

FCA3000

Three phase Rogowski coil converter

- Three Rogowski coils input channels
- Three true RMS DC outputs
- One DC output for channels sum
- 0...20 mA, 4...20 mA or 0...10 VDC output
- Response time selectable by jumpers
- Suitable for three-phase systems
- 3000 A standard full scale value
- Customizable full scale up to hundreds kA
- Compact 9 DIN modules size



» General description

FCA3000 is a three-channel current converter with DC outputs. It converts the values measured by a Rogowski coil into true RMS value.

FCA3000 can be used with any model or size of MFC150 Rogowski coils, according to the application. The coils can be connected directly to FCA3000 without any adapter, as FCA3000 integrates the input signal, shifting it by 90°. FCA3000 has three independent input channels, suitable for three transducers, and four DC outputs. The first three outputs correspond to each transducer, the forth gives the sum of the three current channels.

FCA3000 enclosure is a 9 module DIN rail for fast installation. FCA3000 can be used as current measurement interface with industrial devices such as PLC, SCADA systems, protection systems, control systems, metering equipments etc.

Due to its specific features, flexible Rogowski coil is an extremely comfortable solution for current measurement and can be used in a number of cases where traditional current transducers are not the adequate solution.

» Benefits

- The fourth output corresponds to the sum of the three current channels; in three phase systems it represents the system value.
- The equalisation of the Rogowski coil signal guarantees the same output value at different electrical network frequencies.
- FCA3000 allows to select by jumper different output response time values. That makes it suitable to a large number of applications.
- The combination of three current channels and the power supply unit in the same box make it very compact and simplifies the connections, allowing time and space saving.
- The DIN rail case offers an easy and quick installation.

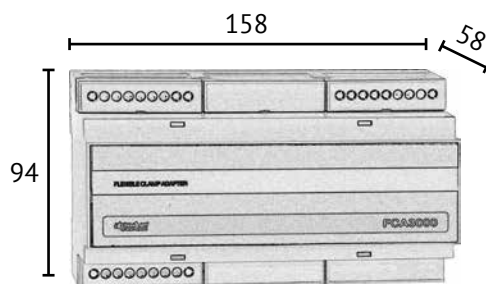
» Applications

- True RMS current measurement
- PLC interface
- Power monitoring and control systems
- Individual machine loading
- SCADA systems
- Very high current measurement

» Related Products

- MFC150

» Technical Drawing (mm)



» Specifications

POWER SUPPLY	
Rated voltage:	80...260 VAC (45...65 Hz)
Consumption:	3 VA max
MEASURING INPUTS	
Number:	3
Type:	for Rogowski coil with signal equalization
Sensitivity:	100mV/1kA@50Hz (only if purchased without MFC150 coil)
Full scale:	3000 A 10000 A other values on request (from 300 A to 300 kA)
ANALOG OUTPUTS	
Number:	4
Type:	0...20 mA 4...20 mA 0...10 VDC
Response time:	150 ms (standard) - selectable by jumpers from 50 to 150 ms approx.
Typical accuracy:	± 1% reading ± 0.3% full scale
ENVIRONMENTAL CONDITIONS	
Operating temperature:	from -10°C to +50°C
Storage temperature:	from -25°C to +60°C
Relative humidity:	75% max without condensation
CASE FEATURES	
Material:	plastic enclosure - noryl UL94-V0
Protection degree:	IP51 (front panel); IP20 (terminals)
Terminals:	conductors 2.5 mm ²
Size / weight:	158x94x58 mm / 250 g approx
STANDARDS COMPLIANCE	
Safety:	73/23/EEC and 93/68/EEC directives, EN61010.1 safety standard
EMC:	89/336/EEC directive and following modifications 93/31/EEC and 93/68/EEC, EN50081-2, EN50082-2, EN61326/A1

ORDER CODE	POWER SUPPLY	FULL SCALE VALUES			OUTPUTS		
	80...260VAC	3 kA	10 kA	100 kA	0...20mA	4...20mA	0...10VDC
FOR NO. 3 MFC150 ROGOWSKI COILS (not included)							
2101.0002.0001	•	•			•		
2101.0004.0001	•		•		•		
2101.0006.0001	•	•				•	
2101.0008.0001	•		•			•	
2101.0010.0001	•	•					•
2101.0012.0001	•		•				•
2101.0014.0001	•			•			•

OPTIONS AVAILABLE ONLY ON REQUEST

Custom full scale values (value/s to be specified)

100mV/1kA@50Hz input sensitivity (only if purchased without MFC150 coil)

To be indicated together with the selected order code from the list above.

NOTE: Subject to change without notice

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