wrench tighten the fitting to the correct Turns Past Finger Tight position. A properly assembled fittings total thread engagement should be 4.5 to 6 turns.

M25 Gland Tighten the gland with the tightening tool(Hexagon socket wrench), and the torque is 8N·m (±1N·m). The gland screw must ensure that the gland flange surface is tightly attached to the corresponding interface upper end face.

LED Explosion Proof Luminaire

1.Pendant:



step1 step2 step3

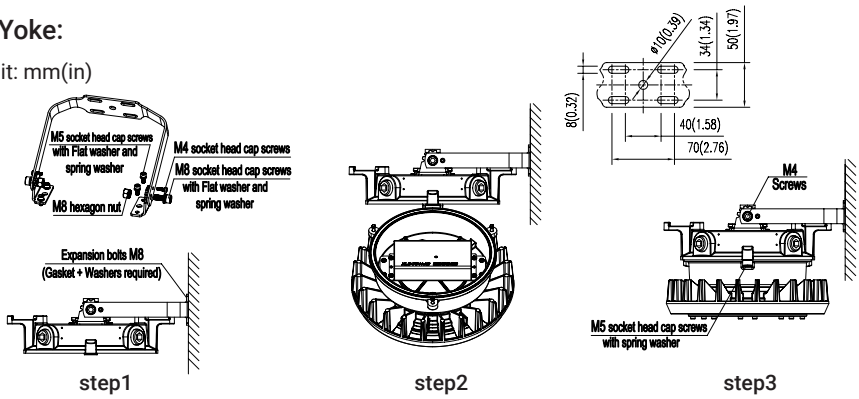
Step 1. Loosen the three (M5) hexagon socket head cap screws of the hood with torque value (5 N·m). Thread the pendant hood onto the NPT 3/4 inch conduit. Tighten the M4 set-screw.

Step 2. Hang the fixture onto the hinge hook of the hood and connect field supply wires to luminaire wire leads (Use Wago connectors) according to the wiring diagram.

Step 3. Close driver housing, making sure that all wires are safely inside the driver box. Tighten three captive closing screws (M5) to (5 N·m).

2.Yoke:

Unit: mm(in)



step1 step2 step3

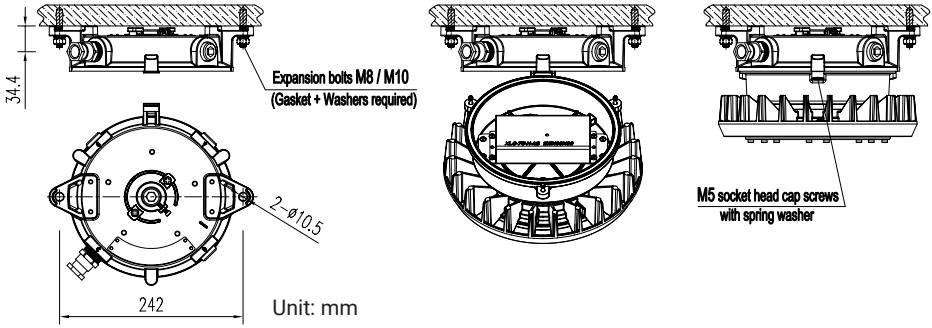
Step 1. Loosen the three (M5) hexagon socket head cap screws of the hood with torque value (5 N·m). Secure the yoke and hood with 4 (M8) expansion bolts (not provided) directly to a structural member; Adjust the angle (6x30°) of the yoke and fix the position with M4 screws.

Step 2. Hang the fixture onto the hinge hook of the hood and connect field supply wires to luminaire wire leads (Use Wago connectors) according to the wiring diagram.

Step 3. Close driver housing, making sure that all wires are safely inside the driver box. Tighten three captive closing screws (M5) to (5 N·m).

LED Explosion Proof Luminaire

3.Yoke (Ceiling):



step1 step2 step3

Step 1. Loosen the 3 (M5) hexagon socket head cap screws of the hood with 5 N·m torque value. Mark and drill desired location on the mounting surface. Secure the hood with 2 (M8 / M10) expansion bolts (not provided) directly to a structural member.

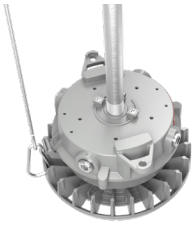
Step 2. Thread onto an NPT 3/4 inch conduit. Hang the fixture onto the hinge hook of the hood. Connect field supply wires to luminaire wire leads (Use Wago connectors) according to the wiring diagram.

