



TECHNICAL SPECIFICATIONS:

Model:	PEC150
Electrical Characteristics:	
Impulse spark-over voltage (1,2/50)	< 1400 V
Power frequency withstand voltage	320 Vac
Impulse rated current Iimp (10/350)	50 kA
Maximum discharge current, 1 impulse Imax (8/20)	150 kA
Capacitance	< 10 pf
Isolating resistance (@ 250 Vdc)	> 3 GΩ
Dimensions:	
Nom. outer diameter	43 mm (1.7 inches)
Nom. length	100 mm (3,9 inches)
Length with cables	approx. 1 m
Cable:	
Cross sectional area	16 mm ² (#5 AWG)
Length	450 mm (17 inches) approx.
Number of conductors	≥ 462/0.21
Insulation	Double insulated
Environmental protection	UV stabilised, flame retardant
Resistant	Acids, solvents and oils
Connection	Suitable for screw or lug termination
Physicals:	
Housing	IP 67
Application	Below / above grade
Weight	0.5 kg 1.1 lb approx.
Operating temperature	-30 °C ... +70 °C
Approvals:	
ISG Classification EN 50164-3:2004	N (normal duty)

PURPOSE:

In communications and computer installations it is not uncommon to install separate ground systems for lightning, mains power, computer (quiet ground), and communications (for security, and tempest requirements). Although this approach may be desirable for certain operating reasons, when lightning or other transient voltages occur, differences in ground potentials between the ground electrodes are inevitable and equipment damage can result. The Potential Equalization Clamp (PEC) is an isolation spark gap that prevents ground potential differences by operating under transient conditions to effectively clamp the grounds together. Normally the PEC presents an effective open circuit. Once the ground potential difference exceeds the breakdown voltage of the PEC, the circuit immediately closes and the ground potentials are equalized. The PEC is fully resettable and has a life of over ten thousand operations.

Many buried pipelines are protected from corrosion by cathodic protection systems. To maintain the insulation integrity of the pipe at metering and telemetry stations, insulating joints are inserted into the pipe and those sections between insulating joints are grounded at the station. With long lengths of pipelines, induced voltages in the pipe caused by local lightning or power line faults activity can be in the order of tens of kilovolts. The result is that insulated joints failure is almost inevitable, with flange type insulated joints particularly susceptible.

To protect against insulated joint break-down, the PEC can be connected directly across the joint. In its inactive state the PEC presents an effective open circuit across the joint. Should the insulated joint voltage start to rise due to transients, the PEC will conduct and safely pass the transient current to ground, limiting the voltage stress across the joint. After conduction the PEC will automatically reset to its inactive state.

INSTALLATION:

- Installation and/or replacement of a PEC should only be carried out by qualified personnel
- The product must be installed in compliance with all national regulations and conditions
- The PEC may be damaged if exposed to lightning discharges in excess of rated values
- Unauthorized tampering or opening of the PEC is not permitted and invalidates the warranty

MARKINGS: