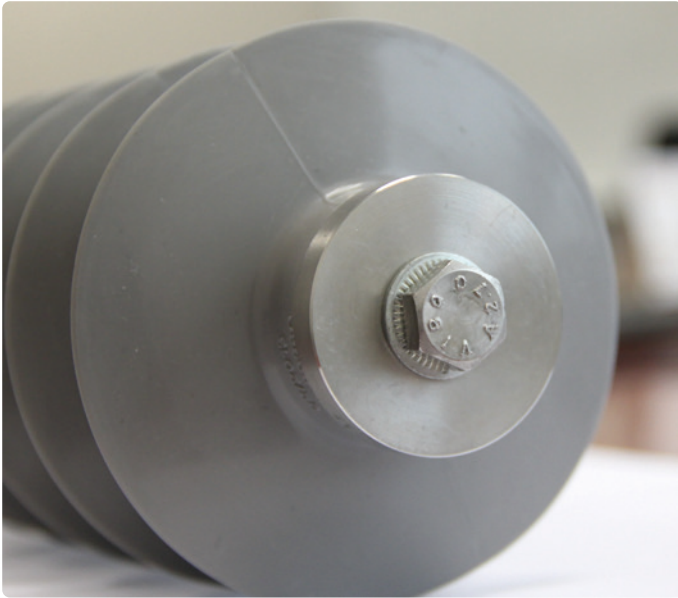


INGEPAC™**SR AR**

Voltage sensor for air and pole-mounted switchgear



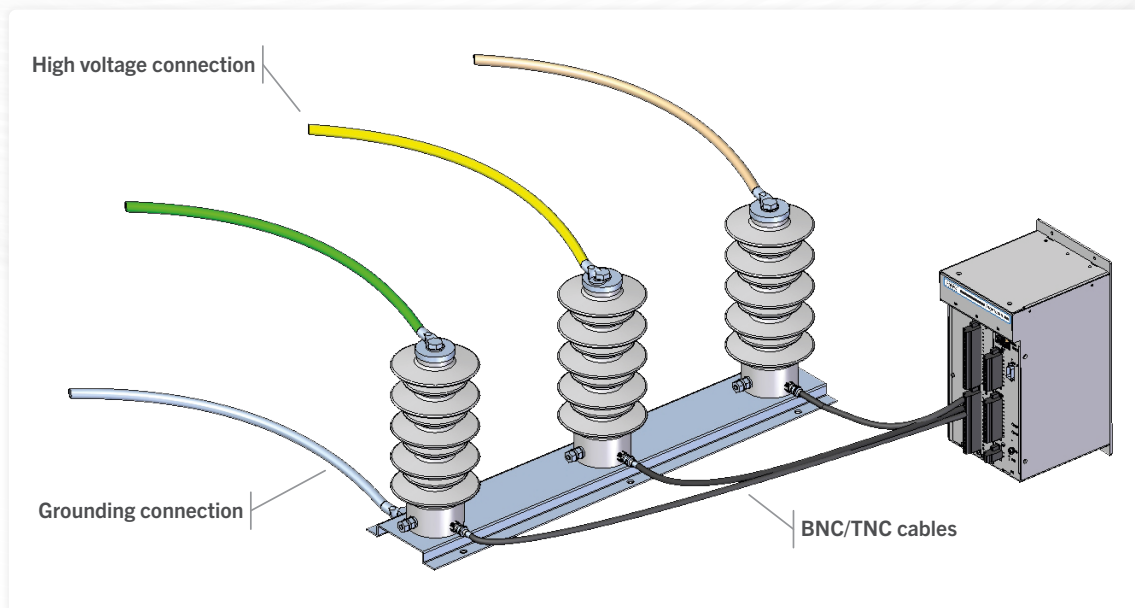
Voltage sensor for air and pole-mounted switchgear

INGEPAC™ SR AR is a voltage sensor based on resistive dividers for medium-voltage application in air-isolated and pole-mounted switchgear up to 24 kV. Connection to the metering equipment is made using a BNC or TNC connector and grounding.

The sensor has a **10,000:1** transformation ratio and complies with the requirements defined in the **IEC 61869-1:2009** and **IEC 61869-3:2011** 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 | $\pm 1\%$ / $\pm 1^\circ$ at -10°C , $+20^\circ\text{C}$ and $+60^\circ\text{C}$ |
| 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/ $\sqrt{3}$ |
| Secondary side overvoltage protection | 15 A @ 1 s withstand current |

ROUTINE TESTS

| | |
|--|---|
| Accuracy in module and argument | $\pm 1\%$ / $\pm 1^\circ$ at ambient temperature ($20^\circ\text{C} \pm 5^\circ\text{C}$) |
| Partial discharges (UNE-EN 61869-1) | <50 pC for 1,2 · 24 kV <20 pC for 1,2 · 24 kV/ $\sqrt{3}$ |
| Industrial frequency withstand voltage | 50 kV |



MAIN FEATURES

Accuracy in module: $\pm 1\%$, for the defined temperature range
 Accuracy in argument: $\pm 1^\circ$, for the defined temperature range
 Service conditions: -10°C to 60°C
 Transformation ratio: 10,000:1
 Connection type: phase-ground
 Lifetime: 40 years

ELECTRICAL FEATURES

Possible primary voltages assigned: 11 kV, 13.2 kV, 15 kV, 20 kV
 Grid frequency: 50/60 Hz
 Isolation voltage (U_m): 24 kV
 Overvoltage protection: gas discharger
 Power consumed: <3 W
 Total length: 250 ± 1 mm
 Leakage line: 625 ± 1 mm
 Leakage line / arc distance: <3

MECHANICAL FEATURES

Protection level in primary side: IP65
 Primary side material: silicone
 Low voltage connector: BNC or TNC type
 Grounding terminal: stud bolt and M8 screw
 Connection format with medium voltage: M10 stud bolt (maximum length: 30 mm)
 Fixing: M12 screw (maximum length: 25 mm)
 Weight: 1480 ± 30 g
 Maximum diameter: 110 mm
 Screw material: A2 steel, hardness 70