

# ACCULine ROG-O

Customisable Rogowski sensor

from 20 A to 10 000 A



## The solution for

- > Energy
- > Infrastructure & Transport
- > Industry

## Strong points

- > Easy to install
- > Optimum compactness
- > Wide range of measurement
- > Secure closure
- > Infinitely customisable
- > Insensitive to position

## Conformity to standards

- > IEC 61869-10
- > UL 61010
- > UL 2808

## Function

ROG-O sensors are designed to measure vast ranges of current while being open and flexible, which facilitates their integration into existing applications. The ROG-O range offers the possibility of integrating the signal via various modules to eliminate the phase shift between the primary and secondary current, which is introduced by the principle of any Rogowski sensor.

## Advantages

### Easy to install

Sensor installation is simplified thanks to their flexibility and the opening of the loop, which speeds things up and facilitates installation.

### Optimum compactness

The ROG-O range offers easy installation even in hard-to-reach and restrictive environments, thanks to its flexibility, tailored sizing and compact design.

### Wide range of measurement

The ROG-O range offers a very wide measurement range, capable of covering currents from 20 to 10,000 A, all with a single sensor diameter.

### Secure closure

The secure locking function of the junction frame called "safe lock" ensures reliable mounting, even under mechanical stress.

### Infinitely customisable

The technical specifications are fully customisable, enabling you to adjust every parameter, from secondary circuit voltage to signal processing.

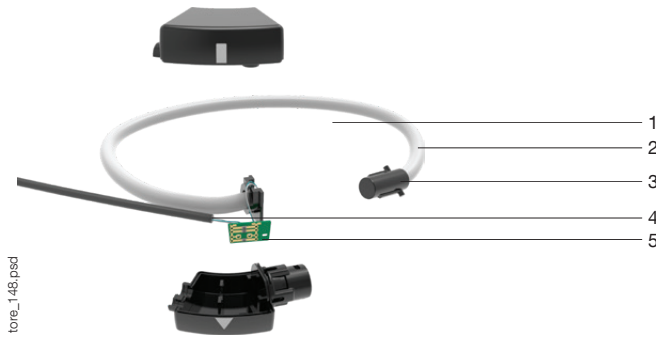
### Insensitive to position

accurate measurements regardless of conductor location, thanks to full shielding across the entire sensor.

## The Rogowski sensors are adaptable to all your requirements

Socomec's ROG-O range can meet all your requirements thanks to its high capacity for customisation. From rated current to loop size, ROG-Os can be customised to perfectly align with your use case and requirements.

## List of customisable characteristics



1. Product type:
  - Flexible and opening
2. Window size:
  - 40...1000 mm
3. Accuracy class
  - 1
4. Secondary signal:
  - 100...333 mV
  - 1 A Output type:
5. Signal integration:
  - Pre-wired
  - RJ12
  - Ferrule
  - Integrator on PCB
  - External integrator
  - No integrator

## Selection guide

Need to customise your Rogowski sensor? Start by selecting the desired rated current. Socomec also offers ROG-O sensors with (internal/external) signal integration or without integrator. The purpose of the integrator is to eliminate the phase shift between the primary and secondary signals. The table below will guide you in your selection.

Parameters	ROG-O sensor	
Rated current range (kA)	0.002...10	
Window size (mm)	40...1000	
Length of connection cable (m)	3...15	
Standard	IEC 61869-10 UL 61010 UL 2808	
Accuracy class	Class 1	
Secondary signal	Without integrator 40...150 mV/kA 50 Hz 333 mV/kA 50 Hz Others	With integrator 333 Hz to 50 Hz Others
Integration range (A)	(empty)	200...5000
Frequency (Hz)	50...60	
Output type	Tin-plated cable Ferrules RJ12	
Phase-neutral voltage	600 V	
Measurement category	1000 V CAT III, 600 V CAT IV	
Rated withstand voltage	3.6 kV	
IP Rating	IP67, IP68	
Operating altitude	<2000 m	
Operating temperature	-30 ... +80°C	
Storage temperature	-40 ... +80°C	

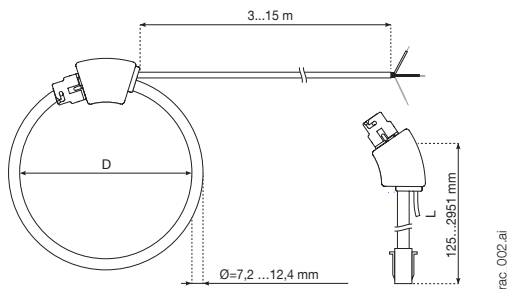
## Reference

The ACCULine range offers the ability to adjust all parameters to create the perfect current sensor for your requirements. Do not hesitate to ask for advice or to obtain a quote by contacting your local Socomec dealer.

