ISOLATING SPARK GAP

CELEBRATED ENTERPRISE IN CATHODIC PROTECTION

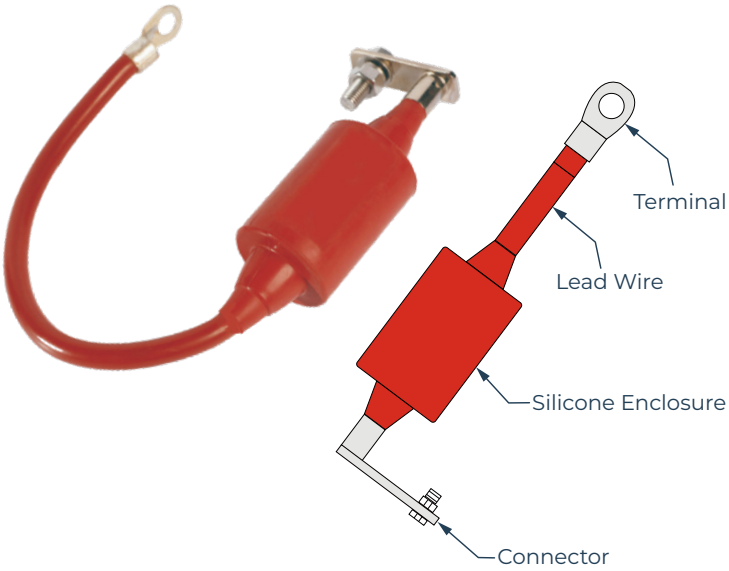
JENNINGS ANODES

ISOLATING SPARK GAP

DATA SHEET

The isolating spark gap (ISG) is an essential electrical safety device widely used in industries like chemicals, petrochemicals, and natural gas. Its main function is to provide a controlled electrical discharge path while maintaining isolation between system parts. When the electrical potential within the system rises to a dangerous level, the ISG quickly directs excess charges to the ground, preventing electrical faults that could lead to fires or explosions.

Standard ISGs are designed for typical applications, while special, hermetically sealed ISGs in the "Ex" version are specifically engineered for use in potentially explosive atmospheres. These specialized ISGs ensure electrical safety and reliability in harsh environments.



APPLICATIONS

Isolating spark gaps for aboveground and underground installation are used to indirectly earth and connect functionally isolated parts of installations under lightning conditions.

- For indirect connection of an overhead line roof pole to the external lightning protection system
- For indirect connection / earthing of functionally isolated parts of installations under lightning conditions
- For bridging insulating joints, insulating flanges, etc. in cathodically protected pipe sections
- For bridging buried insulating joints in cathodically protected pipe sections of pipelines
- For protecting insulating joints in potentially explosive atmospheres
- For safe installation in Ex zone 1 (gas) or 21 (dust)
- For use in either indoor or outdoor applications

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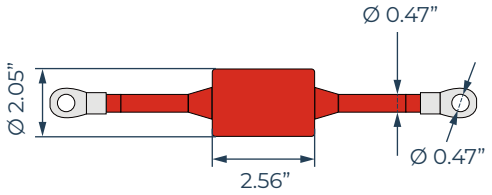
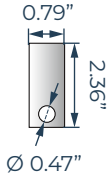
SPECIFICATIONS





Technical Measurement	Performance
Lightning Impulse Current (10/350 µs)	50 kA
Nominal Discharge Current (8/20 µs)	100 kA
Rated Discharge Current	≥ 100 A (0.5 s)
AC Spark-over Voltage (50 Hz)	≤ 1 kV
Rated Impulse Spark-over Voltage (1.2/50 µs)	≤ 2.2 kV
Rated Power Frequency Withstand Voltage (50/60 Hz)	250 V
Insulation Resistance	≥ 50 MΩ
Response Time	≤ 100 ns
Ingress Protection	IP68
Explosion Protection	Ex II 3G
Working Temperature	-40 °C ~ 70 °C

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