

INSTALLATION DATA SHEET

EXHBF SERIES

LED LUMINAIRE FOR USE IN HAZARDOUS LOCATIONS



II 2 G Ex db op is IIB+H2 T5 Gb
-40°C ≤Tamb≤+65°C, IP66

II 2 D Ex op is tb IIIC T100°C Db
-40°C ≤Tamb≤+55°C, IP66

ATEX: ETL22ATEX0137X
IECEX: IECEX ITS 19.0026X

WARNING!

- To reduce risk of fire or explosion, do not install where the marked operating temperature exceeds the ignition temperature of the hazardous atmosphere(s).
- These luminaires should be installed by qualified technicians using suitable hazardous location wiring methods in strict accordance with the National Electrical Code, NFPA 70 and any local requirements.
- To prevent risk of electrical shock, deactivate/ disconnect power supply before opening. Keep tightly closed when in operation.
- DO NOT OPEN WHEN ENERGIZED.
- DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT
- POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE MAINTENANCE DATA
- Install the luminaire in a location that minimizes the risk of impact

EQUIPMENT APPLICATION

This luminaire is intended for use in a hazardous atmosphere in Zone 1 and 21 to the requirements of ATEX Directive 2014/34/EU. The product can be used inside or outside to illuminate areas with potentially hazardous atmosphere.

CONFORMITY WITH STANDARDS

This luminaire conforms to the standards specified in the Declaration of Conformity. It has been designed, manufactured and tested in accordance with BS EN 9001. 94/9 EC: Equipment and protective systems intended for use in potentially explosive atmospheres.

IEC 60079-0: 7th Edition (2017)– Explosive Atmospheres, General Requirements

IEC 60079-1: 7th Edition (2014-06) – Explosive Atmospheres - Equipment protection by flameproof enclosures “d”

IEC 60079-28:2015 - 2nd Edition - Explosive atmospheres - Protection of equipment and transmission systems using optical radiation

IEC 60079-31: 2013 - 2nd Edition - Explosive Atmospheres - Equipment protection by flameproof enclosures “t”

EN 60079-0:2018 – Explosive Atmospheres, General Requirements

EN 60079-1:2014 – Explosive Atmospheres - Equipment protection by flameproof enclosures “d”

EN 60079-28:2015 - Explosive atmospheres - Protection of equipment and transmission systems using optical radiation

EN 60079-31:2014 - Explosive Atmospheres - Equipment protection by flameproof enclosures “t”



