

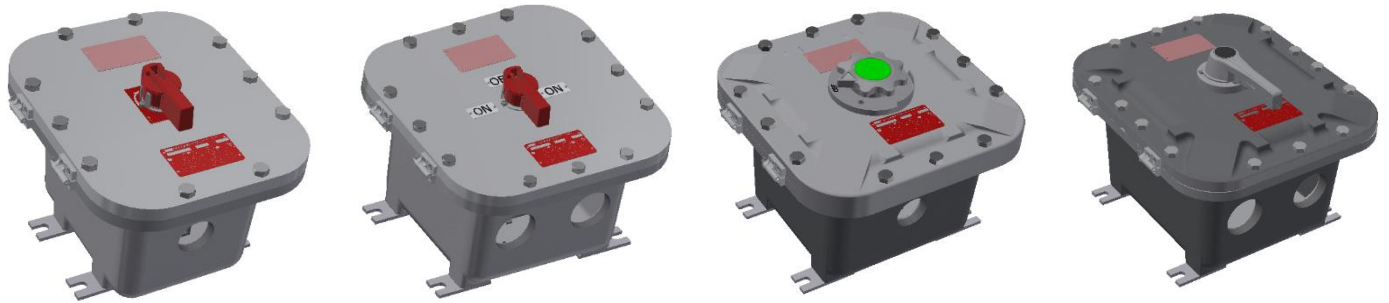


KILLARK

HUBBELL ELECTRICAL PRODUCTS
A Division of HUBBELL INCORPORATED (Delaware)
2112 Fenton Logistics Park Blvd
Fenton, Missouri 63026 USA

INSTALLATION, OPERATION & MAINTENANCE DATA SHEET

SERIES EXB-FDS & -NFD & EXBLTP-FDS & -NFD



FUSED & NON-FUSED DISCONNECT SWITCHES Series EXB-FDS &-NFD & EXBLTP-FDS & -NFD

**Class I, Groups B, C, and D; Class II, Groups F and G; Class III;
Enclosure Types 3, 4 and 4X; +60°C**

Certification Information:



North American (NEC/CEC) Certification:

Class I, Div 1 and 2, Groups B,C,D
Class II, Divs 1 and 2, Groups F, G; Class III
Type 3 / 4 / 4X T_{ambient} = -25 °C to + 60 °C

Standards Applied:

CSA C22.2 No. 25 and 30
CSA C22.2 No. 14
CSA No. 94.1 / 94.2
UL 1203
UL 508
UL50 / UL50E

CAUTION:

Before installing, make sure you are compliant with area classifications, as failure to do so may result in bodily injury, death and property damage. Do not attempt installation until you are familiar with the following procedures. All installation must comply with the applicable Electrical Code(s).

Make sure that the circuit is de-energized before starting installation or maintenance.

Verify that the installation is grounded. Failure to ground will create electrical shock hazards, which can cause serious injury and or death.

IMPORTANT:

Please read these instructions carefully before installing or maintaining this equipment. Good electrical practices should be followed at all times and this data should be used as a guide only.

Technical information, advice and recommendations contained in these documents is based upon information that Killark believes to be reliable. All the information and advice contained in these documents is intended for use only by persons having been trained and possessing the requisite skill and know-how and to be used by such persons only at their own discretion and risk. The nature of these instructions is informative only and does not cover all of the details, variations or combinations in which this equipment may be used, its storage, delivery, installation, check out, safe operation and maintenance. Since conditions of use of the product are outside of the care, custody and control of Killark, the purchaser should determine the suitability of the product for his intended use, and assumes all risk and liability whatsoever in connection therewith.





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Application Information -

a: These component enclosures form the basis for certification of a unit or protection system for use in hazardous areas other than Zone 0.

b: All internal components mounted in this enclosure should be Certified (Listed Or Recognized) for the application and installed in accordance with the component manufacturer's installation instructions.

c: Care shall be taken by the end-use Control Station manufacturer to ensure proper separation of circuits (voltages), and spacings (creepage and clearance distances between live parts of opposite polarity, and between all live parts and dead metal) are maintained.

d: A complete Control Station should be certified by a 3rd party to the applicable product safety Standard(s), and all supply wiring methods (including grounding) shall be in accordance with the local/jurisdictional electrical code(s).

Installation Instructions -

NEC/CEC: This junction box must be installed by trained, qualified and competent personnel. Installation must comply with local, state and national regulations, as well as safety practices for this type of equipment.

The mounting location must be flat and provide proper clearance, rigidity and strength to support the enclosure and all contained devices. (Refer to Figures 1 & 2)

WARNING: Electrical power **must** be **OFF** during installation. **Disconnect** primary power source and **lock out**.

