

ITS-Ex operation best practices

SPECIAL CONDITIONS OF SAFE USE

The following conditions shall be met for safe use of Series ITS-Ex connectors.

1. Male and female connectors are considered completely mated when the plug coupling nut is fully advanced on the receptacle, and all grub screws are secured.
2. Use Loctite 242 or equivalent (medium strength threadlocker) at threaded joints between the following: plug shell and cable adapter (backshell); receptacle shell and cable adapter (backshell); cable adapter (backshell) and certified cable gland.
3. Never demate connector halves when energized or remove protective safety covers when an explosive gas or dust atmosphere is present.
4. When a connector half fitted with contact pins is not connected to an associated plug or receptacle, it shall not be energized, per IEC 60079-0, clause 20.2.
5. Use protective safety covers whenever connector halves are not mated, being careful to always advance and secure the grub screws. Flame-proof safety caps are a part of the certification, and their use is required to maintain independent flameproof worthiness of the connector halves.
6. When a connector half fitted with socket contacts is not mated to an associated plug or receptacle, it shall not be re-energized unless it is fitted with an flameproof protective safety cover.
7. Perform connector backpotting step according to Glenair instruction manual D500500000 for In-Line and D500500002 for Panel Mount version. Backpotting, or use of an Ex d certified cable gland is required for all Hazardous Zone rated equipment and shall be performed carefully and properly, using the 2-part epoxy compound supplied with each connector.
8. Always use suitable cable with a minimum rated operating temperature of 90°C when using rated current according to N.E.C. It is the responsibility of the operator to ensure selected cable is suitable for use in each specific application, including resistance to aggressive substances and caustic chemicals.
9. Always use suitable cable with a minimum rated operating temperature of 100°C when using rated current extrapolated from VG95234. It is the responsibility of the operator to ensure selected cable is suitable for use in each specific application, including resistance to aggressive substances and caustic chemicals.
10. It is not possible to connect to a battery without using a circuit breaker.
11. Series ITS-Ex connectors do not incorporate an external earth/ground. It is the responsibility of the user or installer to ensure adequate earth/ground continuity IAW Glenair instruction manual D500500000 for In-Line and D500500002 for Panel Mount version.
12. Do not remove Ex marking label and its lanyard from connector body or protective safety cover. For flange-mount receptacles mounted to a panel, attach label lanyard directly to a flange mounting hole. Label is required for identification of connector in a certified Ex d application.
13. For multi-pin connectors, calculate current load and temperature rise based on ambient temperature plus the aggregate total of the individual contacts in the insert. MIL-W-5088 specifications shall be used as reference on the subject in as much as pertinent cable de-rating data is included.