RCMA-B22-D70-4.5

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

www.weidmueller.com

Rogowski coil

A 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: 70 mm, Cable length: 4.5 m, 100...5000 A, Output : Pulse, mV signal
Order No.	2593340000
Type	RCMA-B22-D70-4.5
GTIN (EAN)	4050118647761
Qty.	1 pc(s).

Weidmüller

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Technical data

Dimensions and weights

Diameter	70 mm	Net weight	260 g

Temperatures

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

Dimensions of live conductors

Type of conductor	Insulated conductor only	Round conductor	70 mm
Installation location	Indoor use		

Electrical attributes

Frequency band	50...60 Hz	Measurement error	<± 0.5% (of measuring range limit)
Nominal turns ratio	44.44 kA/V	Phase shift	0.004 °
Primary current	5,000 A	Secondary voltage	22,5 mV (@ 50Hz $I_{primary}$ = 1 kA), 30 V (max)
Tolerance class	0,5		

Technical properties

Cable diameter	6.1 mm	Cable length	4.5 m
Coil resistance	56 Ω	Protection degree	IP57

Input

Outer cable diameter, max.	70 mm

General data

Linearity	no linearity error	Protection degree	IP57
Standard	IEC 61010-1: 2010, IEC 61869-1: 2007, IEC 61869-2: 2012, IEC 61869-6: 2016, IEC 61869-10: 2017, UL 61010-1		

Insulation coordination

Impulse withstand voltage	12.8 kV (1.2/50 ms)	Insulation voltage	7.4 kV_{RMS}(50 Hz, 1 min)
Pollution severity	2	Rated insulation voltage	1 kV_{rms}
Standard	IEC 61010-1: 2010, IEC 61869-1: 2007, IEC 61869-2: 2012, IEC 61869-6: 2016, IEC 61869-10: 2017, UL 61010-1	Surge voltage category	III
Tolerance class	0,5	Tracking resistance (CTI)	600

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Classifications

ETIM 6.0	EC002475	ETIM 7.0	EC002475
ETIM 8.0	EC002475	ETIM 9.0	EC002475
ECLASS 9.0	27-21-01-23	ECLASS 9.1	27-21-01-23
ECLASS 10.0	27-21-01-23	ECLASS 11.0	27-21-01-23
ECLASS 12.0	27-21-01-23	ECLASS 13.0	27-21-01-23

Important note

Product information	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

Approvals

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

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity
User Documentation	Instruction sheet
Catalogues	Catalogues in PDF-format

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Drawings

Dimensioned drawing