

## 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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#### 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 <sub>N</sub> (continuous)                 |
| Surge strength                       | 20 x I <sub>N</sub> (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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## Technical data

### Connection data

|                                       |                     |
|---------------------------------------|---------------------|
| Conductor cross section solid min.    | 0.2 mm <sup>2</sup> |
| Conductor cross section solid max.    | 2.5 mm <sup>2</sup> |
| Conductor cross section AWG min.      | 24                  |
| Conductor cross section AWG max.      | 14                  |
| Conductor cross section flexible min. | 0.2 mm <sup>2</sup> |
| Conductor cross section flexible max. | 2.5 mm <sup>2</sup> |
| 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

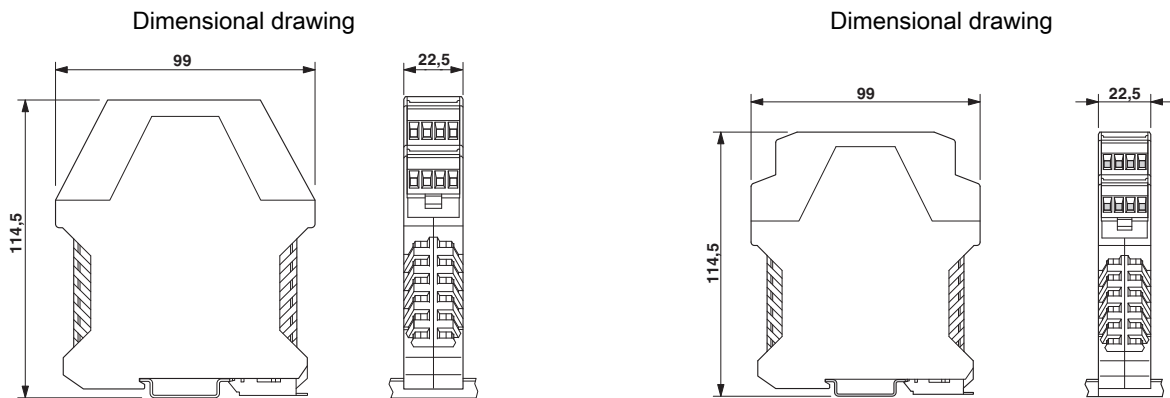
# Current transducers - MCR-S-1-5-UI-DCI - 2814634

## Technical data

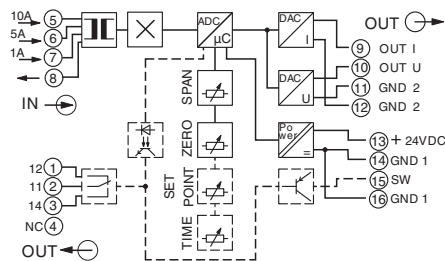
### Environmental Product Compliance

|            |   |
|------------|---|
| 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 |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 238705 |
|---------------|---|---|---------------|

|                |   |   |               |
|----------------|---|---|---------------|
| cUL Recognized |  | <a href="http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm">http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm</a> | FILE E 238705 |
|----------------|---|---|---------------|

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

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

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- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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