

Integrator amplifier for Rogowski sensor 5A current output

LOREME
CAL101rogo-3

- **Provide with 3 flexible Rogoflex sensors**

From 40 cm to 120 cm length + 2m cable length

Installation on bus bar where space is limited

- **3 x 5Aac outputs (1.8VA)**

Direct replacement of current transformers

- **2.5A to 50KA current measurement**

ratio : 500A, 1kA, 2.5kA, 5kA, 10kA, 25kA, 50kA
individual channel setting

50Hz and 60Hz systems (45...65Hz)

- **Applications** Retrofit installations.

Easily fit into tight panels and suit
of most installations.



The CAL101rogo-3 is a ready install kit for application where space is insufficient for conventional current transformers. The 5A outputs is useful for direct connexion with standard measure devices (counter, wattmeter, threshold relays, ...)

Description :

The **CAL101rogo-3** is for alternative current measurement within 7 configurable CT ratios : 500A/5A ; 1kA/5A ; 2.5kA/5A ; 5kA/5A ; 10kA/5A ; 25kA/5A and 50kA/5A.

Individual CT ratio can be configured for each channel (with dip-switches on front face) for single-phase applications. The measure range is from 0.5% to 120% of rated current input. The frequency range is from 45Hz to 65Hz.

Benefits of Rogowski current sensors :

The Rogowski coil current sensors are suitable for use where space is limited. The flexible form are easily fit into tight panels and are available on a wide range of size for most of applications (available from 40 cm to 120 cm).

Like standard split-core transformers, the Rogowski coils can be easily integrated into existing panels without having to cut lines.

Features :

Surfaced mounted or mounted on symmetrical DIN rail.
Protection rating IP20.
Wiring on screwed terminal block. 2.5mm² section maxi.

Installation :

- Install the Rogowski sensor around the conductor to be measured (close the sensor coil and center it as possible). Check if the three sensors are in the same direction.
- Connect the sensors to **CAL101rogo-3**
(white -> in+, Black -> in-, shield -> S)
- Connect the 5A outputs with respect of polarity (signal phase)
Use of 2.5mm² section wires for loss limitation.
- Connect the 24Vdc power supply
(It must be able to provide 1A)

Dip switch configuration


The front face have 3 sets of DIP switches used for setting the rating current ratio. The DIP switch is OFF when it is on the High position and ON when it is on the Low position. Configure the switches for each channel for the desired measure range.

	1	2	3	4	5
500:5A	ON	OFF	OFF	OFF	ON
1000:5A	ON	OFF	OFF	ON	OFF
2500:5A	ON	OFF	ON	OFF	OFF
5000:5A	OFF	OFF	OFF	OFF	ON
10000:5A	OFF	OFF	OFF	ON	OFF
25000:5A	OFF	OFF	ON	OFF	OFF
50000:5A	OFF	ON	ON	OFF	OFF

Version and order code:

Request a quote

CAL101rogo-3/40	Three-phase integrator. 5A outputs with 40cm Rogowski coil sensor(12cm diameter). 2m cable length.
CAL101rogo-3/60	Three-phase integrator. 5A outputs with 60cm Rogowski coil sensor(20cm diameter). 2m cable length.
CAL101rogo-3/90	Three-phase integrator. 5A outputs with 90cm Rogowski coil sensor(30cm diameter). 2m cable length.
CAL101rogo-3/120	Three-phase integrator. 5A outputs with 120cm Rogowski coil sensor(40cm diameter). 2m cable length.
option : AL140L	24Vdc / 1A power supply http://www.loreme.fr/fichtech/AL140L_eng.pdf

Measure				Environment	
Current (A)	measure (A)	Output	CT ratio	Operating temperature	-20 to 55 °C
500	2.5 to 600	5A @ 500A	500:5	Storage temperature	-25 to 85 °C
1000	5 to 1200	5A @ 1000A	1000:5	Thermal drift (% of full scale)	< 0.03 % / °C
2500	12.5 to 3000	5A @ 2500A	2500:5	Humidity	85 % (non condensed)
5000	25 to 6000	5A @ 5000A	5000:5	Weight	~ 650 g
10000	50 to 12000	5A @ 10000A	10000:5	Protection rating	IP20
25000	125 to 30000	5A @ 25000A	25000:5	Shock IEC 60068-2-27 (operating)	15 G / 11 ms
50000	250 to 60000	5A @ 50000A	50000:5	Bump IEC 60068-2-29 (transportation)	40 G / 6 ms
Frequency: 45 ... 65Hz				Vibration IEC 60068-2-6 (operating)	1 G / 10 - 150 Hz
				Vibration CEI 60068-2-6 (transportation)	2 G / 10 - 150 Hz
				Dielectric strength (Inputs/Power-Outputs-Relays)	2500 Vrms
				MTBF (MIL HDBK 217F)	> 3 000 000 Hrs @ 25°C
				Life time	> 200 000 Hrs @ 30°C
				Electromagnetic compatibility 2014/30/UE / Low Voltage Directive 2014/35/UE	
				Immunity standard for industrial environments EN 61000-6-2	Emission standard for industrial environments EN 61000-6-4
				EN 61000-4-2 ESD	EN 61000-4-8 AC MF
				EN 61000-4-3 RF	EN 61000-4-9 pulse MF
				EN 61000-4-4 EFT	EN 61000-4-11 AC dips
				EN 61000-4-5 CWG	EN 61000-4-12 ring wave
				EN 61000-4-6 RF	EN 61000-4-29 DC dips
				EN 55011	group 1 class A
					

Power supply			
24Vdc +/-5% max consumption 1A 25Watts			

WIRING AND OUTLINE DIMENSIONS: Length on the DIN rail : 215mm x 91mm