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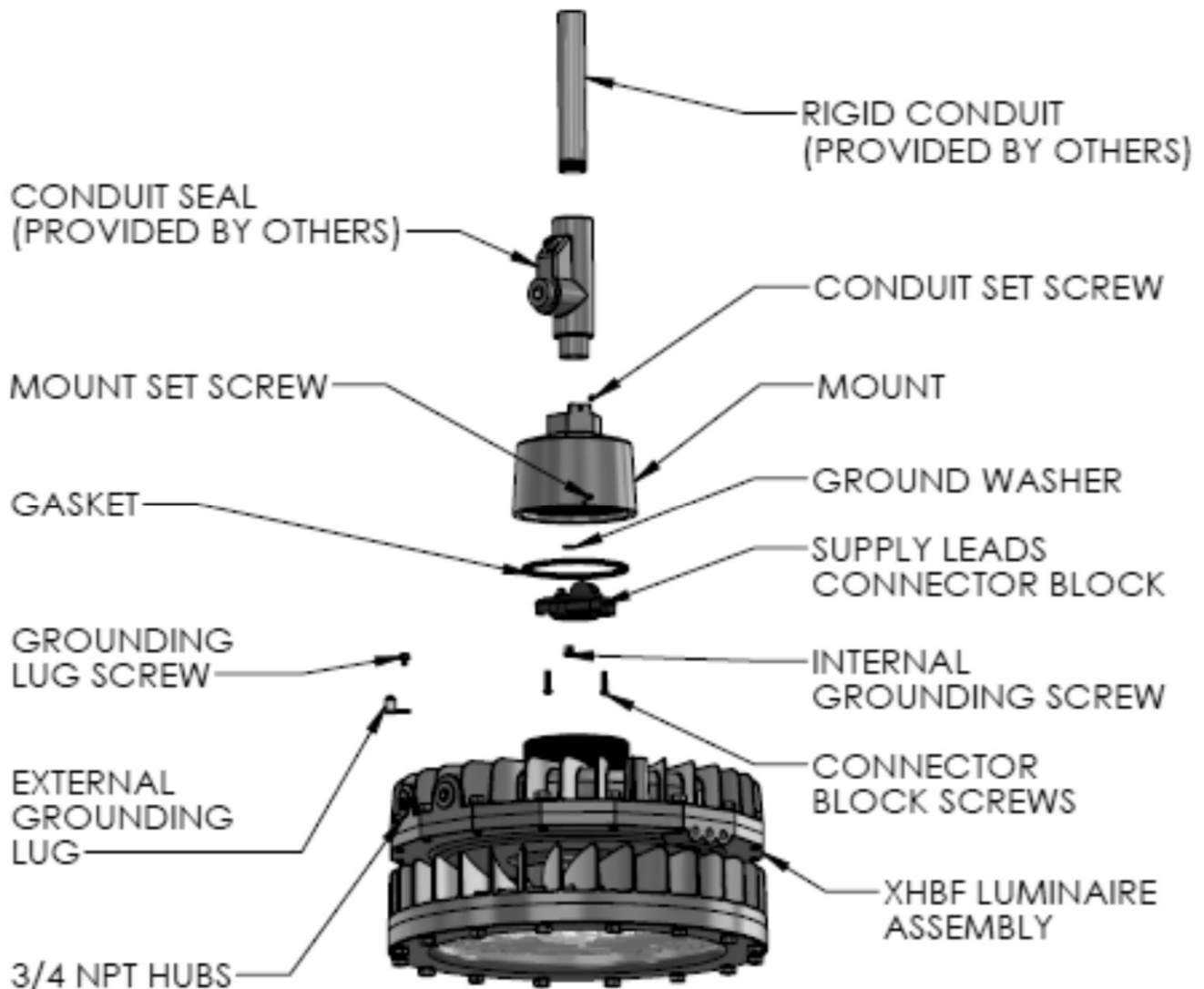
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Mount Installation



Technical Data

Rated Input Voltage: 100-277VAC 50/60Hz and 347V/480V 60Hz
Operating Temperature -40°C to +65°C
Rated Input Power: 45W, 60W, 75W, 87W, 96W, 105W, 120W and 135W
Housing Material: Copper Free Aluminum (less than 0.04% Aluminum).
Housing Finish: Greyhound Grey Baked-on Epoxy Powder Coat
Dimensions: See Dimensional Diagrams
Protection Glass: Tempered Glass
Conduit entries: 3/4 in NPT or 1in NPT
Weight: up to 25 Kg (55 lbs)



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SPECIAL CONDITIONS OF USE

- The equipment utilizes external non-metallic materials which pose a potential electrostatic charging hazard. Refer to the manufacturer's instruction manual for details on the mitigation of electrostatic charging.
- The equipment lens has been assessed to the requirements of low risk impact. The end user shall conduct a risk assessment and shall only install the equipment in an area where the risk of impact on the lens has been determined to be negligible.
- It is not permitted to modify or repair flameproof joints in any way.
- The equipment recorded a branching point temperature 72°C. The end user shall ensure all cabling, cable entries and conductors within conduit are adequately rated for this temperature.
- All sealing devices including cable glands, blanking elements, thread adapters and stopping plugs are required to be certified to type of protection Ex db or tb as applicable, be suitable for use in an ambient temperature range of -40°C to 72°C, be suitable for use in Group IIB + H2 or Group IIIC as applicable and be suitably sized for the cabling which is carried. Installation shall take into account any applicable special conditions for safe use or schedule of limitations and all relevant installation requirements of IEC 60079-14. No more than one thread adapter may be used on any entry.
- In the event of damage or loss to enclosure fasteners they shall be replaced with a bolt meeting the following specification:
 - Hex head (ISO 4017), M8 1.25x30mm, 6g tolerance (per ISO 965-1 and 965-3), Stainless steel, 450MPa minimum yield strength.