Larger enclosures are equipped with factory installed hinges. Enclosure should be mounted with hinges on the left. **Do not** mount the enclosure with hinges on the **top** or **bottom** side. (See Figure 3)

Securely fasten the enclosure to the mounting location, using M12 or 1/2" diameter steel mounting bolts and washers, or washer head bolts. Install sealing fittings and conduit using an approved electrical conducting type lubricant on the threads. The conduit thread connections must be tapered pipe thread conforming to ANSI/ASME B1.20.1.

A minimum of five (5) full threads engagement is required for all NPT device connections/ threaded openings. A minimum of seven (7) full threads engagement is required for all NPSM/Metric device connections/ threaded openings.

Sealing fittings, approved for the specific hazardous location where the enclosure is used, must be installed within 18" of the enclosure for NEC/CEC Class and Division applications. For Zone applications, the seal must be immediately adjacent to the enclosure.

All unused enclosure openings must be plugged using a certified close-up plug approved for the specific hazardous location where the enclosure is used. Plugs must be tightly installed with a minimum engagement of five (5) full threads for NPT threads, and seven (7) full threads for NPSM/Metric threads..

NOTE: If installing a suitable Type 4X breather and/or drain, make certain they are Certified for use in the (Zone or Division Classified) hazardous location(s) where they are to be used.





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Installation Instructions (cont'd) -

Inspect and clean the machined flange flame joint surfaces of both the cover and box. Surfaces must be smooth, free of nicks, scratches, dirt or any foreign particle build-up that would prevent a proper seal. Surfaces must seat fully against each other to provide a proper explosion-proof joint. Clean surfaces by wiping with a clean, lint-free cloth.

Apply a light coat of Killark "LUBG" lubricant to flange surfaces and close the cover. Install and tighten all cover bolts to 40Nm (30 ft. lbs.). Make certain no cover bolts are omitted. Use only those bolts supplied with the enclosure. Check the bolted joint with a .0381mm (.0015") thick feeler gauge. The gauge **must not enter** the joint more than 3.175mm (1/8") at any point.

NOTE: Missing bolts or an improper joint can result in an explosion, creating a potential for physical injury or property damage.

Maintenance Instructions –

After installation, this junction box should be inspected at regular intervals. A visual inspection should ascertain that all cover bolts are installed and still tight; that all conduit connections are intact and free of corrosion, and that the enclosure mounting bolts are tight and in good condition.

If the enclosure must be opened for servicing, to check or replace internal devices and apparatus, the following procedures should be followed.

WARNING: Before servicing the enclosure, be certain the electrical power is OFF. Disconnect the enclosure from primary power source and lock out.

Remove all cover bolts. Clean and inspect. Replace any corroded, bent or otherwise damaged bolts with new, factory authorized bolts obtained from an authorized Killark distributor.

Open enclosure. **Do not** use a hammer, screwdriver or any prying tool to open cover, except as shown in Figure 4. Inspect cover hinges. If hinges are damaged or do not function properly, contact a factory authorized service representative for hinge replacement and installation.

Inspect machined, flame joint flange surfaces. Surfaces must be smooth, free of nicks, scratches, dirt or any foreign particle build-up that would prevent a proper seal. Should surface be damaged contact factory. Never attempt to rework surfaces by sanding, grinding, etc. Surfaces must seat fully against each other to provide a proper explosion-proof joint.

Inspect water exclusion gasket. If gasket is damaged, contact Killark Customer Service (**1-800-KILLARK**) for replacement gasket and instructions on repair.

Contact a factory authorized representative for a replacement cover. When removing gasketed cover for replacement, **do not** detach hinge body from cover. It should be detached at the back-box.

Remove cover and hinge body from enclosure by removing the hinge pins. (See Figure 5) The damaged gasket can be removed from the cover and the cover without gasket can be safely used in Class I & II hazardous (classified) locations, however, the enclosure will **no longer maintain its Type 3, Type 4**.

Clean flange surfaces by wiping with a clean, lint-free cloth. Apply a light coating of Killark "LUBG" lubricant to flange surfaces and close cover. Install and tighten **all** cover bolts to 40Nm (30 ft. lbs.). Make certain no cover bolts are omitted. Use **only** factory authorized bolts. Check the flame joint with a .0381mm (.0015") thick feeler gauge. The gauge must not enter the flame joint more than 3.175mm (1/8") at any point.

Missing bolts or an improper flame joint can result in an explosion, creating a potential for physical injury and property damage.