MCR-SL-1CLP-I-I-00-4KV - Input isolator

2814841

https://www.phoenixcontact.com/us/products/2814841

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

Your advantages

- 0/4 ... 20 mA current signals
- Electrical isolation without additional auxiliary voltage
- Safe isolation

Commercial data

Item number	2814841
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C401
Product key	DK1XXX
GTIN	4017918190804
Weight per piece (including packing)	103 g
Weight per piece (excluding packing)	100 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Product properties

Product type	Passive separator
No. of channels	1

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

Electrical isolation between input and output	yes
Limit frequency (3 dB)	< 75 Hz (at I = 20 mA and maximum load)
Maximum power dissipation for nominal condition	50 mW
Test voltage input/output	4 kV AC (50 Hz, 60 s)
Signal transmission behavior	In = Out
Step response (10-90%)	5 ms (with 500 Ω load)
Maximum temperature coefficient	≤ 0.002 %/K (of measured value / 100 Ω load)
Maximum transmission error	≤ 0.1 % (of final value)
Additional error, load-dependent	0.02 % (of measured value / 100 Ω load)

Supply

Supply voltage range	no separate supply voltage necessary

Input data

Signal

Description of the input	Current input
Number of inputs	1
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 µA
Input voltage limitation	33 V 5 % (with Zener diode)
Voltage dissipation	2.5 V (I = 20 mA)

Output data

Signal: Current

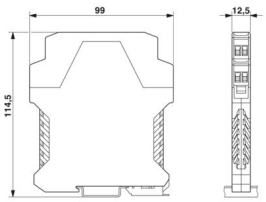
Number of outputs	1
Configurable/programmable	no
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA

Max. current output signal	< 50 mA
Load/output load current output	≤ 1375 Ω (at I = 20 mA output signal)
Ripple	< 5 mV (rms)

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²
Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 14

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

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

Approvals

CE

Certificate	CE-compliant

UL, USA/Canada

Identification	cULus

Standards and regulations

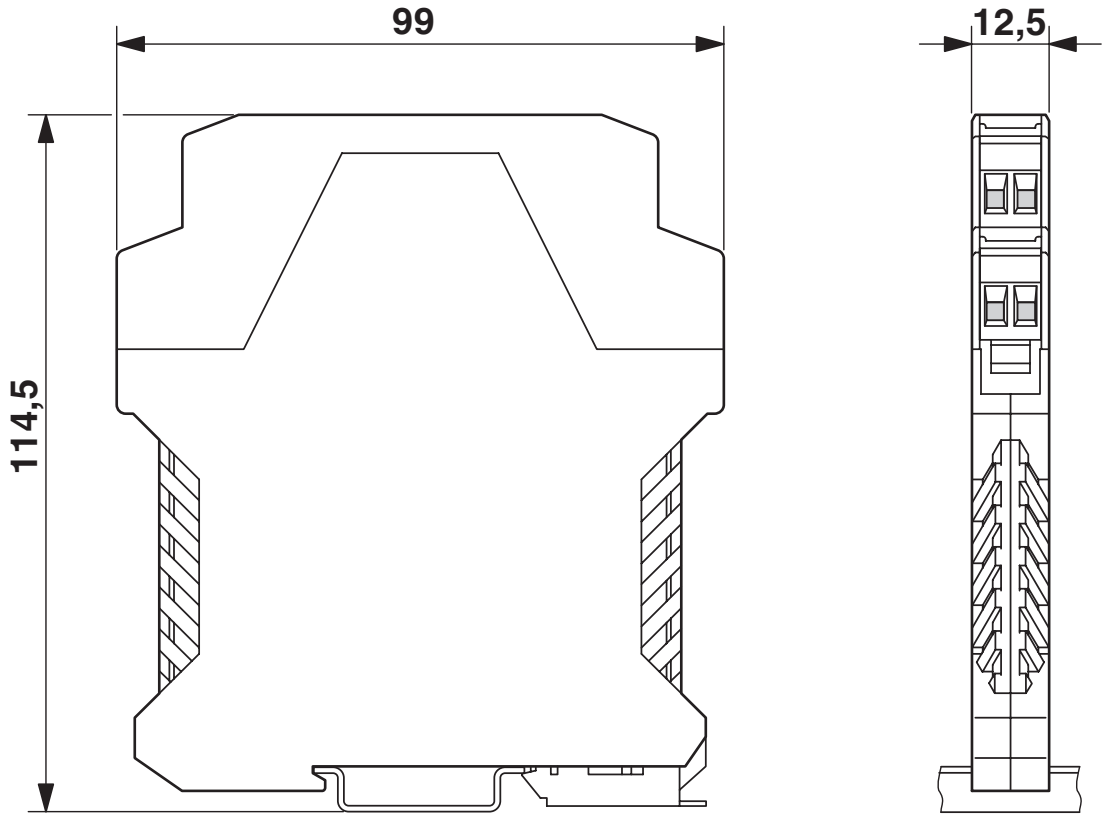
Standards/regulations	DIN EN 61010-1
	VDE 0100-410
	VDE 0106-101