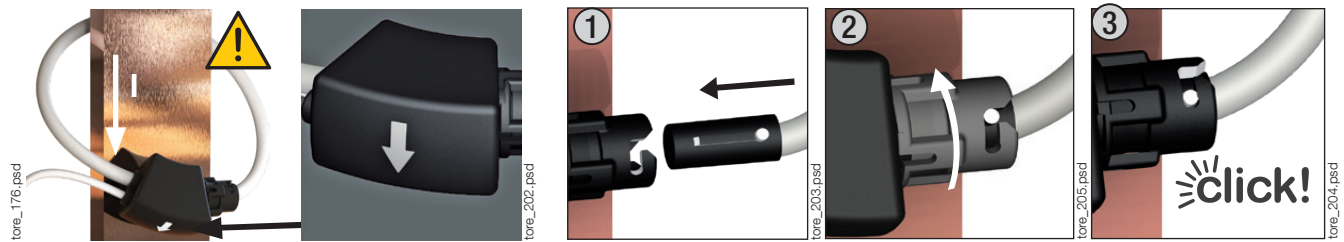
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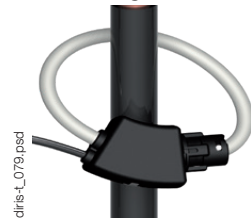
## Dimensions (mm)



## Mounting



### Bar mounting

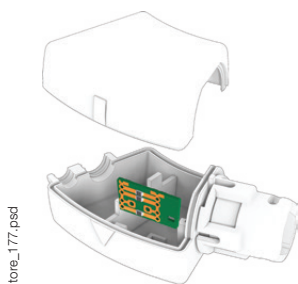


### Cable mounting

## Compatible accessories

To eliminate the phase shift phenomenon naturally induced between the primary and secondary by Rogowski coil technology, Socomec offers four distinct integration modules. Namely the integrator included in the junction box, the RAC-1A, the RPS50 and the FCS3000. Each of these modules provides integration and offers additional functionalities to meet your requirements

Model	Power supply	Rating available			Output signal	
		Option 1	Option 2	Option 3	Option 4	Option 5
Integrated integrator	4-26 VDC	0.2-0.25-0.6-1-2-5 kA	>5 kA, contact us	-	333 mV	contact us
RAC-1A	80...265 VAC	0.1-0.5-1-5 kA	-	-	1 A	
RPS50	80...265 VAC	0.5-2.5-10 kA	2.5-10-50 kA	10-50-250 kA	1V 3V	0...10 VDC
FCA3000	80...265 VAC	3 kA	10 kA	-	0...20 mA 4...20 mA	0...10 VDC



### Integrator included in the junction box

The PCB integrator is an exceptionally compact solution, that can be integrated into the ROG-O junction box or along the output signal cable. There is no limitation regarding the maximum primary rated current for integration.

### Connected device compatibility:

- Meters and power monitoring devices with voltage inputs.

### Strong points:

- Wide range of integrable current, according to your requirements
- Extremely compact integrator
- IP 68 via integration of the PCB into the junction box.



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### RAC-1A integrator

The RAC-1A integrator ensures absolute compatibility between ROG-Os and measurement devices with 1A inputs. It integrates the signal from the sensors and delivers a current of 1 A at its secondary.

#### Connected device compatibility:

- Meters, power monitoring devices and regulators with 1 A current inputs.

#### Strong points:

- Four scales of integration: coverage range from 100 to 5000A so you can choose the integration closest to your requirements
- Modular format
- Easy installation: can be mounted on DIN rail.



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### RPS50 integrator

In addition to integration, several output options are available:

- Voltage: 1 VAC, 3 VAC or 10 VDC
- Current: 0...20 mA, or 4...20 mA

Its flexibility makes it compatible with a wide range of products.

#### Connected device compatibility:

- Meters and power monitoring devices with voltage inputs
- Programmable logic controllers (PLCs).

#### Key points

- Three integration ranges available:
  - Small scale: 0.5 - 2.5 - 2.5 kA
  - Medium scale: 2.5 - 10 - 50 kA
  - Large scale: 10 - 50 - 250 kA
- Compact design: Its compact modular design makes it ideal for installation with restricted space
- Easy integration into DIN rail.



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### FCA3000 integrator

The FCA3000 can integrate up to three Rogowski sensors at the same time. It provides three distinct output signals and an additional output that combines the three signals. This design offers space and performance benefits in any installation. Several output options are available:

- Voltage: 0...10 VDC
- Current: 0...20 mA, or 4...20 mA

#### Compatibility:

- Counters and power monitoring devices with voltage inputs
- Programmable logic controllers (PLCs).

#### Key points

- Output flexibility: choice between voltage or current output
- Response time adjustable between 50...150 ms to facilitate association between your devices and the FCA3000
- Three independent outputs and a summing output.
- Modular: its 9-module design integrates easily onto a DIN rail.