

## PRODUCT DATA SHEET

### ISOLATION SPARK GAPS (ISGs)

**Code: 66 01 102**
**ed.03/2021**
**Brand Name: ISG N**
**Application: Isolation spark gap**

#### Description

The Isolating Spark Gaps ISGs are intended to provide indirectly equipotential bond between earthing systems or metalwork where direct bond is not permissible for functional reasons. They are installed between the parts to be indirectly bonded, or in case of external conductive parts connected to the structure, they are installed at the entry point in the structure. If the voltage between the parts exceeds the spark over voltage (e.g. lightning strike) of the ISG, the ISG operates causing the equalisation of the earth potentials. After the equalisation the ISG will return to normal position. They have applications mainly in the following cases:

- in earthing systems of telecommunication systems (under conditions);
- auxiliary earth electrodes of voltage operated earth fault circuit breakers;
- rail earth electrode for AC and DC railways;
- measuring earth electrodes for laboratories;
- in installations with cathodic protection and stray current systems;
- in bypass bonding of insulated flanges and insulated couplings of pipelines.



#### Technical characteristics

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, I <sub>imp</sub>	3x75 kA (Class N)
DC follow current after the I <sub>imp</sub>	150 A / 0,5 s
Surge current discharge 8/20μs	10x100 kA
High energy surge current discharge 10/45μs	20x 60 kA
AC current discharge 50Hz, t=1s	5x100 A <sub>rms</sub>
AC current discharge 50Hz, t=0,5s	1x200 A <sub>rms</sub>
AC current discharge 50Hz, t=0,25s	1x4000 A <sub>rms</sub>
Follow current extinguish capability	At 70 V < 20 A <sub>rms</sub>
Insulation resistance at 100V DC	1 GΩ
Capacitance at 1kHz	6 pF
Dimensions (Diameter / length)	25 x 88 mm
Moulding connections	M8 Thread
Tightening torque	13 Nm
Relative humidity	10% ÷ 95%
Operating temperature range	-40°C ÷ +80°C
Housing material	Insulated ceramic
Housing protection category	IP 67
Standard	EN / IEC 62561-3
Installation only by qualified electrician	IEC 60417 – 6182

#### Testing as per IEC EN 62561

The component has successfully passed the testing requirements of standard IEC EN 62561-3 "Lightning protection system components (LPSC) – Part 3 : Requirements for isolating spark gaps (ISG)".

Test report **No 31295** by accredited laboratory as per ISO 17025

#### Manufacturing Quality Control

Manufacturing quality control according standard ISO 9001

**Unit: piece / Package: 1 piece**

We reserve the right to introduce changes in the component due to technical evolution.