



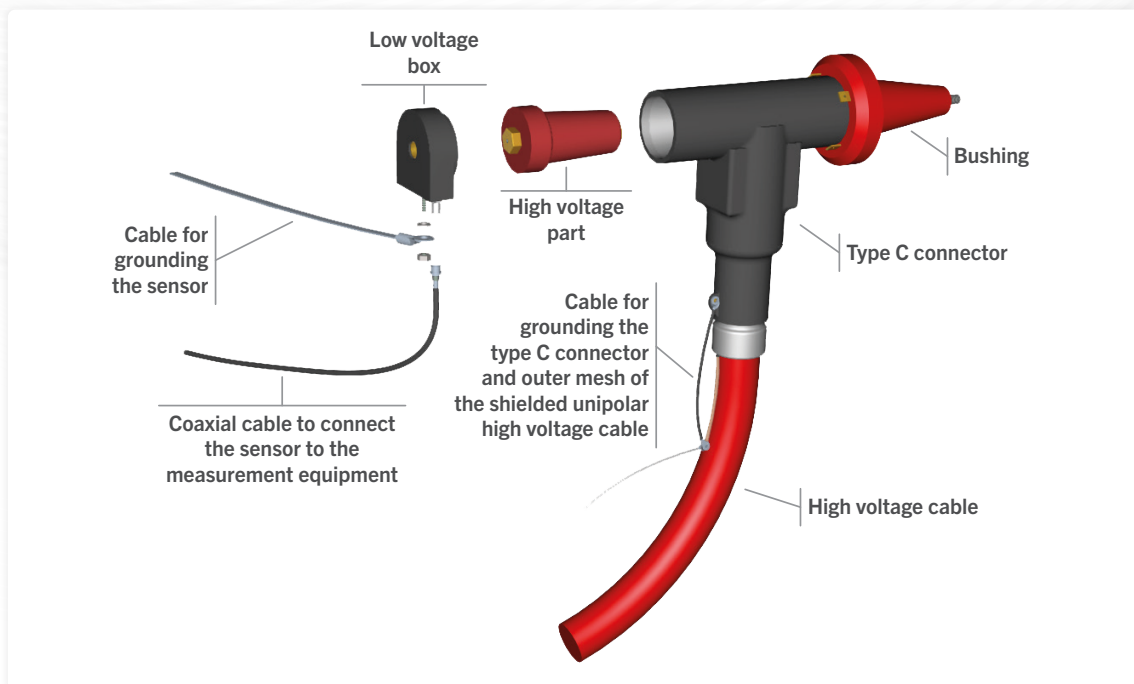
Voltage sensor for gas-insulated switchgear

INGEPAC™ SR GR is a voltage sensor based on **resistive dividers** for **gas-insulated switchgear** up to 20 kV. It consists of one part designed to be inserted into a type C symmetrical T connector, which contains a high-voltage resistor, and a low-voltage part for connection to the measurement equipment using a **BNC connector** and grounding.

The sensor has a $20000/\sqrt{3} : 2/\sqrt{3}$ transformation ratio and complies with the requirements defined in the **IEC 61869-1:2007**, **IEC 61869-3:2011** e **IEC 60044-7:2000** standards. Every unit is individually tested to ensure its accuracy.

Applications

- Protection
- Medium-voltage line supervision
- Metering and power quality



TYPE TESTS

Accuracy in module and argument	±1% / ±1° at -10 °C, +20 °C and +60 °C at 50 Hz ±1.5% / ±1.5° at -10 °C, +20 °C and +60 °C at 60 Hz
Industrial frequency withstand voltage	50 kV
Lightning impulse withstand voltage	125 kV
Partial discharges (UNE-EN 61869-1)	<50 pC for 1,2 · 24 kV <20 pC for 1,2 · 24 kV/√3
Secondary side overvoltage protection	15 A @ 1 s withstand current

ROUTINE TESTS

Accuracy in module and argument	±1% / ±1° at ambient temperature (20 °C ±5 °C)
Partial discharges (UNE-EN 61869-1)	<50 pC for 1,2 · 24 kV <20 pC for 1,2 · 24 kV/√3
Industrial frequency withstand voltage	50 kV



MAIN FEATURES

Accuracy in module: ±1%, for the defined temperature range
 Accuracy in argument: ±1°, for the defined temperature range
 Climatic conditions: -10 °C to 60 °C
 Transformation ratio: 20000/√3 : 2/√3
 Connection type: phase-ground
 Lifetime: 40 years

ELECTRICAL FEATURES

Possible primary voltages assigned: 11 kV, 13.2 kV, 15 kV, 20 kV
 Grid frequency: 50 Hz
 Isolation voltage (Um): 24 kV
 Overvoltage protection: gas discharger
 Power consumed: <3 W
 Total length: 147 ±2 mm

MECHANICAL FEATURES

Protection level in primary side: IP65
 Primary side material: resin
 Low voltage connector: BNC type
 Grounding terminal: stud bolt and M6 screw
 Connection format with medium voltage:

- Compatible with T terminal and DIN C type connectable bushing (Cenelec HD 629.1 S1 standard)
- M16 primary terminal connection and length less than 31 mm

 HV block maximum tightening torque: 60 Nm
 Maximum tightening torque between detachable parts: 10 Nm
 Grounding connection terminal tightening torque: 5.5 Nm
 Weight: 900 ±20 g
 Screw material: A2 steel, hardness 70