

Signal conditioner - MINI MCR-SL-U-U - 2864684

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

Product Description

The 6.2 mm wide standard signal 3-way isolating amplifier MINI MCR-SL-U-U(-SP) is used for electrical isolation, amplification and filtering of standard signals. On the input and output side, the analog standard signals 0...10 V or ±10 V are available, electrically isolated. 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
- Fixed signal combinations
- Highly-compact isolating amplifier for electrical isolation, conversion, amplification, and filtering of standard analog signals
- 3-way isolation



Key commercial data

package_quantity	1
GTIN	4017918956387

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

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Technical data

Input data

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

Output data

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

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	< 240 mW (at 24 V DC)

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

No. of channels	1
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. 3.2 ms
Protective circuit	Transient protection
Electrical isolation	Basic insulation according to EN 61010
Surge voltage category	II
Pollution degree	2

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Technical data

General

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
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
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	15 %
Name	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	15 %
Name	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	15 %

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

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classifications

ETIM

ETIM 5.0	EC001485
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UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

approvals

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

Approval details

UL Listed	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

cUL Listed	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

ATEX

cULus Listed

UL Recognized

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approvals

Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

cUL Recognized	
Nominal voltage UN	
Nominal current IN	
mm ² /AWG/kcmil	

GL

cULus Recognized	
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accessories

