

RCMA-B22-D175-6.0**Weidmüller Interface GmbH & Co. KG**Klingenbergsstraße 26
D-32758 Detmold
Germanywww.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 Rogowski 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: 6 m, 100...5000 A, Output : Pulse, mV signal
Order No.	2831110000
Type	RCMA-B22-D175-6.0
GTIN (EAN)	4064675414902
Qty.	1 items

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Technical data

Approvals

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

Dimensions and weights

Diameter	175 mm	Net weight	326 g
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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
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Electrical attributes

Measurement error	<± 0.5% (of measuring range limit)	Tolerance class	0,5
Nominal turns ratio	44.44 kA/V	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	6 m	Protection degree	IP57
Cable diameter	6.1 mm	Coil resistance	81 Ω

General data

Protection degree	IP57	Linearity	no linearity error
Configuration	none		

Insulation coordination

Impulse withstand voltage	12.8 kV (1.2/50 ms)	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

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61010-1, CAT IV, PD2,
600V reinforced insulation
in accordance with IEC
61010-1, CAT IV, PD2

Tracking resistance (CTI)	600
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Part description

Product description	<p>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.</p> <p>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.</p> <p>Features</p> <ul style="list-style-type: none">• Conductor diameter of the measuring coil: 6.1 mm• Housing tabs for attachment with cable ties• Sealable bayonet fastening
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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

