Data sheet

RCMA-B22-D175-1.5

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Rogowski coilA Rogowski coil is a closed air coil without a ferromagnetic core used for floating potential measurement of AC and pulse currents. Measurement with the Ragowski coil is used widely in technology, as it can be retroactively integrated without separating the primary electric circuit in existing systems. Because this method shows no saturation effect, even the smallest currents and high-frequency harmonics can be measured without loss of accuracy.

General ordering data

Version	Rogowski coil, Diameter: 175 mm, Cable length: 1.5 m, 100...5000 A, Output : Pulse, mV signal
Order No.	2593390000
Type	RCMA-B22-D175-1.5
GTIN (EAN)	4050118647792
Qty.	1 items

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E469563

Dimensions and weights

Diameter	175 mm	Net weight	148 g

Temperatures

Storage temperature	-40 °C...80 °C	Operating temperature	-40 °C...80 °C
Humidity at operating temperature	5 - 90 %, no condensation		

Environmental Product Compliance

RoHS Compliance Status	Compliant without exemption
REACH SVHC	No SVHC above 0.1 wt%

Dimensions of live conductors

Type of conductor	Conductor rail, Round conductor, Non-insulated conductors	Round conductor	175.00 mm

Electrical attributes

Measurement error	<± 0.5% (of measuring range limit)	Tolerance class	0,5
Nominal turns ratio	44.44 kA/V	Primary conductor temperature	105 °C
Phase shift	0.004 °	Frequency band	50...60 Hz
Secondary voltage	22,5 mV (@ 50Hz Iprimary = 1 kA), 30 V (max)	Primary current	5000 A

Technical properties

Cable length	1.5 m	Protection degree	IP57
Cable diameter	6.1 mm	Coil resistance	105 Ω

General data

Standard	IEC 61010-1: 2010, IEC 61869-1: 2007, IEC 61869-2: 2012, IEC 61869-6: 2016, IEC 61869-10: 2017, UL 61010-1	Protection degree	IP57
Linearity	no linearity error	Configuration	none

Insulation coordination

Standard	IEC 61010-1: 2010, IEC 61869-1: 2007,	Impulse withstand voltage	12.8 kV (1.2/50 ms)

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Technical data

	IEC 61869-2: 2012, IEC 61869-6: 2016, IEC 61869-10: 2017, UL 61010-1		
Surge voltage category	III	Pollution severity	2
Tolerance class	0,5	Insulation voltage	7.4 kVRMS(50 Hz, 1 min)
Rated insulation voltage	1000V reinforced insulation according to IEC 61010-1, CAT III, PD2, 1000V basic insulation according to IEC 61010-1, CAT IV, PD2, 600V reinforced insulation in accordance with IEC 61010-1, CAT IV, PD2	Tracking resistance (CTI)	600

Part description

Product description	The Rogowski coil RCMA-B22-DXX is intended for the electronic measurement of alternating current. The Rogowski coil must only be used in conjunction with a Weidmüller transducer RCMC-5000-XX. Functional description The primary circuit (power circuit) and the secondary circuit (measurement circuit) are galvanically isolated by the Rogowski coil. As there is no saturation effect, currents can be measured over a wide primary current range without any losses in accuracy. Features • Conductor diameter of the measuring coil: 6.1 mm • Housing tabs for attachment with cable ties • Sealable bayonet fastening

Classifications

ETIM 8.0	EC002475	ETIM 9.0	EC002475
ETIM 10.0	EC002475	ECLASS 14.0	27-21-01-23
ECLASS 15.0	27-21-01-23		

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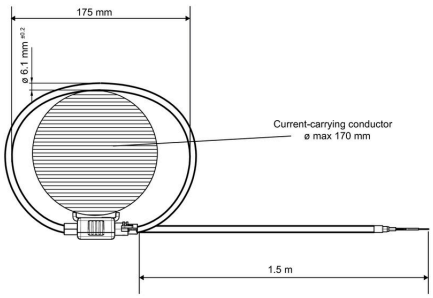
Drawings

Dimensioned drawing



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Accessories

Rogowski coils

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General ordering data

Type	RCMC-5000-AO-P	Version
Order No.	2593410000	Measuring transducer, every Rogowski coil, 100...5000 A, Output :
GTIN (EAN)	4050118647754	analogue V / mA
Qty.	1 ST	
Type	RCMC-5000-1A-P	Version
Order No.	2593400000	Measuring transducer, every Rogowski coil, 100...5000 A, Output :
GTIN (EAN)	4050118647822	0...1 A AC
Qty.	1 ST	