

RCMA-B22-D175-6.0**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 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 pc(s).

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Technical data

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		

Dimensions of live conductors

Type of conductor	Insulated conductor only	Round conductor	175 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	6 m
Coil resistance	81 Ω	Protection degree	IP57

Input

Outer cable diameter, max.	175 mm
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General data

Linearity	no linearity error	Protection degree	IP57
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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	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
Surge voltage category	III	Tolerance class	0,5
Tracking resistance (CTI)	600		

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

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Environmental Product Compliance

REACH SVHC

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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

