

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	CK1813
Catalog page	Page 134 (C-7-2013)
GTIN	4017918190804
Weight per piece (including packing)	103 g
Weight per piece (excluding packing)	100 g
Customs tariff number	85437090
Country of origin	DE

MCR-SL-1CLP-I-I-00-4KV - Passive separator



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Technical data

Product properties

Product type	Passive isolators
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
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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 μ A
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

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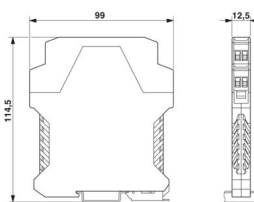
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Max. current output signal	< 50 mA
Load/output load current output	$\leq 1375 \Omega$ (at I = 20 mA output signal)
Ripple	< 5 mV (rms)

Connection data

Connection method	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
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

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Mounting

Mounting type	DIN rail mounting
Mounting position	any

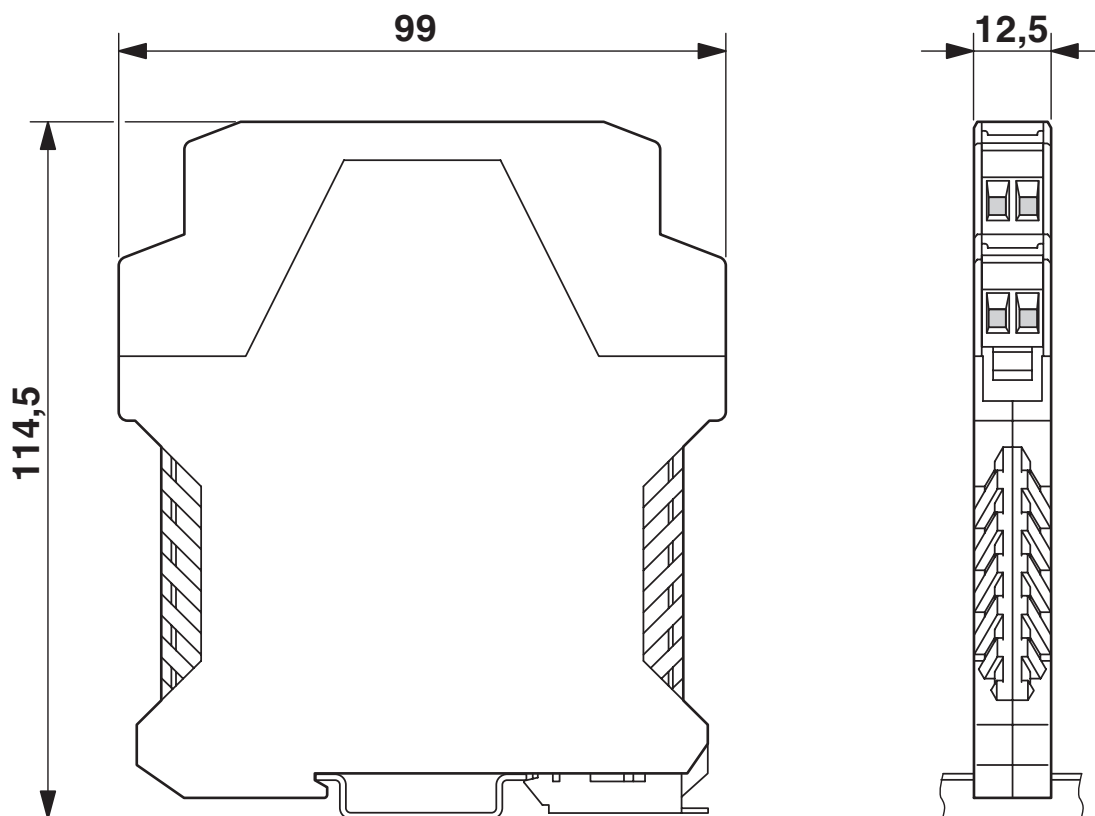
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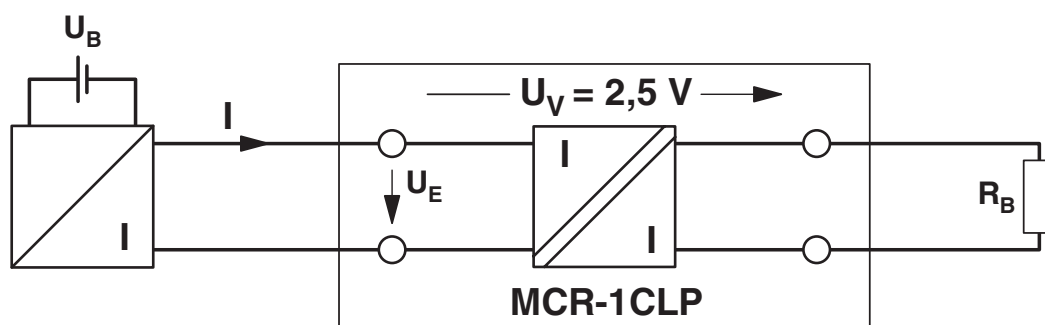
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Drawings