Step 3. Close driver housing, making sure that all wires are safely inside the driver box. Tighten three captive closing screws (M5) to (5 N·m).

LED Explosion Proof Luminaire

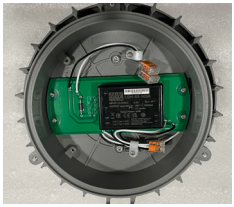
INSTALLATION CHECKLIST

1. Verify if the steel pipe or cord grip are installed to at least five (5) full threads into the conduit entries of the fixture.



2. Verify field supply wires to luminaire (Wago connectors) per wiring diagrams and all electrical connections are tightened.

3. Verify all Wires are safely and neatly inside driver housing, Gasket of the housing is placed into the slot nicely and evenly.



4. Verify the three M5 captive closing screw is tightened to (5 N·m).

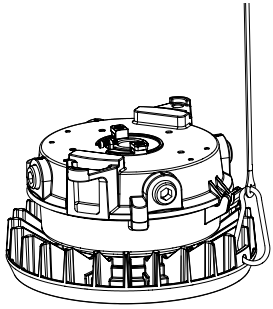
5. Follow RSL " NPT3/4" or M25 Gland Assembly Instructions " to prevent water leakage and sealing.

LED Explosion Proof Luminaire

Safety cable installation (kit sold separately)

Step 1. Install Secondary Retention Cable to secure location per standards.

Step 2. Secure Carabiner through thru-holes (Dia-9mm) on top of the fixture.



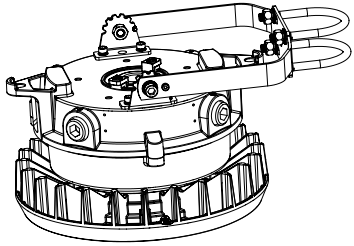
Pipe clamp installation (kit sold separately)

Step 1. Check the diameter of the pipe to make sure you are using the correct size clamp.

Step 2. Place the Fixture Yoke against the installed pipes.

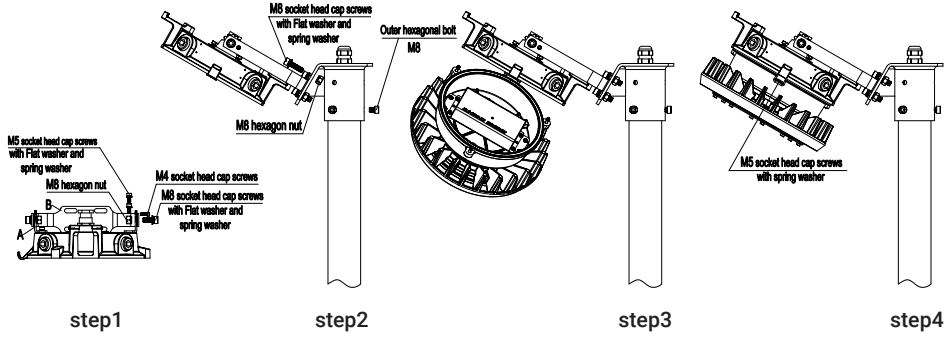
Step 3. Place the clamp (U-bolts) on the pipe and fit it through the openings in the yoke.

Step 4. Adjust the fixture to the desired angle. Insert and tighten the supplied locking nuts and washers to secure the clamp to the pipe.



LED Explosion Proof Luminaire

4.Stanchion slip fitter (Pole Type Stanchion):



Step 1. Loosen the three (M5) hexagon socket head cap screws of the hood with 5 N·m torque value. Mount the yoke part A and B combination on the drive cover with M5 screws and M8 screws & nuts, adjust the angle of the yoke (6x30°) and lock it with M4 screws.

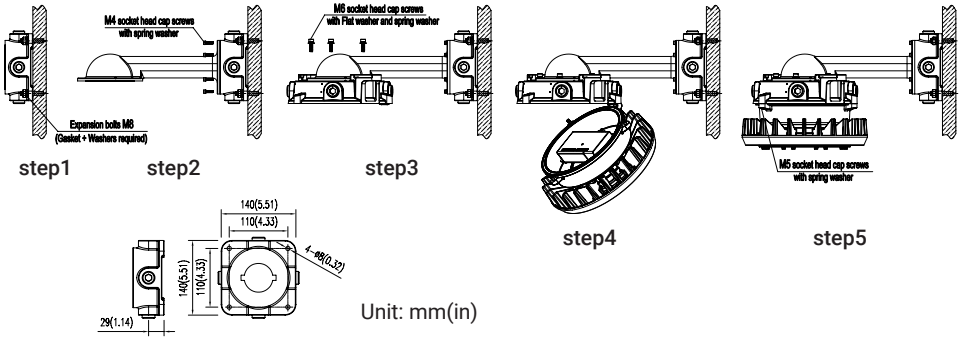
Step 2. Attach the yoke with driver cover to the pole mount yoke with M8 screws & nuts, then the pole mount yoke is snapped into the upper end of the strut, which is NPT 2" (2.375" pole OD) or NPT 1-1/2" (1.9" pole OD), and locked with M8 bolts.

