

# Signal conditioner - MINI MCR-SL-I-U-4 - 2813538

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MCR 3-way isolating amplifier, for electrical isolation of analog signals, with screw connection, input signal: 4 mA ... 20 mA, output signal: 0 A ... 10 V

## 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



**Ex n**

## Key commercial data

package_quantity	1
GTIN	4046356100632

## Technical data

Note:

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

## Input data

Configurable/programmable	No
Current input signal	4 mA ... 20 mA
Max. input current	50 mA

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## Technical data

### Input data

<b>Input resistance current input</b>	approx. 50 Ω
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### Output data

<b>Configurable/programmable</b>	No
<b>Voltage output signal</b>	0 V ... 10 V
<b>Max. output voltage</b>	12.5 V
<b>Short-circuit current</b>	approx. 2 mA
<b>Load/output load voltage output</b>	≥ 10 kΩ

### Power supply

<b>Nominal supply voltage</b>	24 V DC
<b>Supply voltage range</b>	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))
<b>Max. current consumption</b>	< 9 mA
<b>Power consumption</b>	< 200 mW

### Connection data

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

### General

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

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## Technical data

### General

<b>Housing material</b>	PBT
<b>Mounting position</b>	Any
<b>Assembly instructions</b>	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.
<b>Conformance</b>	CE-compliant
<b>ATEX</b>	# II 3 G Ex nA IIC T4 Gc X
<b>UL, USA / Canada</b>	UL 508 Recognized
<b>UL, USA / Canada</b>	Class I, Div. 2, Groups A, B, C, D T5 applied for
<b>GL</b>	GL EMC 2 D

### EMC data

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

## classifications

### eCl@ss

<b>eCl@ss 4.0</b>	27210120
<b>eCl@ss 4.1</b>	27210120
<b>eCl@ss 5.0</b>	27210120
<b>eCl@ss 5.1</b>	27210120
<b>eCl@ss 6.0</b>	27210120
<b>eCl@ss 7.0</b>	27210120
<b>eCl@ss 8.0</b>	27210120

### ETIM

<b>ETIM 2.0</b>	EC001485
<b>ETIM 3.0</b>	EC001485
<b>ETIM 4.0</b>	EC001485
<b>ETIM 5.0</b>	EC001485

### UNSPSC

<b>UNSPSC 6.01</b>	30211506
<b>UNSPSC 7.0901</b>	39121008
<b>UNSPSC 11</b>	39121008
<b>UNSPSC 12.01</b>	39121008
<b>UNSPSC 13.2</b>	39121008

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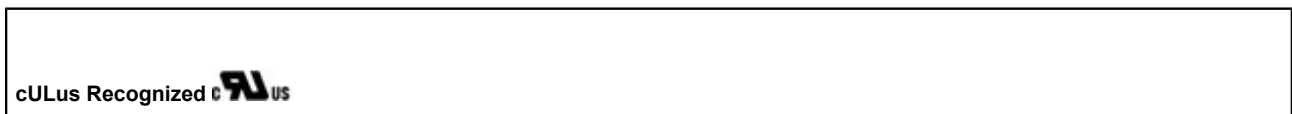
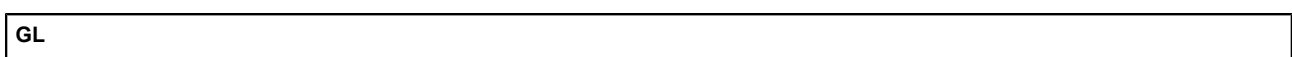
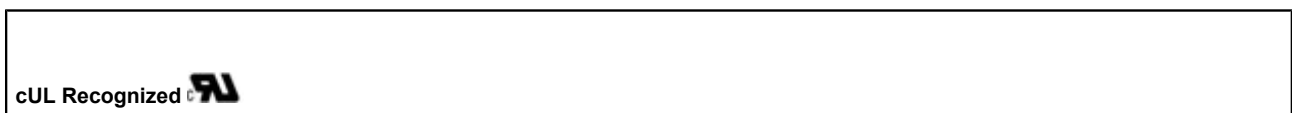
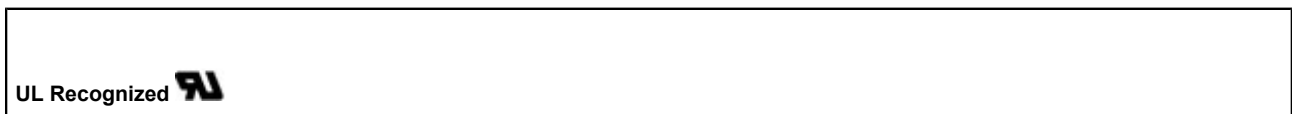
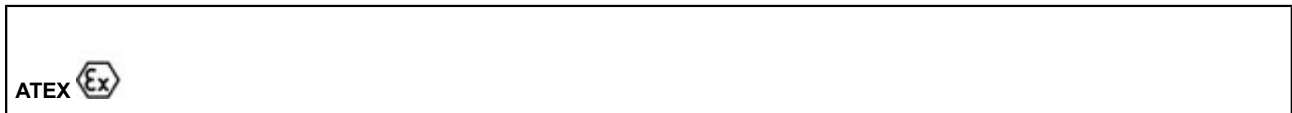
## approvals