INSTALLATION, WIRING AND ADJUSTMENTS:

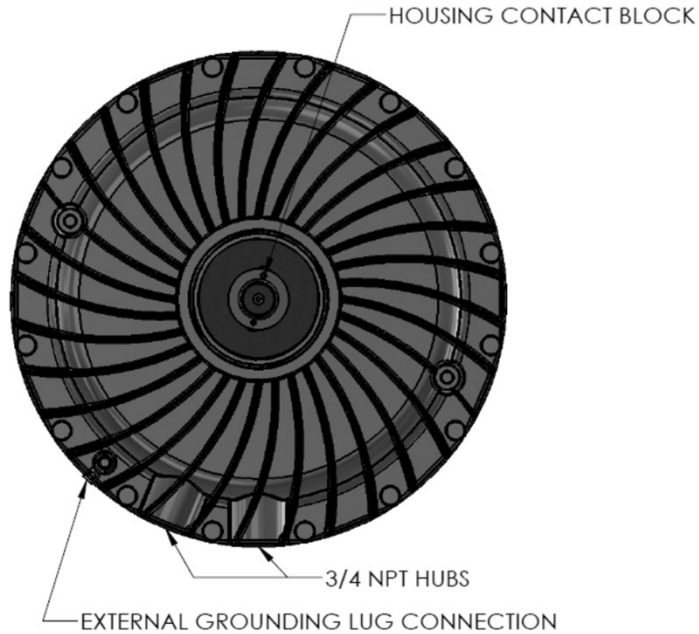
1. This luminaire is equipped with 3/4 NPT or 1 NPT hubs for incoming power supply and sealing fitting (not provided). Luminaires are provided without conduit sealing devices, stopping plugs, and reducers. Proper selection of conduit sealing devices, stopping plugs and reducers must occur in the field. The conduit sealing device needs to be closest to the enclosure with a distance no more than the size of the conduit. When a reducer is installed to the enclosure, the sealing device and enclosure shall maintain the distance indicated above.
2. This unit is furnished completely assembled. Check the luminaire label to ensure correct voltage and frequency.
3. Before installing, make sure that the circuit is deactivated.
4. Loosen the set screw and unscrew the luminaire mount.
5. Loosen the two screws (28109) inside the mount and remove the contact assembly (26641).
6. Install the mount in place, tighten the set screw and pull the incoming wires from the conduit, through the mount's hub. For Wall mounts, secure to desired mounting surface using (4) 1/4in (M7) bolts or lag screws (not provided). For Trunnion mounts, secure to desired mounting surface using at least (2) 3/8in (M9) bolts or lag screws (not provided). Remove the 16 M8 screws from the driver's housing and make incoming power connection via driver housing's 3/4 NPT hubs. Close the driver housing and reinstall the 16 M8 screws. Tighten the screws to 15 ft-lb of torque in a crisscross pattern.
7. Attach the power leads to the contact assembly (26641) and attach the internal grounding lead (16 AWG or 1.5 mm² minimum) to the grounding screw.
8. Re-attach the contact assembly into the mount and tighten the (28109) screws.
9. Re-install the luminaire assembly and the mount, and tighten the set screw.
10. Attach the external grounding lead (12 AWG or 4 mm² minimum) to the lug provided on the back of the housing.
11. To make vertical adjustments on the trunnion, loosen the pivot bolts on the yoke and aim to desired angle. **MAKE SURE NOT TO EXCEED ANY AIMING ANGLE RANGE. DO NOT AIM SHINING STRAIGHT UP OR WITHIN 45° OF IT.**
12. Re-tighten the pivot bolts.



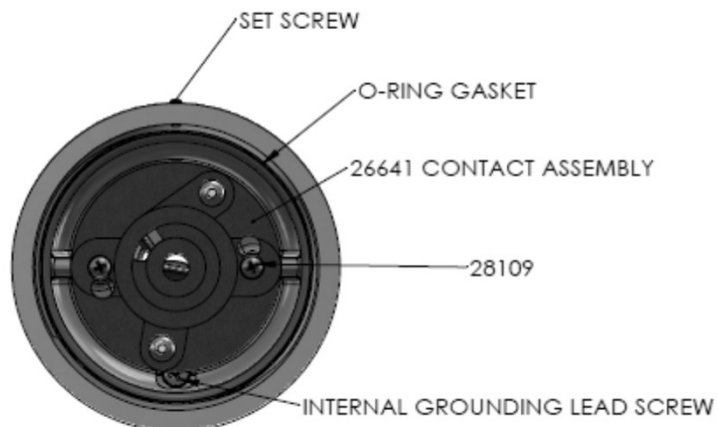
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MOUNT AND HOUSING CONTACT CONNECTION

