EPZ 100/350 Ex

INSTALLATION INSTRUCTIONS

Corrosion resistant enclosure with hermetic environmental seal and flying leads for ease of connection.

LOCATION OF USE:

Explosive atmosphere, Zone 2,

Group II, Category 3

COMPLIANCE:

IEC 60079-0:2011	EN 60079-15:2010
IEC 60079-15:2010	EN 62561-3:2017
EN 60079-0:2012+A11:2013	

PURPOSE

The EPZ is an isolating spark gap designed to circumvent the problems associated with separate Earthing systems. Under normal operating conditions it appears as an open-circuit across the two disparate earth systems, but under transient lightning conditions, it rapidly “fires” to form a low impedance bond between these two systems, effectively tying them together electrically for the duration of the surge event. Once the transient has passed, the unit self-resets and the earth systems again become independent.

The EPZ links indirectly separate parts of an earth-protective systems in places such as metering site, insulating flange, insulating couplings, etc. The EPZ enclosure is complete sealed (thus weatherproof) and suitable for outdoor application (UV resistant). It is also resistant against various oils and chemicals and it is completely suitable for direct burial.

SAFETY INSTRUCTIONS

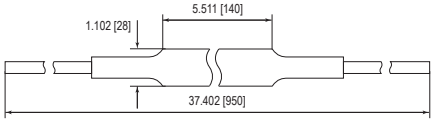
- Installation and/or replacement of the EPZ should only be carried out by a qualified person.
- The EPZ must be installed in compliance with all national regulations and conditions.
- The EPZ must be installed in compliance as shown in the present Installation instructions.
- The EPZ may be damaged if exposed to a lightning discharges in excess of rated values.
- Unauthorized tampering with or opening of the EPZ is not permitted and invalidates the warranty. Extending the connecting cable may impair the protective effect.
- Before installation, the EPZ must be verified that it shows no external damage or other faults.

TECHNICAL DATA

Electrical specifications	Rated DC Withstand Voltage	U_{WDC}	350 V
	Rated Impulse Sparkover Voltage	$U_{r\ imp}$	1000 V
	Maximum Discharge Current (8/20 µs)	I_{max}	100 kA
	Impulse Discharge Current	I_{imp}	25 kA
	Residual Voltage at 5 kA (8/20 µs)	U_{res}	1.6 kV
	ISG Classification		1 L
	Capacitance at 1 MHz	C	< 10 pf
Mechanical & Environmental specifications	Temperature Range	Ta	-40 °F to +158 °F [-40 °C to +70 °C]
	Nominal Outer Diameter		1.102" [28 mm]
	Nominal Length		5.511" [140 mm]
	Length With Cables (approx)		37.402" [950 mm]
	Cross Sectional Area		6 AWG [16 mm²]
	Number of Conductors		≥ 465/0.21
	Insulation		Double Insulated
	Enviromental Protection		UV Stabilized, Flame Retardant
	Resistant		Acids, Solvents and Oils
	Connection		Suitable for Screw or Lug Termination
	Degree of Protection		IP 67
	Housing Material		Metal Tube
	Location		Indoor/Outdoor
Specifications for Use	Environmental		Local heating by pipelines and other hot surfaces in vicinity of the installation of the product must be considered by the installer to ensure that specified maximum ambient temperature is not exceeded.
	Wiring		Connection of the interal cables must be in accordance with the applicable requirement of IEC 60079-0 and IEC 60079-15 for field wiring connections.
	Safety		EPZ has an external non-metallic heat shrink sleeve which may provide a potential electrostatic charging hazard. See installation instructions for further information.

PRODUCT INSTALLATION

DIMENSIONS



MAINTENCE

The EPZ does not need maintenance. However, test in accordance with national regulation and periodic inspections need to be carried out on the installed EPZ. It is highly recommended to carry out the test on the EPZ periodically (if national regulation does not specify otherwise, every two years) and when a lightning strikes in the installation site or in a vicinity.

CLEANING INSTRUCTIONS

The EPZ Equi-potential clamp should only be cleaned with a damp cloth.

INSTALLATION INSTRUCTIONS

- When installing the EPZ for protection of the electrical isolating points (insulating flanges, etc.), the EPZ has to be bridged conductively at the electrical isolating points by insulated copper cable with a suitable cross-section for duration of the installation work.
- EPZ can be installed vertically as well as horizontally. When mounting the EPZ, the shortest possible cable length should be used since long cables increase the danger of inductive voltages putting unnecessary stress on the isolation. When installing the EPZ, the metal brackets with a suitable cross-section (e.g. cooper ≤ 16 mm2) may be used as well.
- All connections must have good electrical conductivity. Therefore, all the connection contacts must have clear surface without lacquer coatings or other kinds of layers. All connections have to be secured against self-loosening by means of spring washers. The connecting parts have to be protected against corrosion.
- The installation of the EPZ must not reduce the insulating capacity of the insulating part. When installing the EPZ, a need of electrical isolating point has to be checked, in accordance to the installation site. Moreover, all bare metal connecting parts have to be protected against unintended bridging as well.