

RCMC-5000-AO-P**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com**Product image****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 | Measuring transducer, every Rogowski coil, 100... 5000 A, Output : analogue V / mA |
| Order No. | 2593410000 |
| Type | RCMC-5000-AO-P |
| GTIN (EAN) | 4050118647754 |
| Qty. | 1 pc(s). |

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Technical data

Dimensions and weights

| | | | |
|------------|---------|-----------------|------------|
| Depth | 78 mm | Depth (inches) | 3.071 inch |
| Height | 100 mm | Height (inches) | 3.937 inch |
| Width | 23.1 mm | Width (inches) | 0.909 inch |
| Net weight | 58 g | | |

Temperatures

| | | | |
|---------------------|---------------------------|-----------------------|----------------|
| Storage temperature | -40 °C...85 °C | Operating temperature | -25 °C...70 °C |
| Humidity | 5...95 %, no condensation | | |

Dimensions of live conductors

| | | | |
|-------------------|--------------------------|-----------------------|------------|
| Type of conductor | Insulated conductor only | Installation location | Indoor use |
|-------------------|--------------------------|-----------------------|------------|

Electrical attributes

| | | | |
|-------------------|--|-----------------|---------|
| Frequency band | 50...60 Hz | Primary current | 5,000 A |
| Secondary voltage | 22,5 mV (@ 50Hz I _{primary} = 1 kA) | | |

Technical properties

| | |
|-------------------|------|
| Protection degree | IP20 |
|-------------------|------|

Input

| | | | |
|-------------------------|---|--------------|--|
| Input measurement range | 100 A, 200 A, 300 A, 400 A, 500 A, 600 A, 800 A, 1000 A, 1500 A, 2000 A, 4000 A, 5000 A | Input signal | every Weidmüller Rogowski coil RCMA-B22-D... |
|-------------------------|---|--------------|--|

Output

| | | | |
|------------------------|---|------------------------|----------------------|
| Load impedance current | ≤ 500 Ω | Output current | 0...20 mA, 4...20 mA |
| Output voltage, note | 0...5 V DC, 0...10 V DC, 0...225 mV AC, 0...333 mV AC | load impedance voltage | ≥ 1 kΩ |

General data

| | | | |
|---------------------|---|-------------------------|---------------------------------|
| Accuracy | <0.5 % of measuring range | Configuration | Keys and LED display |
| Current consumption | 200 mA typical | Galvanic isolation | between input / output / supply |
| Linearity | ± 0.1 % typ. | Protection degree | IP20 |
| Standard | EN 61010-1: 2010, EN 61010-2-030:2010, EN 61326-1: 2013, EN 61000-6-2:2005, EN 61000-6-3:2007 | Temperature coefficient | ≤ 0.015 % / °C |
| Voltage supply | 24 V DC ± 25 % | | |

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Technical data

Insulation coordination

| | | | |
|--------------------|---------------------------------|--------------------|---|
| Galvanic isolation | between input / output / supply | Insulation voltage | 1.5 kV AC 1 min. |
| Pollution severity | 2 | Standard | EN 61010-1: 2010, EN 61010-2-030:2010, EN 61326-1: 2013, EN 61000-6-2:2005, EN 61000-6-3:2007 |

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 |
| ECLASS 14.0 | 27-21-01-23 | | |

Environmental Product Compliance

| | |
|------------------------|-----------------------------|
| REACH SVHC | / |
| RoHS Compliance Status | Compliant without exemption |

Important note

| | |
|---------------------|---|
| Product information | <p>The RCMC-5000-XX measuring transducer is designed for electronic measurement of AC current. The RCMC-5000-XX measuring transducer may only be used together with a Weidmüller RCMA-B22-DXX Rogowski coil.</p> <p>Functional description</p> <p>The RCMC-5000-XX measuring transducer converts the signal from the Rogowski coil into an analogue output signal with high phase fidelity.</p> <p>The device is configured using two front buttons.</p> <p>LEDs display the operating and configuration status.</p> <p>Features</p> <ul style="list-style-type: none"> • 12 selectable current measuring ranges • USB connection: exclusively for power supply! |
|---------------------|---|

Approvals

Approvals



| | |
|-------------------------|------------|
| ROHS | Conform |
| UL File Number Search | UL Website |
| Certificate no. (cULus) | E469563 |

Downloads

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

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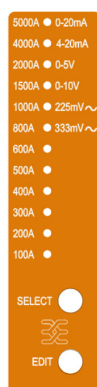
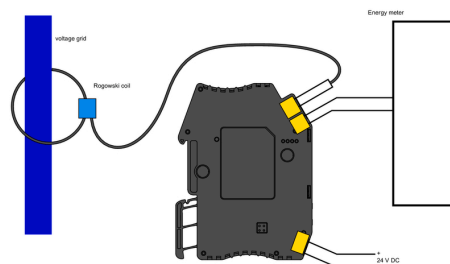
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Drawings

Application



use with Rogowski coil



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Accessories

Rogowski coils



Rogowski coil

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General ordering data

| | | |
|------------|----------------------------|---|
| Type | RCMA-B22-D125-1.5 | Version |
| Order No. | 2593380000 | Rogowski coil, Diameter: 125 mm, Cable length: 1.5 m, 100...5000 A, |
| GTIN (EAN) | 4050118647808 | Output : mV signal |
| Qty. | 1 pc(s). | |
| Type | RCMA-B22-D70-1.5 | Version |
| Order No. | 2593370000 | Rogowski coil, Diameter: 70 mm, Cable length: 1.5 m, 100...5000 A, |
| GTIN (EAN) | 4050118647815 | Output : Pulse, mV signal |
| Qty. | 1 pc(s). | |
| Type | RCMA-B22-D125-4.5 | Version |
| Order No. | 2593350000 | Rogowski coil, Diameter: 125 mm, Cable length: 4.5 m, 100...5000 A, |
| GTIN (EAN) | 4050118647778 | Output : Pulse, mV signal |
| Qty. | 1 pc(s). | |
| Type | RCMA-B22-D175-4.5 | Version |
| Order No. | 2593360000 | Rogowski coil, Diameter: 175 mm, Cable length: 4.5 m, 100...5000 A, |
| GTIN (EAN) | 4050118647785 | Output : Pulse, mV signal |
| Qty. | 1 pc(s). | |
| Type | RCMA-B22-D70-4.5 | Version |
| Order No. | 2593340000 | Rogowski coil, Diameter: 70 mm, Cable length: 4.5 m, 100...5000 A, |
| GTIN (EAN) | 4050118647761 | Output : Pulse, mV signal |
| Qty. | 1 pc(s). | |
| Type | RCMA-B22-D175-1.5 | Version |
| Order No. | 2593390000 | Rogowski coil, Diameter: 175 mm, Cable length: 1.5 m, 100...5000 A, |
| GTIN (EAN) | 4050118647792 | Output : Pulse, mV signal |
| Qty. | 1 pc(s). | |