

MCR-SL-S-100-I-LP - Current measuring transducer



2813486

<https://www.phoenixcontact.com/us/products/2813486>

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MCR current measuring transducer, for measuring sinusoidal and non-sinusoidal alternating currents, input current 0...100 A, loop-powered output with 4...20 mA

Your advantages

- Can be retrofitted with open-up Rogowski coil
- Loop-powered
- 30 ... 6000 Hz true r.m.s. value measurement
- Measuring range selection via slide switch

Commercial data

| | |
|--------------------------------------|---------------|
| Item number | 2813486 |
| Packing unit | 1 pc |
| Minimum order quantity | 1 pc |
| Sales key | C444 |
| Product key | CMMA23 |
| GTIN | 4046356043663 |
| Weight per piece (including packing) | 141.4 g |
| Weight per piece (excluding packing) | 141.4 g |
| Customs tariff number | 85437090 |
| Country of origin | JP |

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Technical data

Product properties

| | |
|--------------|------------------------------|
| Product type | Current measuring transducer |
|--------------|------------------------------|

Insulation characteristics

| | |
|----------------------|-----|
| Overvoltage category | III |
| Pollution degree | 2 |

Electrical properties

| | |
|---|--------------------------|
| Maximum power dissipation for nominal condition | 1 W |
| Test voltage input/output | 4.13 kV AC (50 Hz, 60 s) |
| Step response (10-90%) | < 340 ms |
| Maximum temperature coefficient | < 0.025 %/K |
| Maximum transmission error | < 1 % (of final value) |
| Rated insulation voltage | 300 V AC (to earth) |

Supply

| | |
|----------------------|--|
| Supply voltage range | loop-powered, no external supply necessary |
|----------------------|--|

Input data

Signal

| | |
|---------------------------|---------------|
| Configurable/programmable | Yes |
| Current input signal | 0 A ... 100 A |

Measurement

| | |
|--------------------------------------|--|
| Input current range | 0 A AC ... 50 A AC |
| | 0 A AC ... 75 A AC |
| | 0 A AC ... 100 A AC |
| Setting range for min. input current | 0 A AC ... 50 A AC |
| Setting range for max. input current | 0 A AC ... 100 A AC |
| Overload capacity | Depending on laid conductor |
| Surge strength | Depending on through connected conductor |
| Frequency measuring range | 30 Hz ... 6000 Hz |
| Curve type | Sinusoidal and non-sinusoidal |
| Operate threshold | 1 % (of final value) |

Output data

Signal: Current

| | |
|---------------------------------|--|
| Current output signal | 4 mA ... 20 mA |
| Max. current output signal | < 25 mA |
| Load/output load current output | $(U_B - 12 \text{ V}) \times 350 / 12 \text{ A}$ |

Connection data

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| | |
|----------------------------------|---|
| Connection method | Screw connection |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross-section rigid | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section flexible | 0.2 mm ² ... 2.5 mm ² |
| Conductor cross-section AWG | 24 ... 14 |
| Tightening torque | 0.5 Nm ... 0.6 Nm (4,4 ... 5,31 lbf-in.) |
| Connection method | Through connection |

Dimensions

Item dimensions

| | |
|--------|---------|
| Width | 55 mm |
| Height | 85 mm |
| Depth | 70.5 mm |

Circular conductor

| | |
|----------|-----------|
| Diameter | ≤ 18.5 mm |
|----------|-----------|

Material specifications

| | |
|------------------|-----------------------------|
| Color | green (RAL 6021) |
| Housing material | Polyamide PA non-reinforced |

Environmental and real-life conditions

Ambient conditions

| | |
|---|------------------|
| Degree of protection | IP20 |
| Ambient temperature (operation) | -20 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |

Approvals

CE

| | |
|-------------|--------------|
| Certificate | CE-compliant |
|-------------|--------------|

UL, USA/Canada

| | |
|----------------|--|
| Identification | UL/C-UL Listed UL 508 |
| | Class I, Div. 2, Groups A, B, C, D T4A |
| | Class I, Zone 2, Group IIC T4A |
| | Or Non-Hazardous Locations only |

Mounting

| | |
|-------------------|-------------------|
| Mounting type | DIN rail mounting |
| Mounting position | any |

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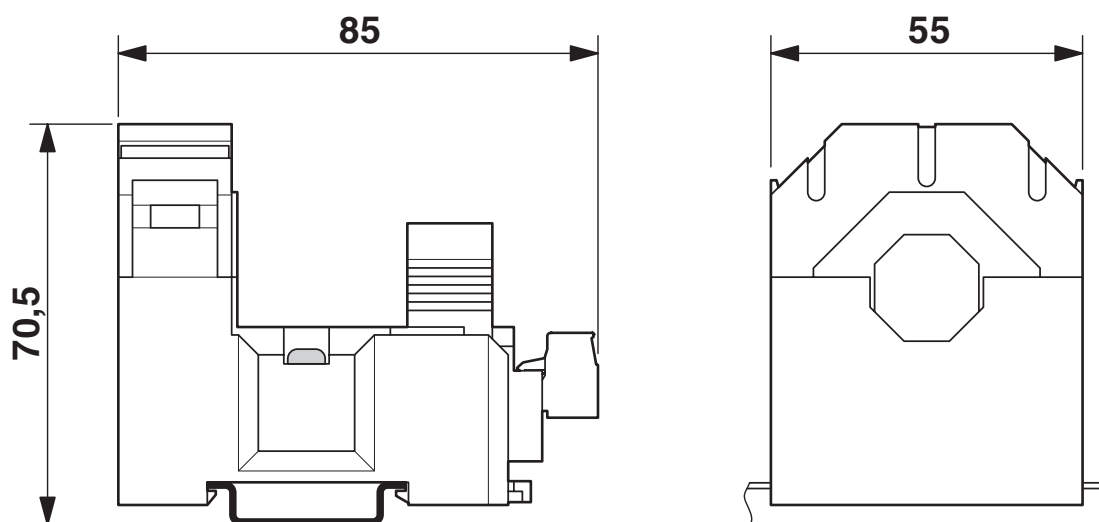


