

Current transducers - MCR-S-1/5-UI-DCI-NC - 2814715

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



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


Your advantages

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

RoHS



Key Commercial Data

| | |
|--------------------------------------|---|
| Packing unit | 1 pc |
| GTIN |  4 017918 169275 |
| GTIN | 4017918169275 |
| Weight per Piece (excluding packing) | 192.100 g |
| Custom tariff number | 85437090 |
| Country of origin | Germany |

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 |

Current transducers - MCR-S-1/5-UI-DCI-NC - 2814715

Technical data

Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -20 °C ... 60 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Maximum altitude | < 2000 m |
| Degree of protection | IP20 |
| Noise immunity | EN 61000-6-2 |

Input data

| | |
|--------------------------------------|---|
| Input | Current measuring input |
| Number of inputs | 3 |
| Configurable/programmable | Yes, unconfigured |
| 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, unconfigured |
| 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 |

Current transducers - MCR-S-1/5-UI-DCI-NC - 2814715

Technical data

Output data

| | |
|---------------------------------|----------------|
| | 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 |
| Stripping length | 8 mm |
| Screw thread | M3 |
| Conductor cross section solid | 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 |

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 |

Standards and Regulations

| | |
|-------------------------------|--------------------------------|
| Electromagnetic compatibility | Conformance with EMC directive |
|-------------------------------|--------------------------------|

Current transducers - MCR-S-1/5-UI-DCI-NC - 2814715

Technical data

Standards and Regulations

| | |
|----------------------------------|---|
| 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 |

Conformance/approvals

| | |
|----------------|---|
| Designation | CE |
| Identification | CE-compliant |
| Designation | UL, USA/Canada |
| Identification | 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 |