Mounting

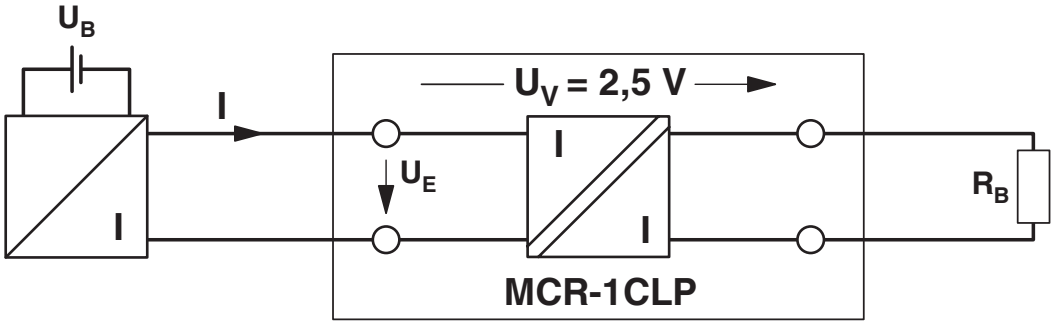
Mounting type	DIN rail mounting
Mounting position	any

Drawings

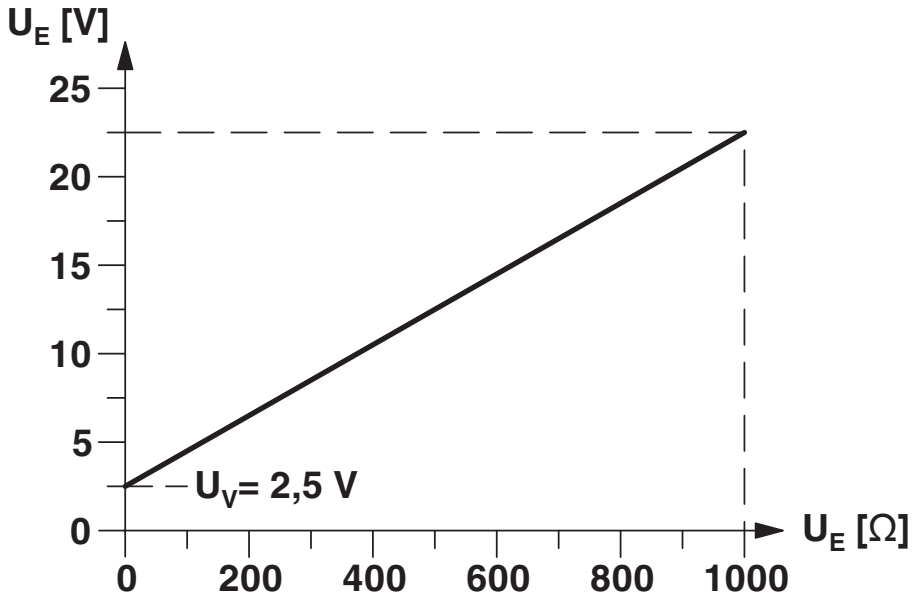
Dimensional drawing



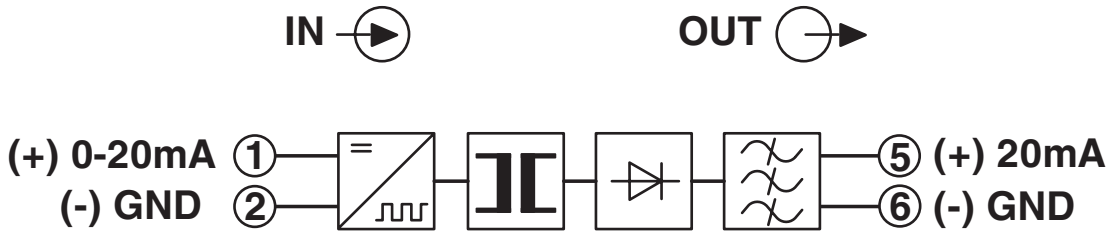
Application drawing



Diagram



Circuit diagram



Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes, No exemptions

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.)	No substance above 0.1 wt%

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