PRODUCT DATA SHEET

Surge Protective devices

Isolated Spark Gaps

Code: 6601101-70

Description: Isolation spark gap ISG Ex, code 6601101-70

Description

The Isolating Spark Gaps ISGs explosion proof type are intended to provide indirectly equipotential bond in structures which are installed in explosive environments where also direct bond is not permissible for functional reasons. They are installed between the two conductive parts that need to be bonded on different earthing systems and in the event that the potential difference between the ISGs terminals exceeds the spark over voltage of it, the ISG operates causing the equalisation of the earth potentials without allowing any arc or spark to be generated out of its chamber even at after heavy discharges. After the equalisation the ISG will return to normal position. They have applications mainly in the following cases:

- in earthing systems of oil refineries;
- in earthing systems of tanks and pipes containing explosive fuels;
- in earthing systems of natural gas applications;
- in installations with cathodic protection and stray current systems;
- in bypass bonding of insulated flanges and insulated couplings of pipelines.

Technical characteristics

Protection type EN / IEC 62561-3	N
DC sparkover voltage at 100V/s	100 V ± 20%
AC sparkover voltage at 50Hz	70 V ± 20%
Typical impulse sparkover voltage at 1kV/μs	650V
Max impulse sparkover voltage at 1kV/μs	950V
Lightning current discharge 10/350μs, Iimp	3x75 kA +, (Class N)
DC follow current after the Iimp	150 A / 0,5 s (Not for Ex use)
Surge current discharge 8/20μs	10x100 kA
High energy surge current discharge 10/45μs	20x 60 kA

AC current discharge 50Hz, t=1s	5x100 Arms
AC current discharge 50Hz, t=0,5s	1x200 Arms
AC current discharge 50Hz, t=0,25s	1x4000 Arms
Follow current extinguish capability	At 70 V < 20 Arms
Insulation resistance at 100V DC	1 GΩ
Capacitance at 1kHz	20 pF
Dimensions (Diameter / length)	50 x 155 mm
Mounding connections	M10 Thread
Tightening torque	17 Nm
Protection level of housing	IP67
Operating temperature	-20 oC ÷ +80 oC
Relative humidity	10% ÷ 95%
Housing material	Metal SS, Ceramic, EPOXY
ATEX protection class	II 2 G Ex mb IIC T4 Gb
End of life failure mode	Short circuit in fail safe mode
Installation only by qualified electrician	IEC 60417–6182
ELEMKO management systems	ISO 9001, ISO 14001, ISO 45001