Step 3. Hang the fixture onto the hinge hook of the hood. Connect field supply wires to luminaire wire leads (Use Wago connectors) according to the wiring diagram.

Step 4. Close driver housing, making sure that all wires are safely inside the driver box. Tighten three captive closing screws (M5) to (5 N·m).

LED Explosion Proof Luminaire

5.Wall 90°:



Step 1. Mark and drill desired location on the mounting surface, Secure the junction box (provided) with 4 (M8) expansion bolts (not provided) directly to a structural member; thread onto an NPT 3/4 inch conduit.

Step 2. Pull field wiring into the wall mount adapter. Secure the adapter with 6 (M4) screws (provided) directly to the junction box. Make sure the gasket of the junction box is properly inserted into the slot.

Step 3. Loosen the 3 (M5) hexagon socket head cap screws of the hood with torque value (5 N·m). Use the 5 (M6) hexagon socket screws with torque value (5 N·m.) to fix the hood onto the adapter. Make sure the gasket of the adapter is properly inserted into the slot.

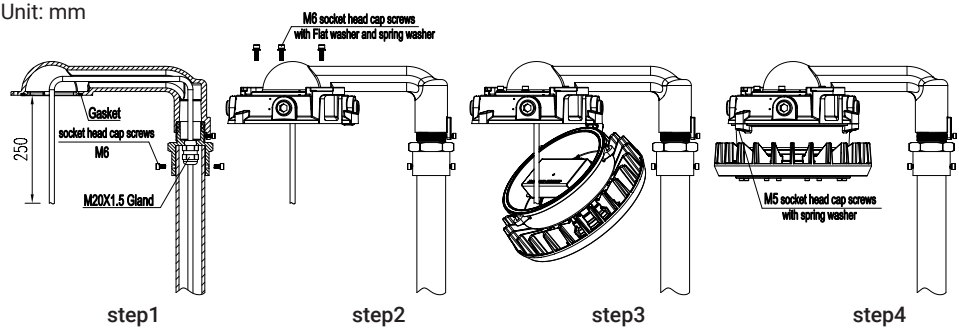
Step 4. Hang the fixture onto the hinge hook of the hood. Connect field supply wires to luminaire wire leads (Use Wago connectors). Wire per the wiring diagram.

Step 5. Close driver housing, making sure that all wires are safely inside the driver box. Tighten three captive closing screws (M5) to (5 N·m).

LED Explosion Proof Luminaire

6.Stanchion 25° / Stanchion 90°:

Unit: mm



Step 1. Make sure the gasket of the adapter is properly inserted into the slot. Secure the cable in the NPT 1-1/2" conduit in the adapter via the M20X1.5 glands with the cable exposed to the appropriate length of the adapter (≥0.25m). Connect the adapter to the NPT 1-1/2" conduit, determine the proper orientation, and tighten the (M6) set screw.

Step 2. Loosen the 3 (M5) hexagon socket head cap screws of the hood with torque value (5 N·m). Use the 5 (M6) hexagon socket screws with torque value (5 N·m.) to fix the hood onto the adapter.

Step 3. Hang the fixture onto the hinge hook of the hood. Connect field supply wires to luminaire wire leads (Use Wago connectors) according to the wiring diagram.

Step 4. Close driver housing, making sure that all wires are safely inside the driver box. Tighten three captive closing screws (M5) to (5 N·m).

Wire guard installation (kit sold separately)

Step 1. Loosen the 4 (M4) hexagon socket head cap screws of the lens cover with torque value 5 N·m.

Step 2. Locate and center the guard to the outside of the fixture housing with the (4x) clips aligned with the holes of the screws.

Step 3. Install and tighten the 4 (M4) screws through the mounting clips and into the housing screw holes as shown in torquing to (3 N·m).