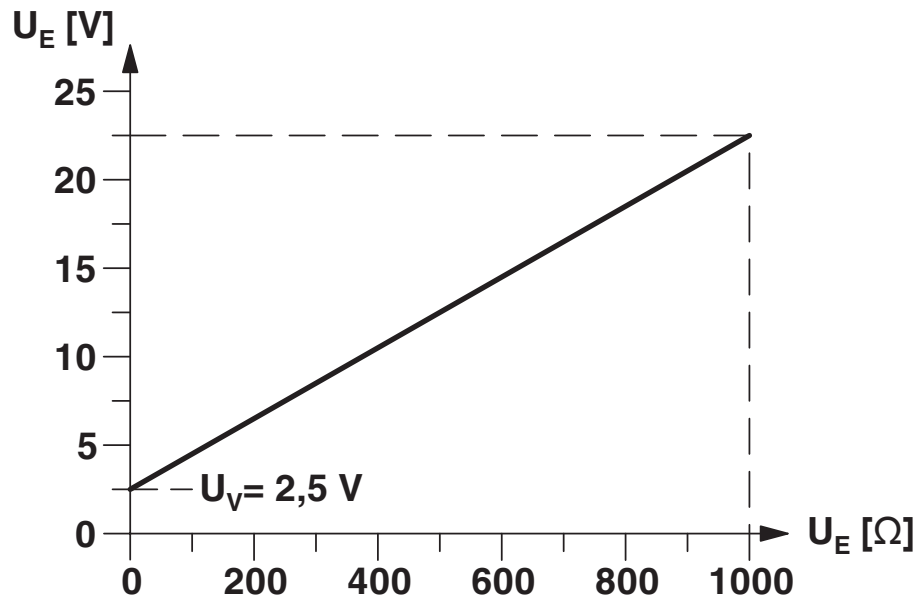
Dimensional drawing



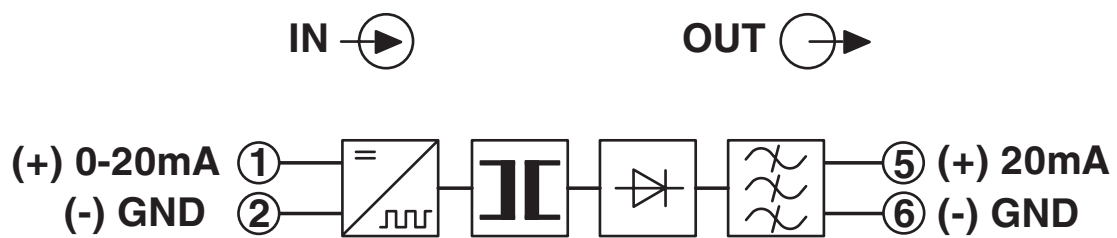
Application drawing



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%