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Drawings

Dimensional drawing



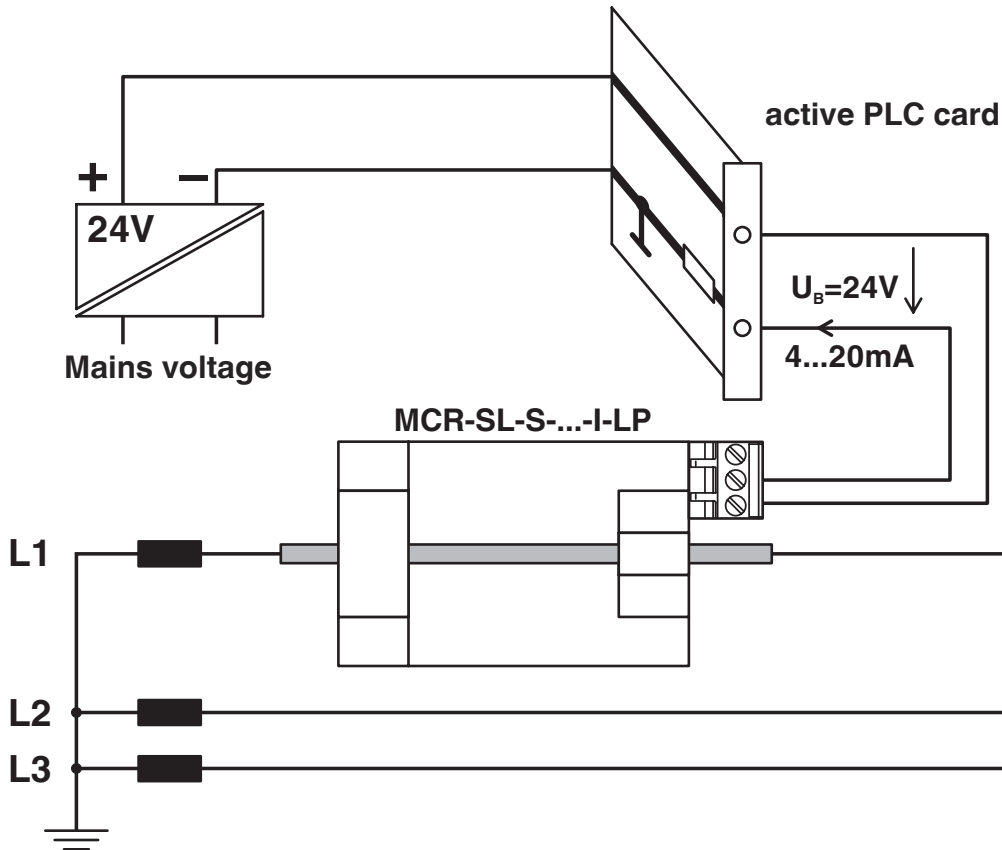
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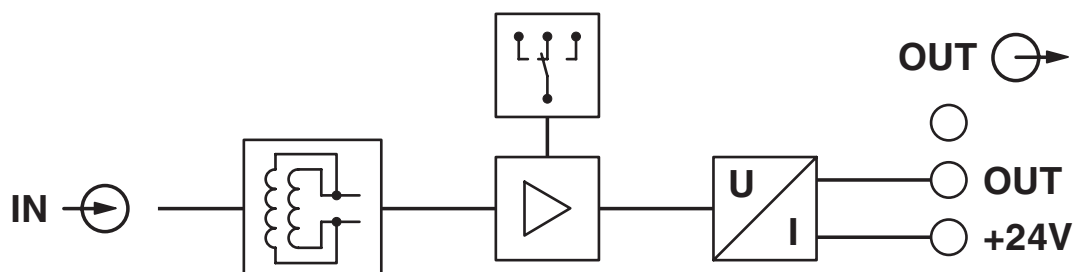
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Application drawing



Current monitoring

Circuit diagram



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Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/2813486>



EAC

Approval ID: RU*DE.*08.B.01852-19



UL Listed

Approval ID: E123528



cUL Listed

Approval ID: E123528

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Classifications

ECLASS

| | |
|-------------|----------|
| ECLASS-13.0 | 27210123 |
| ECLASS-15.0 | 27210123 |

ETIM

| | |
|-----------|----------|
| ETIM 10.0 | EC002475 |
|-----------|----------|

UNSPSC

| | |
|-------------|----------|
| UNSPSC 21.0 | 39121000 |
|-------------|----------|

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Environmental product compliance

EU RoHS

| | |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes, No exemptions |
|---|--------------------|

China RoHS

| | |
|--|---|
| Environment friendly use period (EFUP) | EFUP-25 |
| | An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required. |

EU REACH SVHC

| | |
|-------------------------------------|----------------------------|
| REACH candidate substance (CAS No.) | No substance above 0.1 wt% |
|-------------------------------------|----------------------------|

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Phoenix Contact USA
586 Fulling Mill Road
Middletown, PA 17057, United States
(+717) 944-1300
info@phoenixcon.com