

# MCR-C-U-I- 4-DC - Signal conditioner



2814537

<https://www.phoenixcontact.com/us/products/2814537>

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MCR 3-way signal conditioner, for electrical isolation of analog signals, input signal: 0 V .. . 10 V, output signal: 4 mA ... 20 mA. Replacement part: 2902029 MINI MCR-2-U-I4.

The figure shows version MCR-C-I-I-00-DC

## Your advantages

- Processing of standard signals
- 3-way isolation
- Fixed setting of input and output signals

## Commercial data

|                                      |                                |
|--------------------------------------|--------------------------------|
| Item number                          | 2814537                        |
| Packing unit                         | 1 pc                           |
| Note                                 | Made to order (non-returnable) |
| Sales key                            | C401                           |
| Product key                          | DK1XXX                         |
| GTIN                                 | 4017918156220                  |
| Weight per piece (including packing) | 80.75 g                        |
| Weight per piece (excluding packing) | 74.78 g                        |
| Customs tariff number                | 85437090                       |
| Country of origin                    | DE                             |

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## Technical data

### Product properties

|                 |                    |
|-----------------|--------------------|
| Product type    | Signal conditioner |
| No. of channels | 1                  |

### Electrical properties

|   |                          |
|---|--------------------------|
| Electrical isolation between input and output   | yes                      |
| Limit frequency (3 dB)                          | 30 Hz                    |
| Maximum power dissipation for nominal condition | 450 mW                   |
| Test voltage, input/output/supply               | 1.5 kV AC (50 Hz, 60 s)  |
| Protective circuit                              | Transient protection     |
| Step response (10-90%)                          | 11 ms                    |
| Maximum temperature coefficient                 | < 0.015 %/K              |
| Maximum transmission error                      | ≤ 0.3 % (of final value) |
| Transmission error, typical                     | < 0.2 % (of final value) |

### Supply

|                             |                        |
|-----------------------------|------------------------|
| Supply voltage range        | 20 V DC ... 30 V DC    |
| Typical current consumption | < 15 mA (without load) |

### Input data

#### Signal

|                                   |               |
|-----------------------------------|---------------|
| Description of the input          | Voltage input |
| Number of inputs                  | 1             |
| Configurable/programmable         | no            |
| Voltage input signal              | 0 V ... 10 V  |
| Max. voltage input signal         | 30 V          |
| Input resistance of voltage input | 100 kΩ        |

### Output data

#### Signal: Current output

|  |                |
|--|----------------|
| Number of outputs  | 1              |
| Configurable/programmable  | no             |
| Current output signal  | 4 mA ... 20 mA |
| Max. current output signal   | 30 mA          |
| Load/output load current output  | ≤ 500 Ω        |
| Linear transmission range (in reference to the output range end value) | -5 % ... 105 % |

### Connection data

|                   |                            |
|-------------------|----------------------------|
| Connection method | Pluggable screw connection |
| Stripping length  | 8 mm                       |

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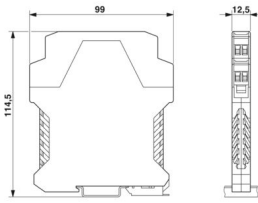
|                                  |   |
|----------------------------------|---|
| Screw thread                     | M3  |
| Conductor cross-section rigid    | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section flexible | 0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> |
| Conductor cross-section AWG      | 24 ... 14                                   |

## Interfaces

### Data communication (bypass)

|                        |       |
|------------------------|-------|
| Limit frequency (3 dB) | 30 Hz |
|------------------------|-------|

## Dimensions

|                     |   |
|---------------------|---|
| Dimensional drawing |  |
| Width               | 12.5 mm   |
| Height              | 99 mm   |
| Depth               | 114.5 mm  |

## Material specifications

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

## Environmental and real-life conditions

### Ambient conditions

|                                 |                  |
|---------------------------------|------------------|
| Ambient temperature (operation) | -25 °C ... 60 °C |
|---------------------------------|------------------|

## Approvals

### CE

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

## Mounting

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



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## Classifications

### UNSPSC

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

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## Environmental product compliance

### EU RoHS

|   |                    |
|---|--------------------|
| Fulfills EU RoHS substance requirements | Yes                |
| Exemption                               | 6(c), 7(a), 7(c)-I |

### China RoHS

|  |   |
|--|---|
| Environment friendly use period (EFUP) | EFUP-50   |
|  | 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.) | Lead(CAS: 7439-92-1) |
|-------------------------------------|----------------------|

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