

# Loop-powered isolators - MCR-4CLP-I-I-00

2814045

<https://www.phoenixcontact.com/pc/products/2814045>

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 documentation. Our General Terms of Use for Downloads are valid.

---



MCR passive isolator, for the electrical isolation of current signals without auxiliary power, 4-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

# Loop-powered isolators - MCR-4CLP-I-I-00



2814045

<https://www.phoenixcontact.com/pc/products/2814045>

## Commercial Data

Item number	2814045
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Product Key	CK1813
Catalog Page	Page 135 (C-7-2013)
GTIN	4017918131708
Weight per Piece (including packing)	146.8 g
Weight per Piece (excluding packing)	146.8 g
Customs tariff number	85437090
Country of origin	DE

# Loop-powered isolators - MCR-4CLP-I-I-00



2814045

<https://www.phoenixcontact.com/pc/products/2814045>

## Technical Data

### Product properties

Product type	Passive isolators
No. of channels	4

### Electrical properties

No. of channels	4
Electrical isolation between input and output	yes
Limit frequency (3 dB)	< 75 Hz
Maximum power dissipation for nominal condition	200 mW
Test voltage input/output	510 V AC (50 Hz, 60 s)
Step response (10-90%)	5 ms (with 500 $\Omega$ load)
Maximum temperature coefficient	$\leq 0.002$ %/K (of measured value / 100 $\Omega$ load)
Maximum transmission error	$\leq 0.1$ % (of final value)
Additional error, load-dependent	0.02 % (of measured value)

### Supply

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

### Input data

#### Signal

Description of the input	Current input
Number of inputs	4
Configurable/programmable	no
Max. voltage input signal	30 V (30 V overload)
Current input signal	0 mA ... 20 mA 4 mA ... 20 mA
Max. current input signal	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

#### Signal:

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

# Loop-powered isolators - MCR-4CLP-I-I-00

2814045

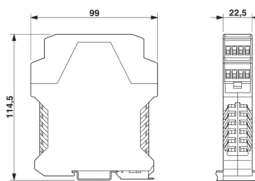
<https://www.phoenixcontact.com/pc/products/2814045>

Ripple	< 5 mV (rms)
--------	--------------

## Connection data

Connection method	Pluggable screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section solid	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

## Dimensions

Dimensional drawing	
Width	22.5 mm
Height	99 mm
Depth	114.5 mm

## Material specifications

Housing material	Polyamide PA non-reinforced
------------------	-----------------------------

