

Signal conditioner - MINI MCR-SL-U-I-0 - 2813512

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://download.phoenixcontact.com>)



MCR 3-way isolating amplifier, for electrical isolation of analog signals, with screw connection, input signal: 0 V ... 10 V, output signal: 0 mA ... 20 mA

Product Description

The 6.2 mm wide standard signal 3-way isolating amplifier MINI MCR-SL-U-I-... is used for electrical isolation, conversion, amplification and filtering of standard signals. On the input side, 0...10 V are measured, and made available at the module output as a galvanically isolated 0...20 mA, or 4...20 mA signal. Power (19.2 V DC to 30 V DC) can be supplied through connection terminal blocks on the modules or in conjunction with the DIN rail connector.

Product Features

- Power supply possible via the foot element (T-connector)
- Low power consumption
- Entry-level alternative to configurable signal conditioners
- Highly-compact isolating amplifier for electrical isolation, conversion, amplification, and filtering of standard analog signals
- 3-way isolation
- Fixed signal combinations



Key commercial data

package_quantity	1
GTIN	4046356100656

Technical data

Note:

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
--------------------------------	---

Dimensions

Width	6.2 mm
Height	93.1 mm
Depth	102.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

Signal conditioner - MINI MCR-SL-U-I-0 - 2813512

Technical data

Input data

Configurable/programmable	No
Voltage input signal	0 V ... 10 V
Max. input voltage	30 V
Input resistance of voltage input	approx. 100 kΩ

Output data

Configurable/programmable	No
Current output signal	0 mA ... 20 mA
Max. output current	28 mA
Load/output load current output	≤ 500 Ω

Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (The T connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, Order No. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715))
Max. current consumption	< 20 mA
Power consumption	< 480 mW

Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12
Stripping length	12 mm
Screw thread	M3

General

Maximum transmission error	≤ 0.1 % (of final value)
Maximum temperature coefficient	< 0.01 %/K
Temperature coefficient, typical	< 0.002 %/K
Limit frequency (3 dB)	approx. 100 Hz
Step response (10-90%)	approx. 3.5 ms
Electrical isolation	Basic insulation according to EN 61010
Surge voltage category	II
Pollution degree	2
Rated insulation voltage	50 V AC/DC
Test voltage, input/output/supply	1.5 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4

Signal conditioner - MINI MCR-SL-U-I-0 - 2813512

Technical data

General

Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Color	green
Housing material	PBT
Mounting position	Any
Assembly instructions	The T connector can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715.
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	UL 508 Recognized
UL, USA / Canada	Class I, Div. 2, Groups A, B, C, D T5 applied for
GL	GL EMC 2 D

EMC data

Name	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	5 %
Name	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	5 %
Name	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	5 %

classifications

eCl@ss

eCl@ss 4.0	27210120
eCl@ss 4.1	27210120
eCl@ss 5.0	27210120
eCl@ss 5.1	27210120
eCl@ss 6.0	27210120
eCl@ss 7.0	27210120
eCl@ss 8.0	27210120

