

Current transducers - MCR-S-1-5-UI-DCI - 2814634

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MCR current transducer, programmable and configurable, for measuring direct, alternating and distorted currents, input current 0 ... 0.2 A to 0 ... 11 A, configured

Your advantages

- 3-way isolation
- True r.m.s. value measurement
- Device can be set via DIP switches or MCR/PI-CONF-WIN configuration software



Key Commercial Data

| | |
|--------------|------|
| Packing unit | 1 pc |
|--------------|------|

Configuration

| | |
|--------------------------|---|
| Start of measuring range | 0 |
| End of measuring range | 5 |

Technical data

Note

| | |
|-------------------------|---|
| Utilization restriction | EMC: class A product, see manufacturer's declaration in the download area |
|-------------------------|---|

Dimensions

| | |
|--------|----------|
| Width | 22.5 mm |
| Height | 99 mm |
| Depth | 114.5 mm |

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -20 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Maximum altitude | < 2000 m |

Input data

| | |
|-------|-------------------------|
| Input | Current measuring input |
|-------|-------------------------|

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Technical data

Input data

| | |
|--------------------------------------|---|
| Number of inputs | 3 |
| Configurable/programmable | Yes, preconfigured |
| Input current range | 0 A ... 11 A (AC/DC) |
| Operate threshold | 2 % (of measuring range nominal value 1/5/10 A) |
| Setting range for min. input current | 0 A ... 200 mA |
| Setting range for max. input current | 0 A ... 11 A |
| Impulse form | AC, DC or distorted currents |
| Overload capacity | 2 x I _N (continuous) |
| Surge strength | 20 x I _N (1 s) |
| Frequency measuring range | 15 Hz ... 400 Hz |
| Connection method | Screw connection |

Output data

| | |
|---------------------------------|---------------------------------|
| Output name | Voltage output / current output |
| Configurable/programmable | Yes, preconfigured |
| Voltage output signal | 0 V ... 10 V |
| | 2 V ... 10 V |
| | -10 V ... 10 V |
| | 0 V ... 5 V |
| | 1 V ... 5 V |
| | -5 V ... 5 V |
| | 10 V ... 0 V |
| | 10 V ... 2 V |
| | 10 V ... -10 V |
| | 5 V ... 0 V |
| | 5 V ... 1 V |
| | 5 V ... -5 V |
| Current output signal | 0 mA ... 20 mA |
| | 4 mA ... 20 mA |
| | 20 mA ... 0 mA |
| | 20 mA ... 4 mA |
| Load/output load voltage output | > 10 kΩ |
| Load/output load current output | < 500 Ω |

Switching output

| | |
|-------------|---------------------|
| Output name | No switching output |
|-------------|---------------------|

Power supply

| | |
|--------------------------|------------------------|
| Supply voltage range | 20 V DC ... 30 V DC |
| Max. current consumption | < 40 mA (without load) |

Connection data

| | |
|-------------------|------------------|
| Connection method | Screw connection |
|-------------------|------------------|

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Connection data

| | |
|---------------------------------------|---------------------|
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 14 |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Stripping length | 8 mm |
| Screw thread | M3 |

General

| | |
|----------------------------------|---|
| Maximum transmission error | < 0.5 % (of nominal range value under nominal conditions) |
| Temperature coefficient, typical | < 0.025 %/K |
| Step response (10-90%) | 330 ms (with AC) |
| | 40 ms (with DC) |
| Status display | Green LED |
| Overvoltage category | III |
| Degree of pollution | 2 |
| Rated insulation voltage | 300 V AC (to earth) |
| Test voltage input/output | 4 kV (50 Hz, 1 min.) |
| Test voltage input/power supply | 4 kV (50 Hz, 1 min.) |
| Test voltage output/power supply | 500 V (50 Hz, 1 min.) |
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | EN 61000-6-4 |
| Noise immunity | EN 61000-6-2 |
| Color | green |
| Housing material | Polyamide PA non-reinforced |
| Mounting position | any |
| Conformance | CE-compliant |
| UL, USA/Canada | Class I, Zone 2, AEx nA nC IIC T4, Ex nA nC IIC T4 Gc X |
| | Class I, Div. 2, Groups A, B, C and D or Non-Hazardous Locations Only |

Standards and Regulations

| | |
|----------------------------------|---|
| Electromagnetic compatibility | Conformance with EMC directive |
| Noise emission | EN 61000-6-4 |
| Noise immunity | EN 61000-6-2 |
| Connection in acc. with standard | CUL |
| Low Voltage Directive | Conformance with Low Voltage Directive |
| Conformance | CE-compliant |
| UL, USA/Canada | Class I, Zone 2, AEx nA nC IIC T4, Ex nA nC IIC T4 Gc X |
| | Class I, Div. 2, Groups A, B, C and D or Non-Hazardous Locations Only |

Environmental Product Compliance

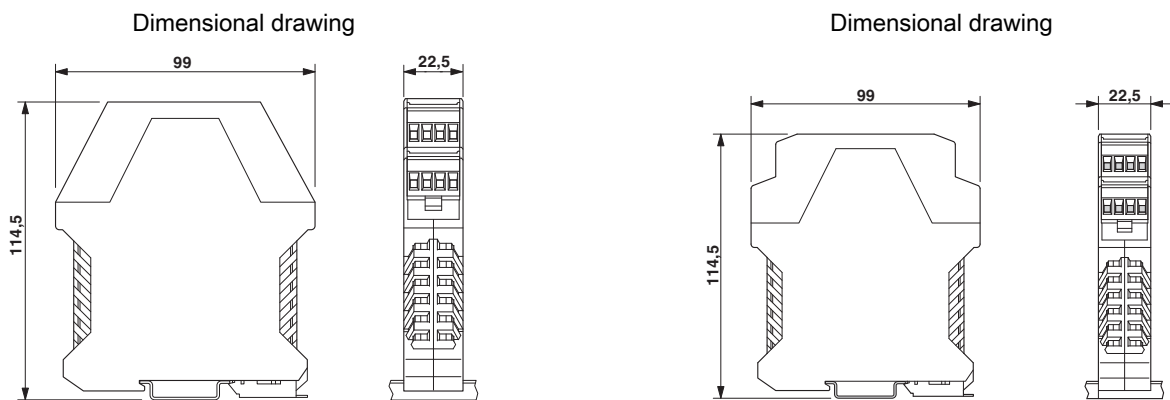
Current transducers - MCR-S-1-5-UI-DCI - 2814634

Technical data

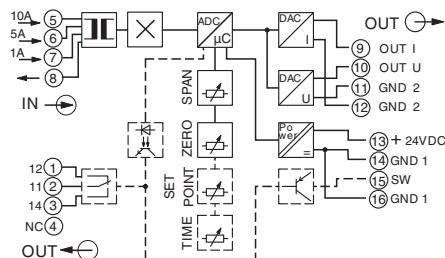
Environmental Product Compliance

| | |
|------------|---|
| China RoHS | Environmentally Friendly Use Period = 50 |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings



Circuit diagram



Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized


Ex Approvals


UL Listed / cUL Listed / cULus Listed

Approval details


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Approvals

| | | | |
|---------------|---|---|---------------|
| UL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
|---------------|---|---|---------------|

| | | | |
|----------------|---|---|---------------|
| cUL Recognized |  | http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm | FILE E 238705 |
|----------------|---|---|---------------|

| | | |
|-----|---|---------------|
| EAC |  | EAC-Zulassung |
|-----|---|---------------|

| | |
|------------------|---|
| cULus Recognized |  |
|------------------|---|

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