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-10 °C ... 70 °C

## Approval data

### CE

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

### CE

Identification	cULus
----------------	-------

## Mounting

Mounting type	DIN rail mounting
Mounting position	any

# Loop-powered isolators - MCR-4CLP-I-I-00

2814045

<https://www.phoenixcontact.com/pc/products/2814045>

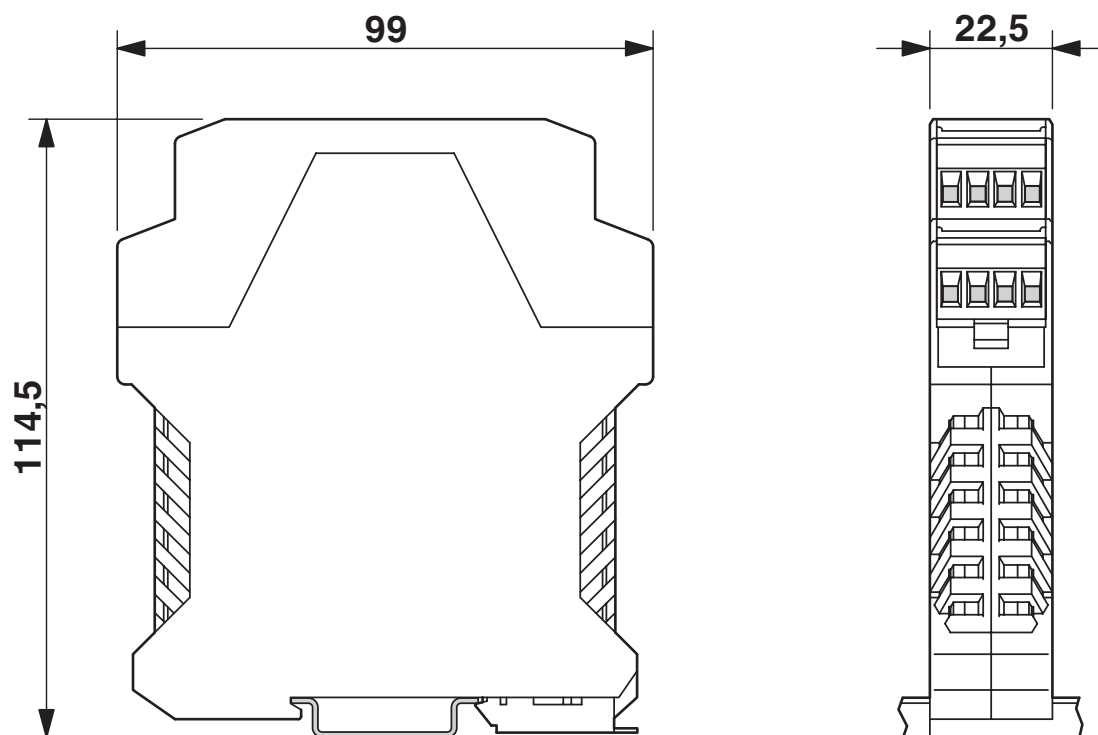


## Drawings

Diagram



Dimensional drawing

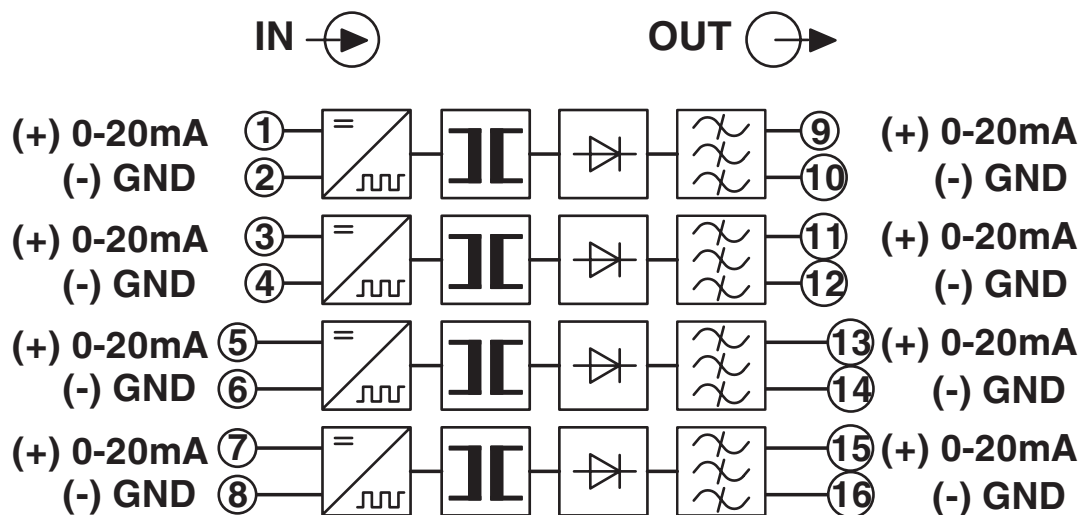


# Loop-powered isolators - MCR-4CLP-I-I-00

2814045

<https://www.phoenixcontact.com/pc/products/2814045>

Circuit diagram



# Loop-powered isolators - MCR-4CLP-I-I-00



2814045

<https://www.phoenixcontact.com/pc/products/2814045>

## Classifications

### ECLASS

ECLASS-9.0	27210120
ECLASS-10.0.1	27210120

# Loop-powered isolators - MCR-4CLP-I-I-00



2814045

<https://www.phoenixcontact.com/pc/products/2814045>

## Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"
------------	--

Phoenix Contact 2022 © - all rights reserved  
<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG  
Flachsmarktstraße 8  
D-32825 Blomberg  
+49 (0) 5235-3 00  
[info@phoenixcontact.com](mailto:info@phoenixcontact.com)