

## Loop-powered isolators - MCR-1CLP-I-I-00 - 2814016

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 passive isolator, for the electrical isolation of current signals without auxiliary power, 1-channel, input signal: 0(4)...20 mA, output signal: 0(4)...20 mA

### Your advantages

- 1, 2 or 4-channel version as an option
- Electrical isolation without additional auxiliary voltage
- 0/4 ... 20 mA current signals



### Key Commercial Data

|                                      |   |
|--------------------------------------|---|
| Packing unit                         | 1 pc  |
| GTIN                                 | <br>4 017918 131722 |
| GTIN                                 | 4017918131722   |
| Weight per Piece (excluding packing) | 100.000 g   |
| Custom tariff number                 | 85437090  |
| Country of origin                    | Germany   |

### Technical data

#### Dimensions

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

#### Ambient conditions

|                                 |                  |
|---------------------------------|------------------|
| Ambient temperature (operation) | -10 °C ... 70 °C |
|---------------------------------|------------------|

#### Input data

## Loop-powered isolators - MCR-1CLP-I-I-00 - 2814016

### Technical data

#### Input data

|                           |                         |
|---------------------------|-------------------------|
| Description of the input  | Current input           |
| Number of inputs          | 1                       |
| Configurable/programmable | no                      |
| Current input signal      | 0 mA ... 20 mA          |
|                           | 4 mA ... 20 mA          |
| max. input voltage        | 30 V (30 V overload)    |
| Max. input current        | 50 mA (100 mA overload) |
| Response current          | < 50 $\mu$ A            |
| Input voltage limitation  | 33 V (with Zener diode) |
| Voltage dissipation       | 2.5 V (I = 20 mA)       |

#### Output data

|                                 |   |
|---------------------------------|---|
| Output name                     | Current output                                    |
| Number of outputs               | 1   |
| Configurable/programmable       | no  |
| Current output signal           | 0 mA ... 20 mA                                    |
|                                 | 4 mA ... 20 mA                                    |
| Max. output current             | < 50 mA   |
| Load/output load current output | $\leq$ 1375 $\Omega$ (at I = 20 mA output signal) |
| Ripple                          | < 5 mV (rms)                                      |
| Transmission Behavior           | 1:1 to input signal                               |

#### Power supply

|                      |                                      |
|----------------------|--------------------------------------|
| Supply voltage range | no separate supply voltage necessary |
|----------------------|--------------------------------------|

#### General

|                                  |  |
|----------------------------------|--|
| No. of channels                  | 1  |
| Maximum transmission error       | $\leq$ 0.1 % (of final value)                            |
| Maximum temperature coefficient  | $\leq$ 0.002 %/K (of measured value / 100 $\Omega$ load) |
| Additional error, load-dependent | 0.02 % (of measured value)                               |
| Limit frequency (3 dB)           | < 75 Hz  |
| Step response (10-90%)           | 5 ms (with 500 $\Omega$ load)                            |
| Test voltage input/output        | 510 V (50 Hz, 1 min.)                                    |
| Color                            | green  |
| Housing material                 | Polyamide PA non-reinforced                              |
| Mounting position                | any  |
| Conformance                      | CE-compliant   |
| UL, USA/Canada                   | cULus  |

## Loop-powered isolators - MCR-1CLP-I-I-00 - 2814016

### Technical data

#### Standards and Regulations

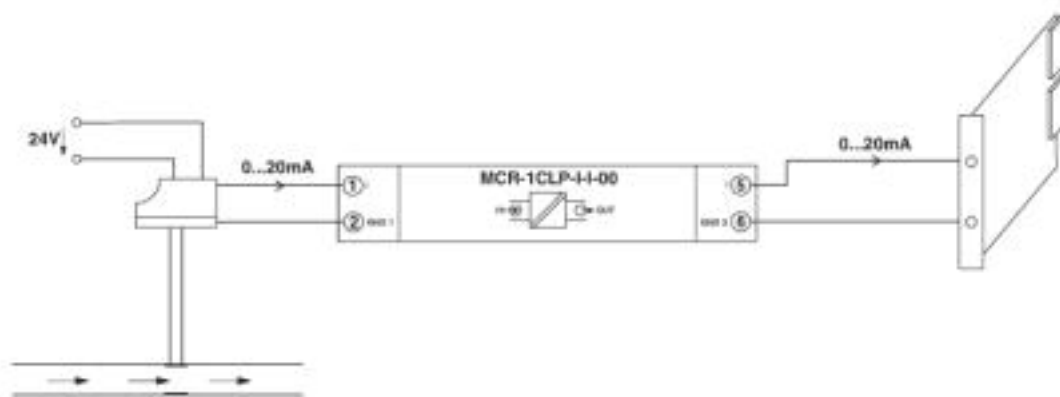
|                                  |              |
|----------------------------------|--------------|
| Connection in acc. with standard | CUL          |
| Conformance                      | CE-compliant |
| UL, USA/Canada                   | cULus        |