LUMINAIRE HOUSING



MOUNT



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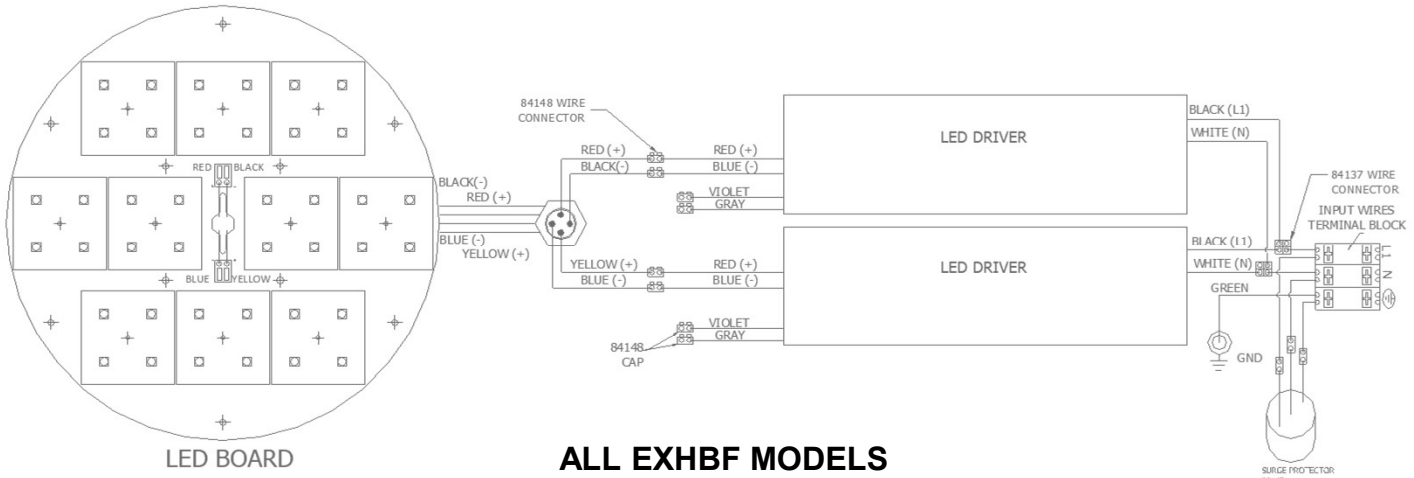
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WIRING DIAGRAMS



ALL EXHBF MODELS

REPAIRS / OVERHAUL / MODIFICATION:

The relevant national regulations which apply to the maintenance / servicing of electrical apparatus in hazardous atmospheres shall be observed. Only joints that is to be opened by the user is the driver housing and mount. Contact Rig-A-Lite for information on the flameproof joints. Should the Luminaire enclosure be damaged, only a replacement will be permitted. The luminaire should be returned to Rig-A-Lite for inspection/repair. Modifications to the device or changes of it's design are prohibited.

The equipment must be operated according to the intended purpose in a perfect and undamaged condition.

MAINTENANCE DATA:

1. Although no routine maintenance is required to keep this luminaire functional, it should be checked periodically to ensure it is working properly, and to look for any external damage.
2. For optimum performance, keep the light transmission portion of the luminaire clean.
3. Visually check for undue heating evidenced by discoloration of wires and other components, damaged parts or leakage of water or corrosion in the interior.
4. Only joints that is to be opened by the user is the driver housing and mount. Contact Rig-A-Lite for information on the flameproof joints.
5. Replace all worn, damaged or malfunctioning components. Check that all mechanical components are properly assembled and secure. Make sure all electrical connections are safe and secure.
6. Clean and inspect all gaskets before putting the luminaire back in service.
7. If this product is used in a combustible dust area, clean the outside on a regular basis to prevent excessive accumulation of dust. To reduce the risk of ignition due to electrostatic discharge, avoid contact with the luminaire while an explosive atmosphere is present. Clean Only with a Damp Cloth.
8. An optional stainless steel wire guard can be installed on the luminaire to protect the luminaire. Refer to Rig-A-Lite's website or contact your nearest Rig-A-Lite distributor for information.



