

# ROGOWSKI

# CURRENT METER Rogowski Sensor



### **ROGOWSKI**

#### **Description**

The Rogowski sensor is a current meter that, by not having ferromagnetic material in its core, is characterized by its non-saturation capacity, which is one of its main advantages over traditional current transformers (CTs). Other characteristics presented by this sensor include: flexible material; good insulation; compact size; high linearity; high operating frequency band; applications in wide ranges of current levels; good signal-to-noise ratio.

#### **Benefits:**

- Suitable for measurement in combination with portable devices;
- Available in various sizes, being adaptable to the project;
- Extremely reliable solution for current measurement and can be used in various cases where the traditional current transducer is not the ideal solution;
- Shielded against the influence of external magnetic fields, therefore, it ensures stable measurement from low currents to hundreds of kA;
- · Not damaged by large overloads.

#### **Operation**

Rogowski coils utilize the principle of electromotive force induction based on the variation of magnetic flux generated by the flow of current in a circuit. These devices have a hollow core and encircle the conductors through which the current passes. The passage of current and consequent variation of magnetic flux induces a voltage in the Rogowski coil, which transfers this voltage through its conductors as a reading and measurement element.

The main advantage is that, by having a hollow core, this type of sensor does not saturate and its measurement is non-intrusive, meaning it can be installed in established circuits. However, the downside is that this device only works in AC circuits as it requires the variation of magnetic flux to operate.





## **Technical Specifications**

Reference rated current	1000 A	5000 A
Cable lenght	2 m	2 m
Gauge	12 mm	12 mm
Window size	100 mm	200 mm
Measurement accuracy	± 0,5%	± 0,5%
Phase error	± 1%	± 1%
Transformation Ratio	333 mV/kA @ 60Hz	333 mV/kA @ 60Hz

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