Spark Gaps for equipotentiality

P100, SGP

These spark gaps are designed to protect metallic elements, like antennas, poles, pipes, roofing equipment...which are not connected to earth for operating reason, against the risk of flashover during a lightning strike on the installation.
When a large or exposed metallic element is not connected, for operating reasons, to the earthing system, it is better, in order to avoid destructive flashovers, to connect between the element and the grounded structure (or lightning conductor) a spark gap, which allows a punctual and a brief connection to earth during the lightning strike.
In stand-by situation, the spark gap insulates the element from the earth. During the lightning strike, the spark gap fires to create equipotentiality and to avoid destructive flashovers.

Several versions are available :

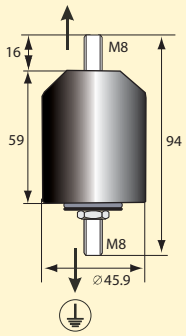
P100S - P100C
Specific version of the high energy gas tube P100, featured with isolated sleeve for outdoor application and connection cables (P100S-350) or (P100C-350) for easy wiring.
Very heavy discharge current : Imax 150 kA (@ 8/20µs) and Iimp 60 kA (@ 10/350 µs).

SGP
Air spark gap with high sparkover voltage (1000 and 2500 V) and heavy discharge current. Connection on threaded pin.

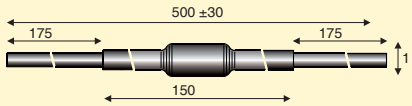
- **Spark gaps for equipotentiality**
- **Outdoor or indoor application**
- **Discharge currents up to 150 kA**

Dimensions (in mm)

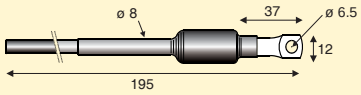
SGP



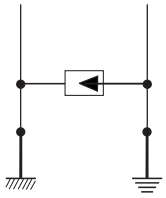
P100S



P100C



Electrical diagram



Characteristics

CITEL part number	P100	SGP
Technology	Gas tube	Air spark gap
DC sparkover	280-420 V	1000-1500 V (SGP1) 2500-4000 V (SGP2.5)
Impulse sparkover (1 kV/µs)	< 1 kV	< 2000 V (SGP1) < 5000 V (SGP2.5)
Insulation resistance	> 1 GOhm	> 1 GOhm
Max. discharge current (8/20 µs)	150 kA	100 kA
Max. lightning current (10/350 µs)	60 kA	30 kA
Dimensions	see drawing	see drawing
Connection	wires (P100S) wire terminal (P100C)	threaded rod M8
Outdoor application	Yes	Yes

CITEL-2CP - Tel. +33-1 41 23 50 23 - Fax +33-1 41 23 50 09 - Email : issy@citel2cp.com - Web : http://www.citel2cp.com