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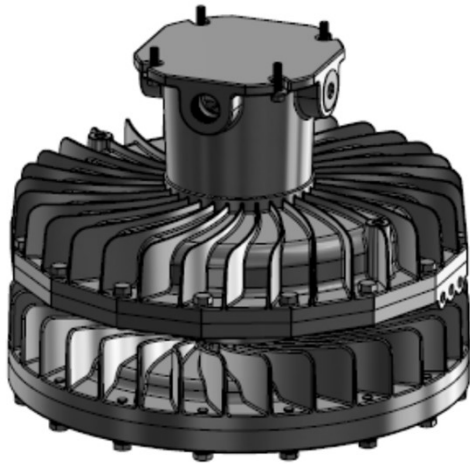
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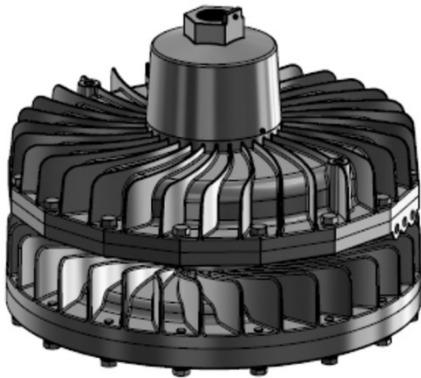
MOUNTING OPTIONS



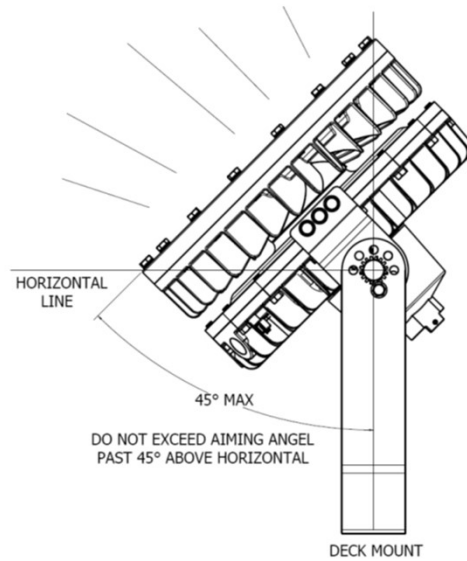
CEILING MOUNT



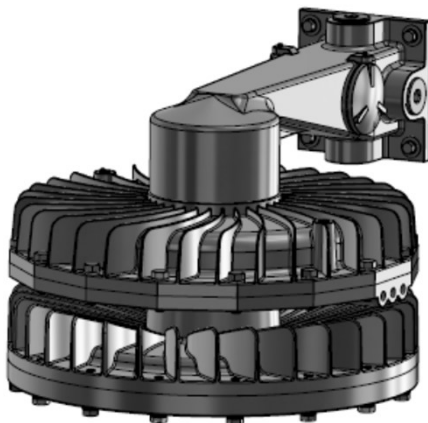
TRUNNION MOUNT



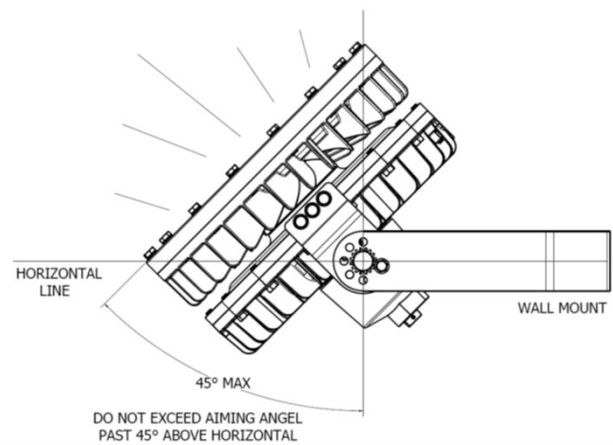
PENDANT MOUNT



DECK MOUNT



WALL MOUNT



WALL MOUNT



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