



EPCS-1X3PS.HOA-24V-PTM.5K

SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

The Larson Electronics EPCS-1X3PS.HOA-24V-PTM.5K Explosion Proof VFD Remote Control Station is suitable for preventing the ignition of external, flammable atmospheres in hazardous locations. This unit features the following classified ratings: Class I, Division 1 & 2 (Groups C, D); Class II, Division 1 (Groups E, F, G); Class II Division 2 Groups F & G and Class III. The explosion proof switch comes with a 600V AC voltage rating and a weatherproof build. When purchasing this product, please choose between 1/2" or 3/4" NPT hub sizes and feed thru/dead end options.

WARNING: To avoid risk of explosion, all flat machined surfaces must be kept clean and free from scratches, dents, debris, paint, and corrosion. The flat machined surfaces are explosion proof joints, and must be clean and undamaged on both the enclosure and cover.

1. Do not use this equipment other than the intended use as specified on the equipment nameplate.
2. Turn **OFF** the supplying circuit before beginning installation or performing any maintenance.
3. Service should be performed by qualified service personnel.
4. All installations must comply with the applicable local and/or National Electrical Code. (Note: In the orientation of the enclosure (box & cover), the "TOP" is considered to be at the location of the cast-in part numbers.)

INSTALLATION

1. The surfaces of the flat ground joint are precision machined to insure an explosion proof joint and must be protected from scratches or damage during installation.
2. When switch is mounted in the enclosure, it must be mounted to agree with cover indication of operation. That is, when the cover indicates ON, the switch must be in the ON condition.
3. Before the cover is installed, the flat ground joint surface must be thoroughly wiped clean of any dirt, grit, or other foreign substances and a light thin coating of lubricant placed on the joint to prevent possible corrosion.
The joint between the box and the cover has been made accurately to .0015" to prevent the passage of this accuracy is destroyed.
4. ALL cover screws must be installed with at least five full threads engaged and must be securely tightened. All cover openings must be closed with a suitable cover.
5. Gaskets must not be added to these devices. Only gaskets designed for and permanently installed in these devices may be used.
6. In accordance with the hazardous location information specifying Class and Group listing marked on the device, sealing fittings must be added that will comply with requirements in the latest issue of the Canadian Electrical Code or National Electrical Code and any special requirements that are stated in the instruction sheet with the enclosure.

MAINTENANCE

Before removing the cover from any such device for inspection or maintenance, the power supply circuit must be OFF.

WARNING: To prevent risk of explosion, hammers and prying tools must not be used to remove covers off enclosures. Damage to the explosion proof flat machined surfaces on cover and enclosure may result. Handle covers carefully. Do not place them on surfaces that might damage or scratch the flat machined surfaces.

Before replacing the cover, after it has once been removed, the flat ground joint surfaces must be cleaned as described in step 3 under installation.

WARNING: To prevent risk of explosion, replace devices if the flat machined surface is damaged, scratched, dented, or corroded. Field rework of flat machined surfaces is not possible.



The field wiring terminals on the switch units used for pushbutton or selector switch stations are marked. The $\frac{+}{-}$ and "O" indicate normally open contacts; and $\frac{\times}{-}$ and "C" indicate normally closed contacts of the switch. These switches are provided with binding screw terminals. For EDS/EDSC Series Toggle Switches: splice factory sealed wires to supply wires using suitable connectors.

1. Terminate incoming cables to the line and load side of switch (field installation only).
2. Strip the insulation on each conductor wire back 3/8".
3. Use a slotted or Phillips head screwdriver to loosen the field wiring terminal screws the required three (3) or four (4) turns.
4. Insert the bare wire conductor(s) on either side of the terminal screw(s), under the terminal wire clamp(s) and securely tighten the screw(s).
5. **NOTE:** Do not exceed 15 in.-lbs. of torque.
6. Test wiring for correctness with continuity checks and also for unwanted grounds with an insulation resistance tester.

WARNING

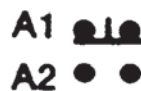
No conduit openings are to be added in the field. All unused conduit openings must be plugged and plugs must be a minimum of 1/8 inch thick and have a minimum of five (5) threads engagement (seven (7) threads for Group B applications). For EFS Enclosures with 1 inch hub(s), EDS 3-pole Snap Switches and EFD/EDS with "GB" suffix, all conduits must be sealed within 18 in. of the enclosure.

7. Assemble cover on box making certain there are no pinched wires.
8. Assemble cover to the device body with the cover screws making certain there are no pinched wires. Check the tightness of the cover screws to ensure that the cover assembly is securely fastened.
9. Pour Chico[®] Sealing Compound into EYS/EYD Series Sealing Fittings (where used) in accordance with the instructions with each sealing fitting used. (NOTE: Seals are not required for Class I, Division 2.)
10. Tighten cover bolts.

WARNING

Check for dirt, grit or other foreign material on the mating surfaces of the cover and the device body. Be certain that each surface is wiped completely clean before assembling. Surfaces must seat fully against each other to provide a proper explosion proof seal.

Three-Position,
Two-Circuit $\frac{+}{-}$



CAUTION: Use 12 AWG copper conductors only. Insert the bare wire conductor(s) under terminal clamp and securely tighten the screw(s). Note: Do not exceed 35 in.-lbs. of torque.



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 ELECTRICAL CODES.

TO AVOID ELECTRIC SHOCK:

- BE CERTAIN ELECTRICAL POWER IS OFF BEFORE AND DURING INSTALLATION AND MAINTENANCE.
- PRODUCT MUST BE CONNECTED TO A WIRING SYSTEM WITH AN EQUIPMENT-GROUNDING CONDUCTOR.

TO AVOID EXPLOSION:

- MAKE SURE THE SUPPLY VOLTAGE IS WITHIN THE VOLTAGE RATING. **NOTE: Product is Voltage Specific**
- ENSURE THE MARKED T RATING IS LESS THAN THE IGNITION TEMPERATURE OF THE HAZARDOUS ATMOSPHERE.
- DO NOT OPERATE IN AMBIENT TEMPERATURES ABOVE THOSE INDICATED ON THE PRODUCT NAMEPLATE.
- DO NOT OPERATE IF THE LENS, CORD, SEALS, HOUSING, RECEPTACLES, ETC. IS CRACKED OR DAMAGED. IF SO, DISCONTINUE USE AND CONTACT MANUFACTURER FOR REPLACEMENT PARTS.
- ALL FASTENERS SHOULD BE PROPERLY SEATED.

THESE INSTRUCTIONS MAY NOT COVER ALL DETAILS OR VARIATIONS OF THIS PRODUCT FOR YOUR EQUIPMENT OR INSTALLATION REQUIREMENTS. SHOULD FURTHER INFORMATION NOT COVERED BY THESE INSTRUCTIONS BE REQUIRED, PLEASE CONTACT LARSON ELECTRONICS BY EMAIL AT SALES@LARSONELECTRONICS.COM OR BY PHONE AT 1-800-369-6671 FOR FURTHER ASSISTANCE.

PLEASE VISIT LARSONELECTRONICS.COM FOR **WARRANTY** AND **RETURN** INFORMATION.

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