DIN rail connector

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



Power module

MINI MCR-SL-PTB - 2864134



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accessories

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



Marking material

MINI MCR DKL - 2308111



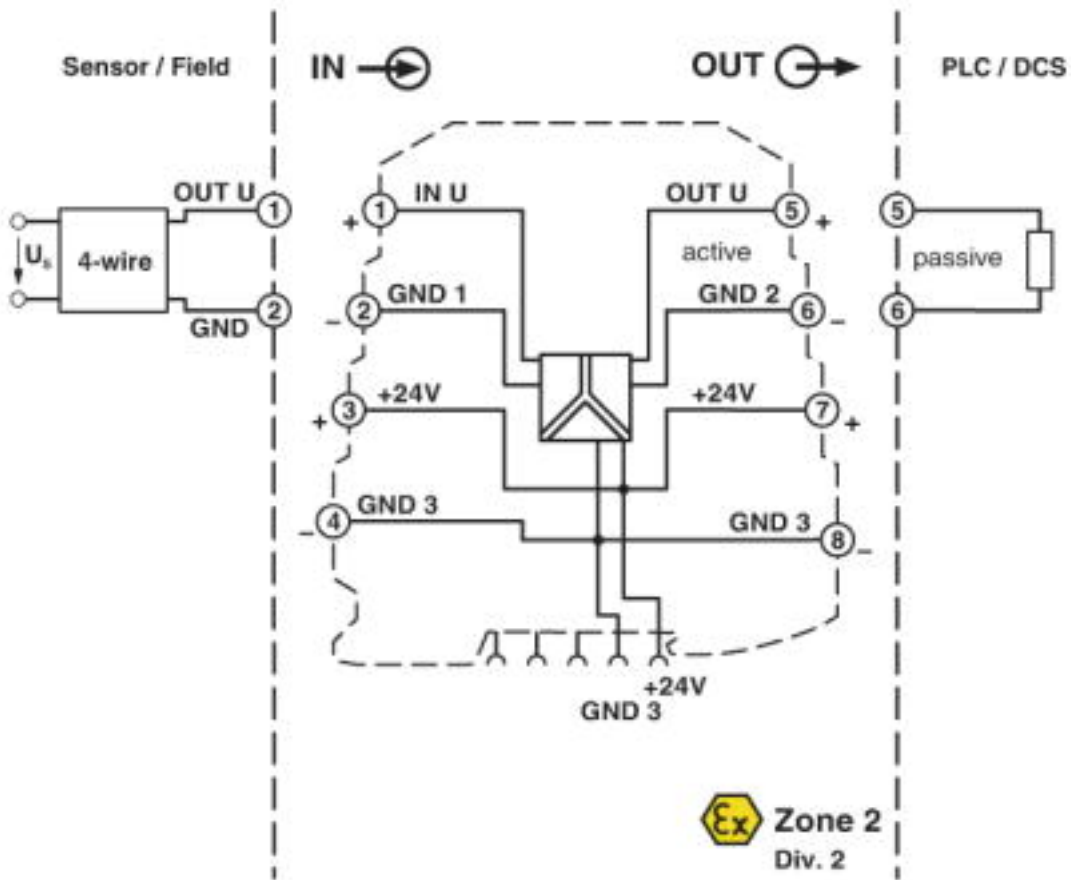
MINI MCR-DKL-LABEL - 2810272



Drawings

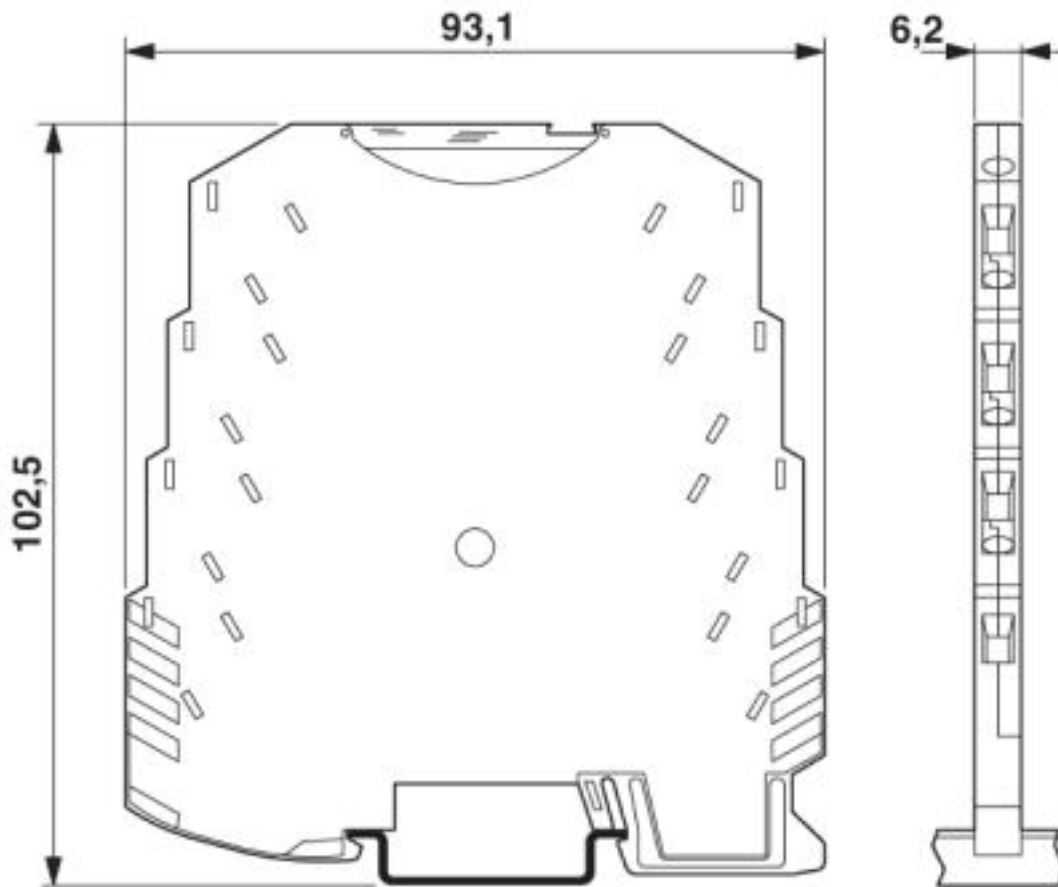
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Block diagram



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Dimensioned drawing



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