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

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### Approval details



## accessories

### DIN rail connector

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



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### Power module

MINI MCR-SL-PTB - 2864134



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### accessories

MINI MCR-SL-PTB-SP - 2864147



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### Power supply

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



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



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### System adapter

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



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### Marking material

MINI MCR DKL - 2308111



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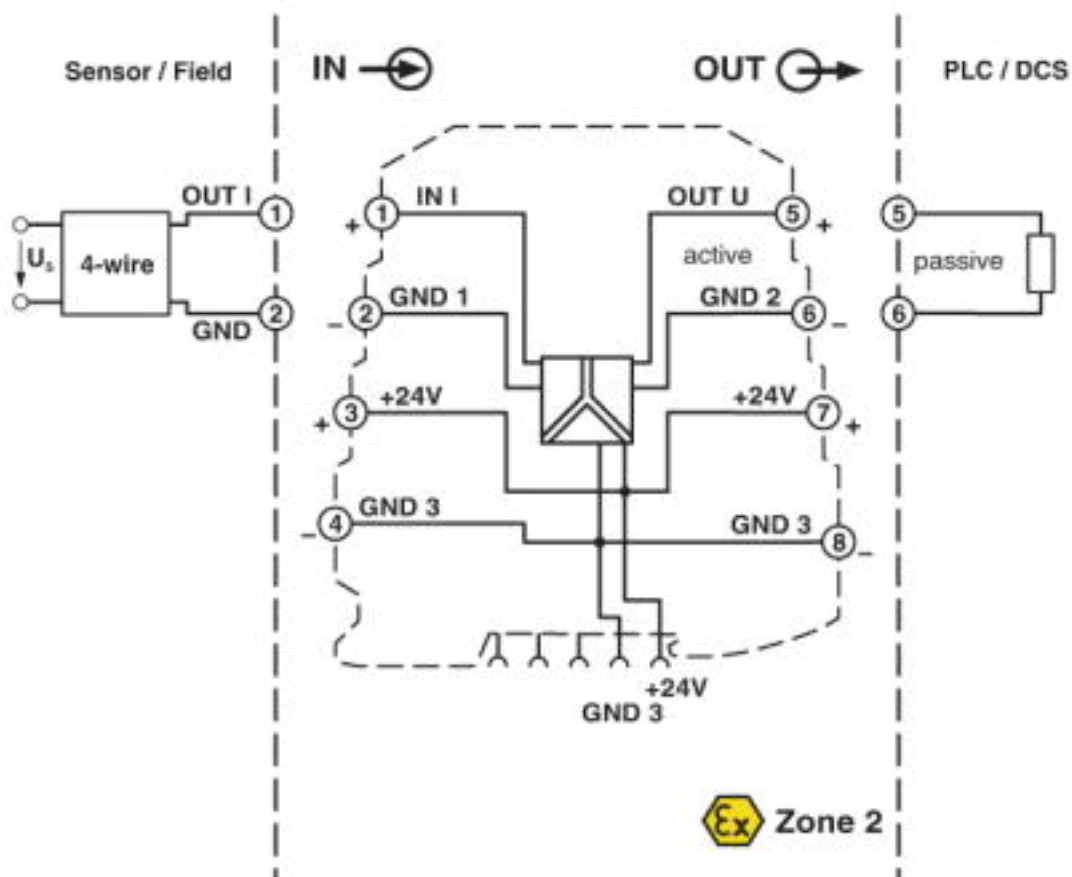
accessories

