

RCSL & RCLL Sensors

Flexible rope style AC current sensors - 333 mV
200 A to 5000 A



RCSL & RCLL
333 mV

Function

The RCSL (small) and RCLL (large) series flexible Rogowski coil current sensors are ideal for applications where regular current transformers will not fit. The flexible coil is designed to fit around multiple conductors, irregular bundles or busbars where rigid CTs will not fit. Five diameters and rated currents from 200 A to 5000 A allow the RCSL and RCLL to be used anywhere from residential monitoring to high-current three-phase industrial or commercial applications. The RCSL and RCLL has an internal integrator signal conditioning circuit, eliminating the need for an external circuit. They provide a 333 mV output signal, compatible with DIRIS A-100/A-200 (333 mV models) and WattNode power meters or any third party meter accepting 333 mV current sensors. The ROG series is cULus 2808 listed, certified by Underwriters Laboratory (UL).

Advantages

Safe installation

- The open-ended design facilitates installation without disconnecting electrical wires inside the panel.
- Built-in burden resistor provides 333 mV voltage output at the rated full scale current, eliminating the need for shunting blocks.

Safe locking mechanism

The locking mechanism prevents the loop from opening accidentally, guaranteeing continuous functioning and accuracy even under harsh conditions.

Flexible installation

The rope-style concept provide significant installation flexibility for cable bundles, busbars and irregularly shaped conductors, where conventional rectangular or rigid CTs will not fit.

Accurate

The RCSL and RCLL deliver excellent linearity and low phase-angle error, typically $\pm 1.0\%$ from 3% to 120% of rated current, essential for accurate power and energy measurements.

The solution for

- > Buildings
- > Industry
- > Datacenter
- > Renewables



The solution for

- > Safe installation
- > Flexible installation
- > Accurate
- > Safe locking mechanism

Conformity to

- > UL 2808, CAN/CSA C22.2 No. 61010-1-12, File E363660



- > IEC 61869-10



Associated products

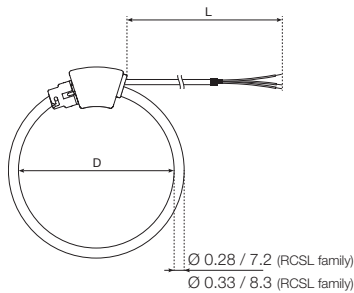
- > DIRIS A-100 / A-200 (333 mV models)
- > Wattnode



RCSL & RCLL Sensors

Flexible rope style AC current sensors - 333 mV
200 A to 5000 A

Dimensions (in / mm)



Model	D (in/mm)	Loop length (in/mm)	L (ft/m)
RCSL-1.5	1.57 / 40	4.96 / 126	8 / 2.4
RCSL-3.1	3.15 / 80	9.88 / 251	8 / 2.4
RCLL-4.7	4.72 / 120	14.84 / 377	8 / 2.4
RCLL-7.8	7.87 / 200	24.72 / 628	8 / 2.4
RCLL-11.8	11.81 / 300	37.09 / 942	8 / 2.4

Technical Characteristics

Ideal for busbars or higher currents	Rogowski 333 mV current sensors								
	RCSL-1.5		RCSL-3.1		RCLL-4.7		RCLL-7.8		RCLL-11.8
Primary rating (A)	200	250	600	1000	1000	2000	1000	2000	5000
Secondary signal	333 mV								
Output lead wires	4 x 24 AWG conductors (White, Black, Red, Blue), twisted, 600 V, shielded								
Power supply	External power supply required 3.5 VDC to 13.5 VDC, 6 mA typical, 20 mA minimum Red = (+), Blue = (-)								
Lead length (ft / m)	8 / 2.4								
Accuracy	+/- 1 % from 3% to 120% of rated current (*)								
Phase orientation	Arrow points towards Source								
Voltage rating	600 VAC								
Coil Jacket Material	Thermoplastic vulcanizate (TPV), UL 94 V-0 flame rating								
UL compliance	ANSI/CAN/UL 2808, CSA C22.2 NO. 61010-1-12								
Operating temperature	-40 ... +167°F / -40 ... +75°C						-40 ... +140°F / -40 ... +60°C		
Operating altitude	≤ 6560 ft / 2000 m								
Operating humidity	95% RH without condensation								

(*) Following best practices for positional sensitivity and external signal integration.

References

Product Model	Primary rating (A)	Window (in / mm)	Product Model Number	Reference
RCSL	200	Ø 1.57 / 40	RCSL-1.5-0200	4874 1009
	250	Ø 3.15 / 80	RCSL-3.1-0250	4874 110A
	600	Ø 3.15 / 80	RCSL-3.1-0600	4874 110D
	1000	Ø 3.15 / 80	RCSL-3.1-1000	4874 110F
RCLL	1000	Ø 4.7 / 120	RCLL-4.7-1000	4874 200F
		Ø 7.8 / 200	RCLL-7.8-1000	4874 210F
	2000	Ø 4.7 / 120	RCLL-4.7-2000	4874 200K
		Ø 7.8 / 200	RCLL-7.8-2000	4874 210K
	5000	Ø 12.0 / 305	RCLL-11.8-5000	4874 220P

Accessories	Product Model Number	Reference
DIN Rail 12 VDC power supply - 100-240 VAC input (can power 6 RCSL/RCLL sensors)	HDR-15-12	4870 3000