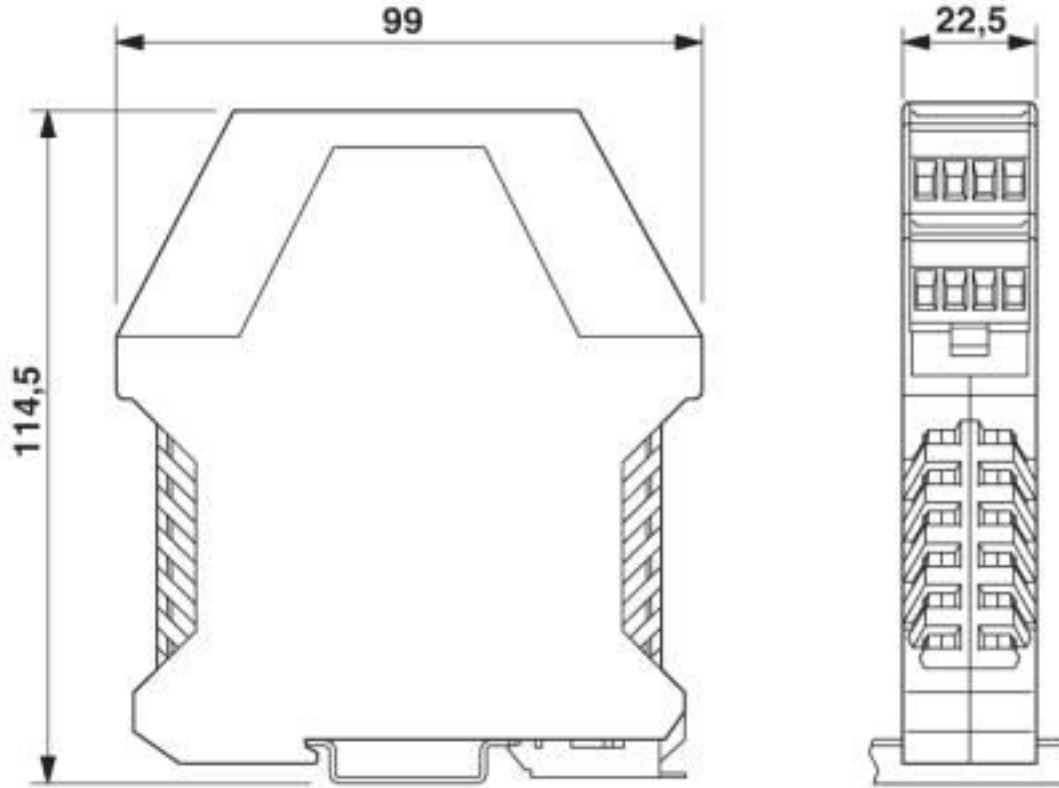
Environmental Product Compliance

| | |
|------------|---|
| REACH SVHC | Lead 7439-92-1 |
| China RoHS | Environmentally Friendly Use Period = 50 years |
| | For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration" |

Drawings

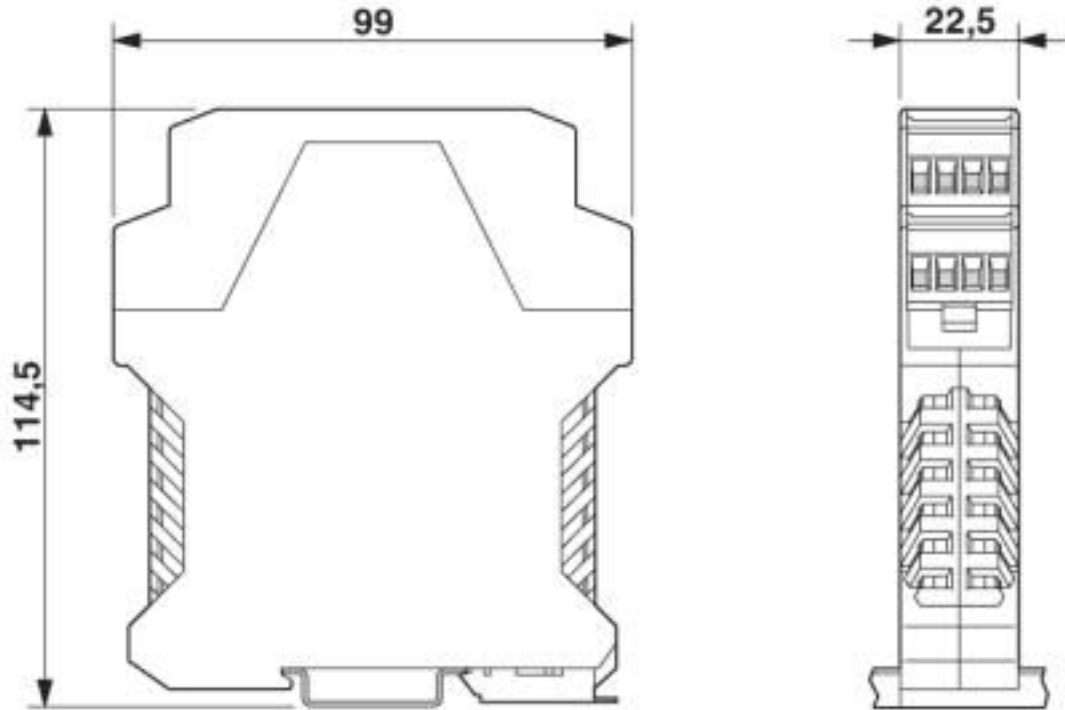
Current transducers - MCR-S-1/5-UI-DCI-NC - 2814715