#### Environmental Product Compliance

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

### Drawings

#### Application drawing



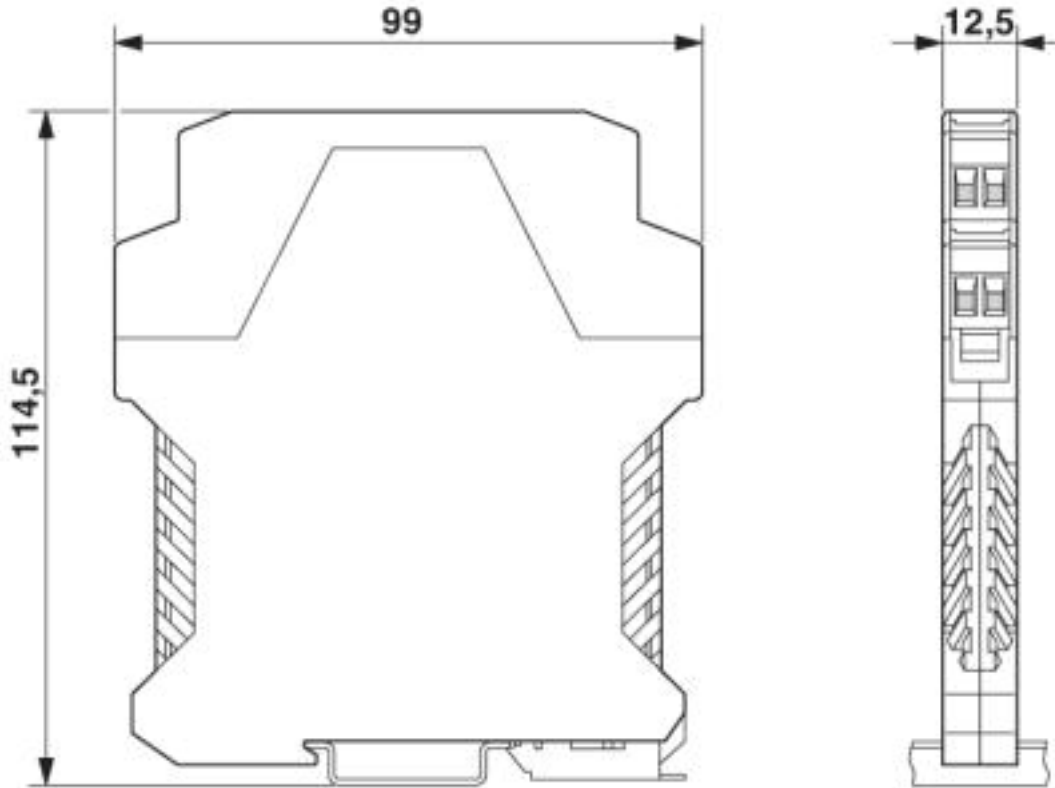
Application example: - flow measurement

1 = magnetic inductive flow gauge

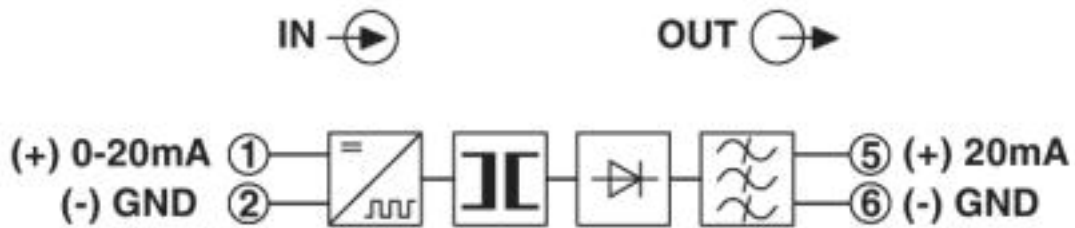
2 = control

# Loop-powered isolators - MCR-1CLP-I-I-00 - 2814016

Dimensional drawing



Circuit diagram



## Classifications

eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27210120 |
| eCl@ss 4.1 | 27210120 |
| eCl@ss 5.0 | 27210120 |
| eCl@ss 5.1 | 27210100 |
| eCl@ss 6.0 | 27210100 |

<https://www.phoenixcontact.com/us/products/2814016>

## Loop-powered isolators - MCR-1CLP-I-I-00 - 2814016

### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 7.0 | 27210120 |
| eCl@ss 8.0 | 27210120 |
| eCl@ss 9.0 | 27210120 |

#### ETIM

|          |          |
|----------|----------|
| ETIM 4.0 | EC002653 |
| ETIM 5.0 | EC002653 |
| ETIM 6.0 | EC002653 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211506 |
| UNSPSC 7.0901 | 39121008 |
| UNSPSC 11     | 39121008 |
| UNSPSC 12.01  | 39121008 |
| UNSPSC 13.2   | 39121008 |

Phoenix Contact 2019 © - all rights reserved  
<http://www.phoenixcontact.com>



# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

Est.1899

At Scattergood & Johnson Ltd, we pride ourselves on being a technical distributor to specialist industries.

Working with a range of quality product suppliers across a number of specialist markets, we are not your average 'box shifter' - we are your technical and supply chain partner.

We fully support every product we sell - for free! Our internal team and external sales engineers can answer any product or application question, no matter the complexity.

Backing up this technical ability is a range of 50,000+ products available from stock for nationwide next day delivery (same day if required!), or you can collect what you need from any of our trade counters around the UK.

Select your specialist interest below to learn more about how we can help.



Online, In Branch and On the Road - Scattergood & Johnson Ltd, there when you need us.

# [www.scatts.co.uk](http://www.scatts.co.uk)