

ROGOWSKI COILS
MFC150 series

Data sheet

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General description

MFC150 is a flexible current transducer based on the Rogowski principle.

Due to its specific features, flexible Rogowski coil is an extremely comfortable solution for current measurement. It can be used in a number of cases where traditional current transducers are less suitable.



The MFC150 coil is provided with a shield against the influence of external magnetic fields, therefore it grants a stable measurement from low currents to several kA.

Depending on the version (see order codes), the MFC150 coil is equipped with a mini-DIN plug for direct connection to the RCM 201-ROGO residual current monitoring device.

Flexible Rogowski coil MFC150

- Suitable to measure currents from mA to several kA
- High linearity over the measuring range
- Measurement uniformity at any position of the conductor inside the coil
- Delivered already calibrated
- Bayonet connector
- Very thin cable diameter: approx. 8 mm (0.33 in)
- Very useful with large size or awkward shaped conductors or in places with limited access
- No danger from voltage peaks with open secondary circuit
- Not damaged by overloads
- Non-intrusive, no power drawn from the main
- Lightweight, can be replaced on the measured conductor
- Totally shielded
- UL Recognized Component Mark UL 61010-1

TECHNICAL DATA

Rogowski Coil

Environmental conditions	
Protection degree	IP67 (UL Recognized UL 61010-1)
Altitude	Up to 2000 m (1.24 mi) over sea-level
Operating temperature	-30 ... +80°C (-22 ... +176°F)
Storage temperature	-40 ... +80°C (-40 ... +176°C)
Relative humidity	0 ... 95%
Installation and use	Indoor

Coil	
Coil length	ca. 40 ... 190 cm (15.75 ... 74.80 in) (see order codes)
Sensor internal diameter	ca. 12 ... 58 cm (4.72 ... 22.83 in) (see order codes)
Cable diameter	8.3 ± 0.2 mm (0.33 ± 0.008 in)
Jacket material	Thermoplastic polyurethane UL94-V0
Fastening	Bayonet holder
Weight	150 ... 500 g (0.33 ... 1.10 lb)

Electrical characteristic	
Nominal output rate	100 mV / kA @ 50 Hz (RMS values)
Max measurable current	100 kA
Coil resistance	70 ... 900 Ω
Positioning error	Better than ±1% of reading
Frequency	50/60 Hz
Overvoltage category	1000 V CAT III, 600 V CAT IV
Pollution degree	2
Insulation test voltage	7400 V _{RMS} / 1 min

Connection cable	
Type	3 x 22 AWG shielded
Length	3 m (118.1 in)

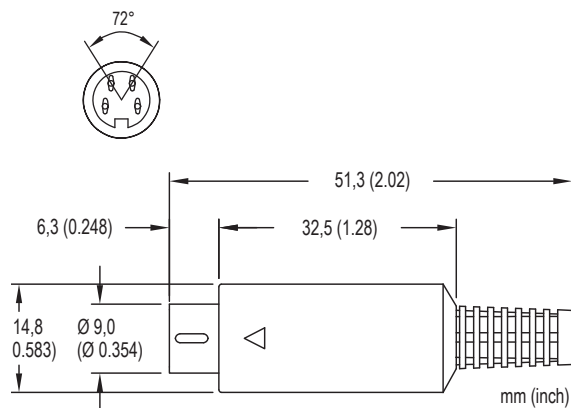
Standard compliance	
IEC, UL standards	UL 61010-1 Ed3, UL 61010-2-032, CAN/CSA-C22.2 No. 61010-1, IEC 60529

TECHNICAL DATA

Connector

Item numbers 15.03.622 - 626

Connector	
Type	Male mini-DIN plug, 4 pin, for direct connection to RCM 201-ROGO
Insulator material	PBT glass filled, rated UL94V-0
Insulator color	Black
Contacts material	Brass
Shield material	Copper alloy, tin plated
Contact plating	Nickel on mating area, tin over copper underplate on solder area
Operating temperature	-25°C (-13°F) to +70°C (158 °F)
Operating voltage	100V AC / 12V DC max.
Current rating	Mini-DIN: 1 A max.
Contact resistance	20 mΩ max. initial
Insulation resistance	500 MΩ min.
Dielectric withstanding voltage	500V AC for 1 minute



ORDER CODES

Item no.		Diameter (ca.)	Length (ca.)
With connector	Without connector		
15.03.622	15.03.635	120 mm (4.7 in)	375 mm (14.7 in)
15.03.623	15.03.636	200 mm (7.9 in)	630 mm (24.8 in)
15.03.624	15.03.637	290 mm (11.4 in)	910 mm (35.8 in)
15.03.625	15.03.638	390 mm (15.3 in)	1230 mm (48.4 in)
15.03.626	15.03.639	580 mm (22.8 in)	1800 mm (70.9 in)

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