MINI MCR-DKL-LABEL - 2810272



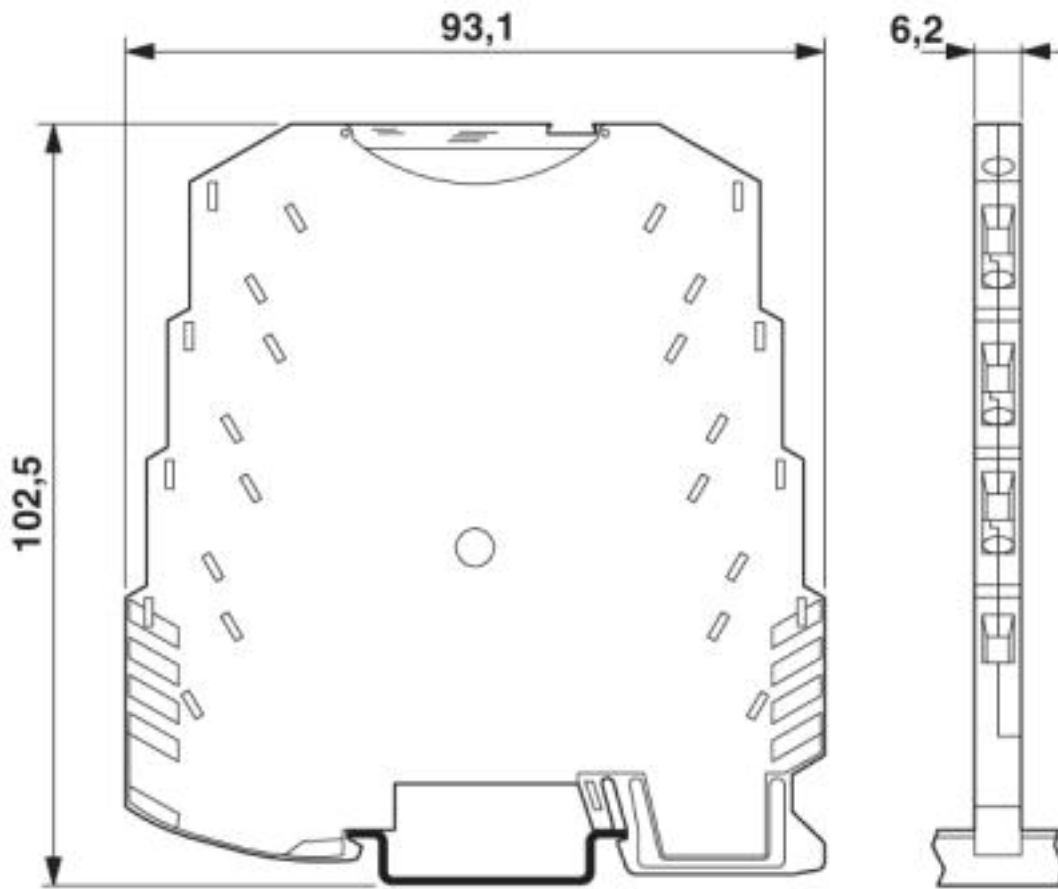
## Drawings

Block diagram



# Signal conditioner - MINI MCR-SL-I-U-4 - 2813538

Dimensioned drawing



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