ETIM

ETIM 2.0	EC001485
ETIM 3.0	EC001485
ETIM 4.0	EC001485
ETIM 5.0	EC001485

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008

Signal conditioner - MINI MCR-SL-U-I-0 - 2813512

classifications

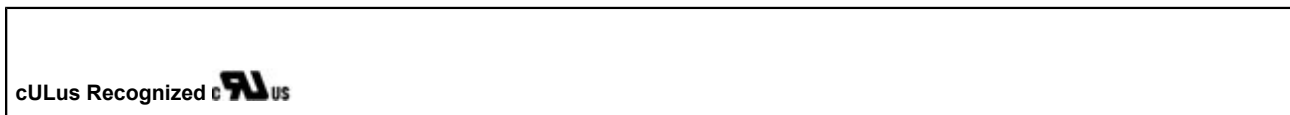
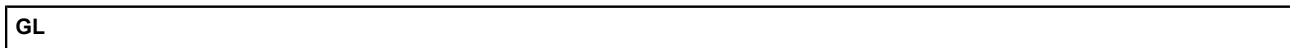
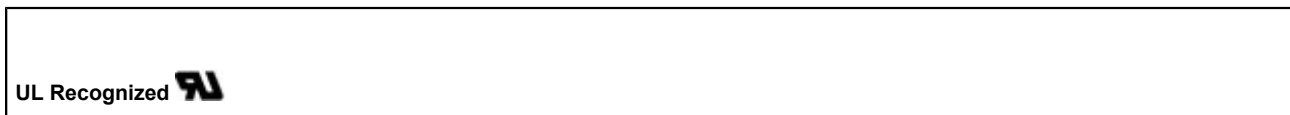
UNSPSC

UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

approvals

ATEX / UL Recognized / cUL Recognized / GL / cULus Recognized /

Approval details



accessories

DIN rail connector

ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - 2869728



Power module

Signal conditioner - MINI MCR-SL-U-I-0 - 2813512

accessories

MINI MCR-SL-PTB - 2864134



MINI MCR-SL-PTB-SP - 2864147



Power supply

MINI-SYS-PS-100-240AC/24DC/1.5 - 2866983



MINI-PS-100-240AC/24DC/1.5/EX - 2866653



System adapter

MINI MCR-SL-V8-FLK 16-A - 2811268



Marking material

Signal conditioner - MINI MCR-SL-U-I-0 - 2813512

accessories

MINI MCR DKL - 2308111

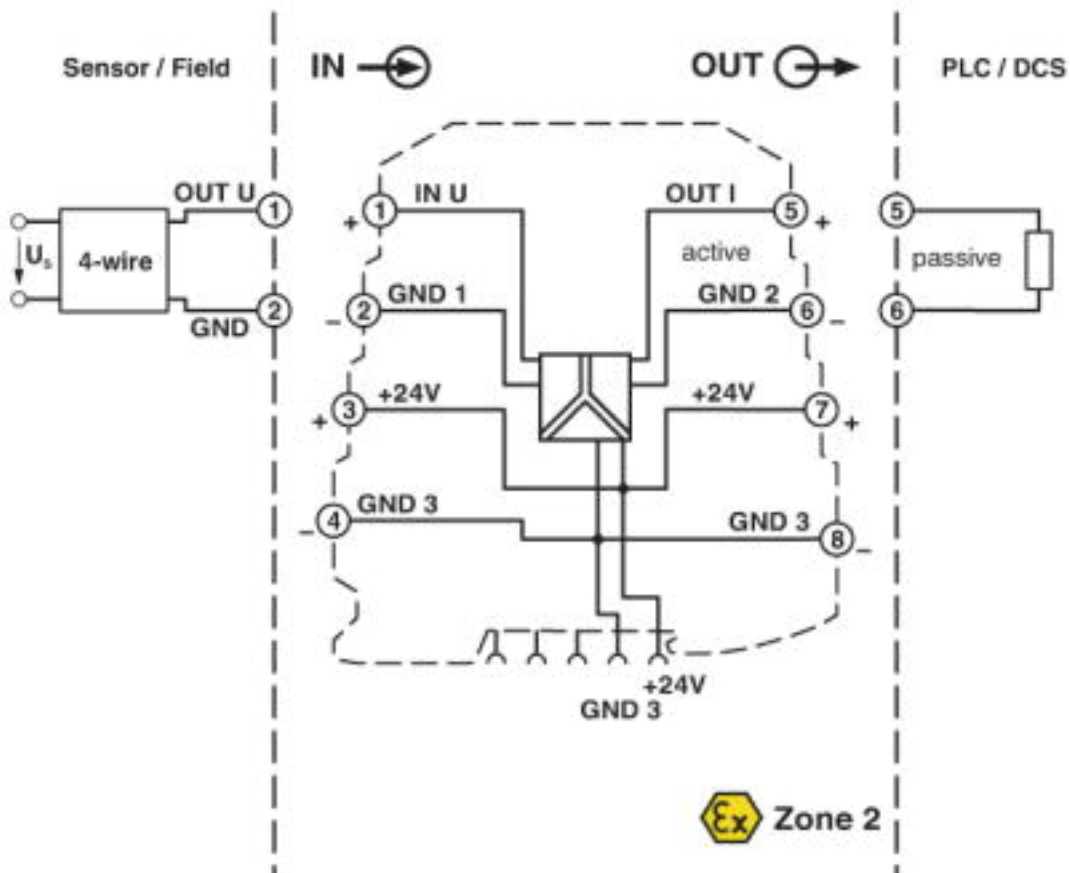


MINI MCR-DKL-LABEL - 2810272



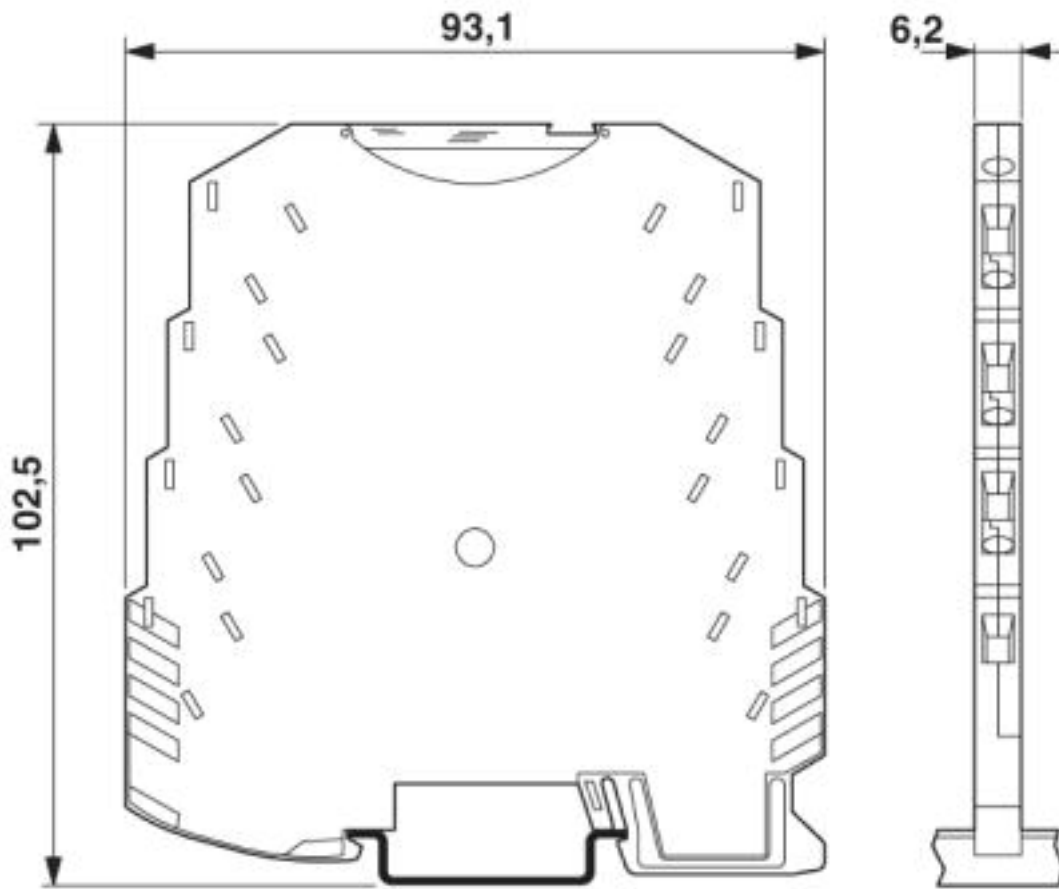
Drawings

Block diagram



Signal conditioner - MINI MCR-SL-U-I-0 - 2813512

Dimensioned drawing



© Phoenix Contact 2013 - all rights reserved
<http://www.phoenixcontact.com>