Dimensional drawing

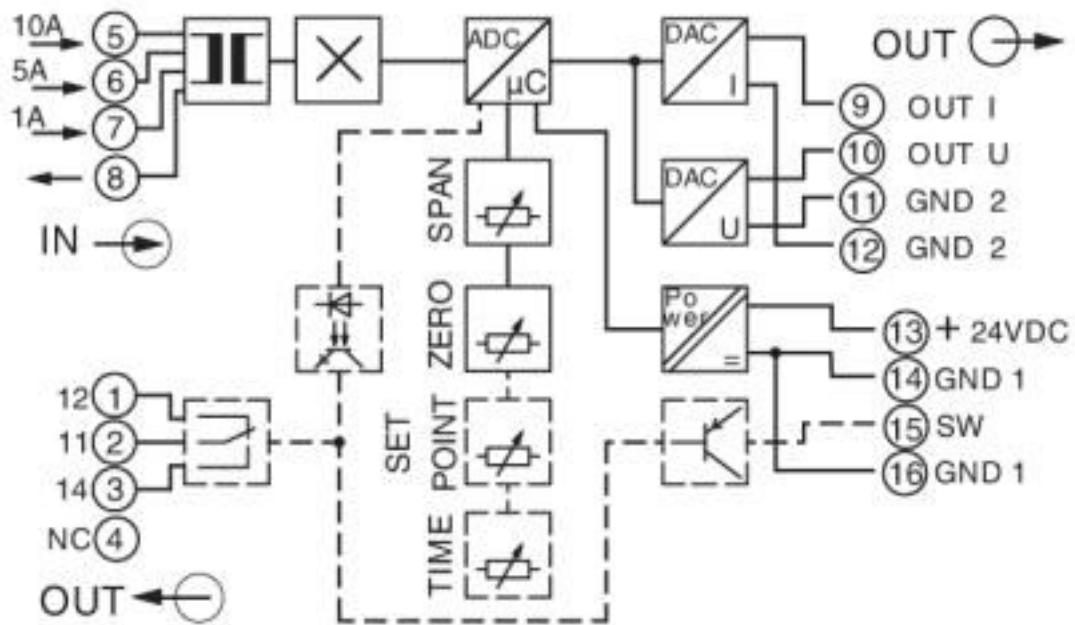


Current transducers - MCR-S-1/5-UI-DCI-NC - 2814715

Dimensional drawing



Circuit diagram



Current transducers - MCR-S-1/5-UI-DCI-NC - 2814715

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 4.0 | 27271100 |
| eCl@ss 4.1 | 27200300 |
| eCl@ss 5.0 | 27200300 |
| eCl@ss 5.1 | 27200300 |
| eCl@ss 6.0 | 27210100 |
| eCl@ss 7.0 | 27210123 |
| eCl@ss 8.0 | 27210123 |
| eCl@ss 9.0 | 27210123 |

ETIM

| | |
|----------|----------|
| ETIM 3.0 | EC002475 |
| ETIM 4.0 | EC002475 |
| ETIM 5.0 | EC002475 |
| ETIM 6.0 | EC002475 |
| ETIM 7.0 | EC002475 |

UNSPSC

| | |
|---------------|----------|
| UNSPSC 6.01 | 30211506 |
| UNSPSC 7.0901 | 39121008 |
| UNSPSC 11 | 39121008 |
| UNSPSC 12.01 | 39121008 |
| UNSPSC 13.2 | 39121032 |
| UNSPSC 18.0 | 39121032 |
| UNSPSC 19.0 | 39121032 |
| UNSPSC 20.0 | 39121032 |
| UNSPSC 21.0 | 39121032 |

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / cULus Listed

Current transducers - MCR-S-1/5-UI-DCI-NC - 2814715

Approvals

Approval details

| | | | |
|---------------|--|---|---------------|
| 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 | | | |
|------------------|--|--|--|

Accessories

Accessories

Arrester test system

Cable - CM-KBL-RS232/USB - 2881078



Connecting cable D-9-SUB to USB, with adapter D-9-SUB to D-25-SUB.

Programming adapter

Adapter cable - MCR-TTL-RS232-E - 2814388



Software adapter cable (Stereo jack connector/D-SUB 25-pos.), 1.2 m length, for programming MCR-T-..., MCR-S-... and MCR-f-... modules

