INSTALLATION MANUAL

S201RC-LP

Alternate Current Loop-Powered
Converter for Rogowski Coil

EN

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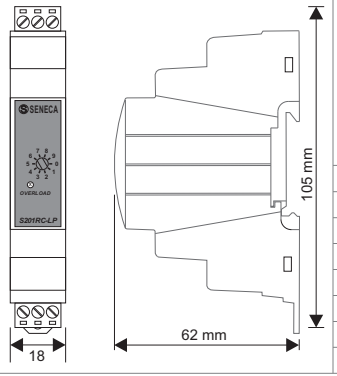
Manuals and configuration software are available at website www.seneca.it/products/s201rc-lp

MODULE LAYOUT



Dimensions (L×H×W)
18 x 62 x 105 mm (with terminals).
Weight
47 g.
Case
Material PC-ABS self-extinguishing, Grey color.
Mounting
35mm IEC EN60715 DIN Rail.

LED SIGNALING ON FRONT PANEL

LED	Status	LED's meaning
PWR (Red)	Blinking	Alarm: Measurement Out of Range

TECHNICAL SPECIFICATIONS

STANDARDS	**EN61326** (EMC requirements). **EN61010-1** (safety).
INSULATION	No insulation between input and output. The isolation with respect to the measuring circuit is realized by the Rogowski sensor used.
ENVIRONMENTAL CONDITIONS	
Temperature	-25°C – +70°C.
Humidity	10% – 90% non-condensing.
Altitude	Up to 2000 m. above sea level.
Storage temperature	-40°C – +85°C.
Protection rating	IP20.
Setting time	10 s.
Response time	500 ms.
Accuracy class	0.5% of the measure (see table: • **ERROR**).
Thermal drift	< 200 ppm/°C.
CONNECTIONS	Removable three pole screw terminal pitch 5mm, for cable up to 2.5 mm^2.
SENSOR CABLE	Length < 3m

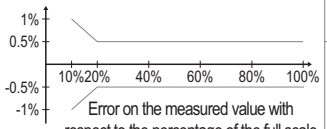
TECHNICAL SPECIFICATIONS

POWERSUPPLY	From output 4 – 20 mA loop. Voltage 9 – 28 V⎓. Power absorbed < 0.6W. Maximum load 600 Ω.
INPUT	Rogowski's sensor 100mV / kA scales: 250A, 500A, 1000A, 2000A and 4000A at 50-60Hz. Rogowski's sensor 333mV / kA scales: 75A, 150A, 300A, 600A and 1200A at 50-60Hz. Measurement: TRMS. Bandwidth 3kHz. Overload 20kA (2 Vrms). Mains filter damping: Fast = 0.5 s or Slow = 1 s.
OUTPUT	Current 4 – 20 mA. Maximum 22 mA. Overvoltage protection and polarity reversal protection.

• BANDWIDTH AND NOMINAL SENSITIVITY AT FULL SCALE

ENCODER POSITION	BANDWIDTH	SENSITIVITY AT 50 Hz	SENSITIVITY AT 60 Hz
0 / 5	10 Hz – 2 kHz	25 mV	30 mV
1 / 6	10 Hz – 2 kHz	50 mV	60 mV
2 / 7	10 Hz – 1 kHz	100 mV	120 mV
3 / 8	10 Hz – 500 Hz	200 mV	240 mV
4 / 9	10 Hz – 250 Hz	400 mV	480 mV

• ERROR



The overall error is the sum of the Rogowski transducer error with the module error.

The error of transducer depends on the correct position of the Rogowski transducer.
We suggest to place the sensor perpendicularly to the cable under test, with the junction away from the cable under test and away from other power cables.

PRELIMINARY WARNINGS

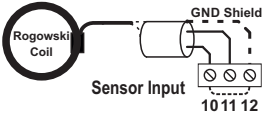
Before performing any operation is mandatory to read the full contents of this manual. The module may only be used by qualified and skilled technicians in the field of electric installation. Specific documentation is available for download at website: www.seneca.it/products/s201rc-lp.

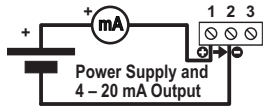
Only the Manufacturer is authorized to repair the module or to replace damaged parts. The product is susceptible to electrostatic discharge, take appropriate countermeasures during any operation.

No warranty is guaranteed in connection with faults resulting from improper use, from modifications or repairs carried out by Manufacturer-unauthorized personnel on the device, or if the content of this user Manual is not followed.

Disposal of electrical & electronic equipment (applicable throughout the EU and other countries with separate collection programs). The symbol found on this product or on its packaging, indicates that this product it must be handed over to an applicable collection point for **the recycling of electrical and electronic equipments.**

ELECTRICAL CONNECTIONS





ROGOWSKI'S SENSOR INSTALLATION

CONFIGURATIONS

Encoder Position	Full Scale 100mV/1kA	Full Scale 333mV/1kA	Damping Filter	Encoder Position	Full Scale 100mV/1kA	Full Scale 333mV/1kA	Damping Filter
0	250 A	75 A	Fast 0.5s	5	250 A	75 A	Slow 1s
1	500 A	150 A	Fast 0.5s	6	500 A	150 A	Slow 1s
2	1000 A	300 A	Fast 0.5s	7	1000 A	300 A	Slow 1s
3	2000 A	600 A	Fast 0.5s	8	2000 A	600 A	Slow 1s
4	4000 A	1200 A	Fast 0.5s	9	4000 A	1200 A	Slow 1s

ORDER CODES

Code	Description
S201RC-LP	Alternate Current Loop-Powered Converter for Rogowski Coil.
RC150-025-100-3M	Rogowski Coil L=25cm Ø int.8cm,100mV/1kA-50Hz, cable L=3mt.
RC150-035-100-3M	Rogowski Coil L=35cm Ø int.11cm,100mV/1kA-50Hz, cable L=3mt.
RC150-040-100-3M	Rogowski Coil L=40cm Ø int.12cm,100mV/1kA-50Hz, cable L=3mt.
RC150-060-100-3M	Rogowski Coil L=60cm Ø int.19cm,100mV/1kA-50Hz, able L=3mt.
RC150-090-100-3M	Rogowski Coil L=90cm Ø int.28cm,100mV/1kA-50Hz, cable L=3mt.
RC150-120-100-3M	Rogowski Coil L=120cm Ø int.38cm,100mV/1kA-50Hz, cable L=3mt.
RC150-180-100-3M	Rogowski Coil L=180cm Ø int.57cm,100mV/1kA-50Hz, cable L=3mt.
RC150-CAVEX-ROG1	Extension over 3 mt. for Rogowski coil connection cable L=1mt.
RC150-CAVEX-ROG2	Extension over 3 mt. for Rogowski coil connection cable L=2mt.
RC150-CAVEX-ROG3	Extension over 3 mt. for Rogowski coil connection cable L=3mt.
RC190-030-333-3M	Rogowski Coil L=30cm Ø int.9,5cm,333mV/1kA-50H, cable L=3mt.

CONTACTS

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