

Signal conditioner - MINI MCR-SL-I-I - 2864406

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

Product Description

The 6.2 mm wide standard signal 3-way isolating amplifier MINI MCR-SL-I-I(-SP) is used for electrical isolation, amplification and filtering of standard signals. On the input and output side, the analog standard signals 0...20 mA or 4...20 mA 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)
- Entry-level alternative to configurable signal conditioners
- Low power consumption
- 3-way isolation
- Highly-compact isolating amplifier for electrical isolation, conversion, amplification, and filtering of standard analog signals
- Fixed signal combinations



Key commercial data

package_quantity	1
GTIN	4017918956158

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
Current input signal	0 mA ... 20 mA
Current input signal	4 mA ... 20 mA
Max. input current	50 mA
Input resistance current input	approx. 50 Ω

Output data

Configurable/programmable	no
Current output signal	0 mA ... 20 mA
Current output signal	4 mA ... 20 mA
Max. output current	28 mA
Load/output load current output	< 500 Ω (at 20 mA)

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	< 450 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 AWG/kcmil min.	26
Conductor cross section AWG/kcmil max	12
Conductor cross section stranded min.	0.2 mm ²
Conductor cross section stranded max.	2.5 mm ²
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
Rated insulation voltage	50 V AC/DC

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Technical data

General

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

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	10 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	10 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	10 %

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

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classifications

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	
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cULus Listed	
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UL Recognized	
Nominal voltage UN	
Nominal current IN	

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approvals

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



MINI MCR-SL-PTB-SP - 2864147



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accessories

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



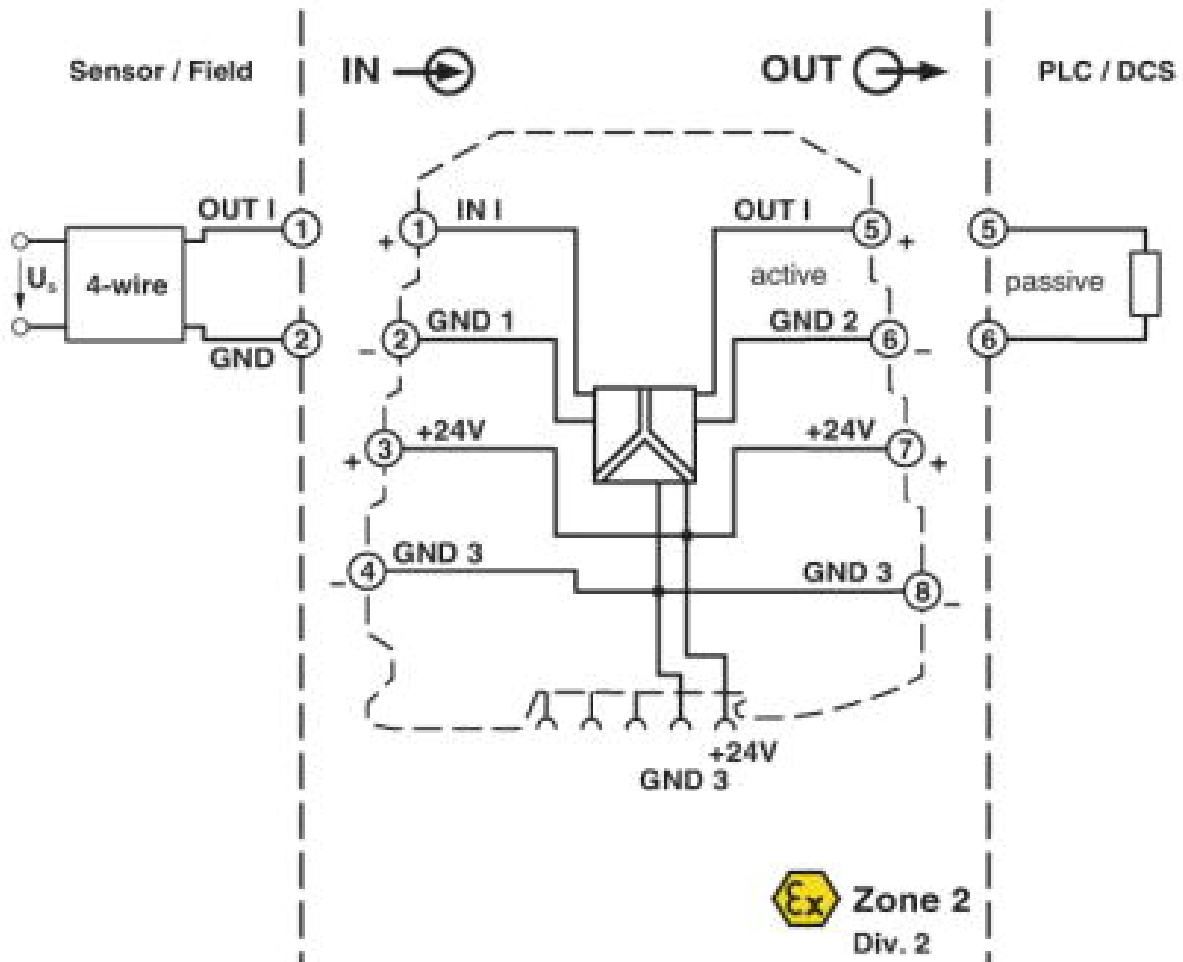
MINI MCR-DKL-LABEL - 2810272



Drawings

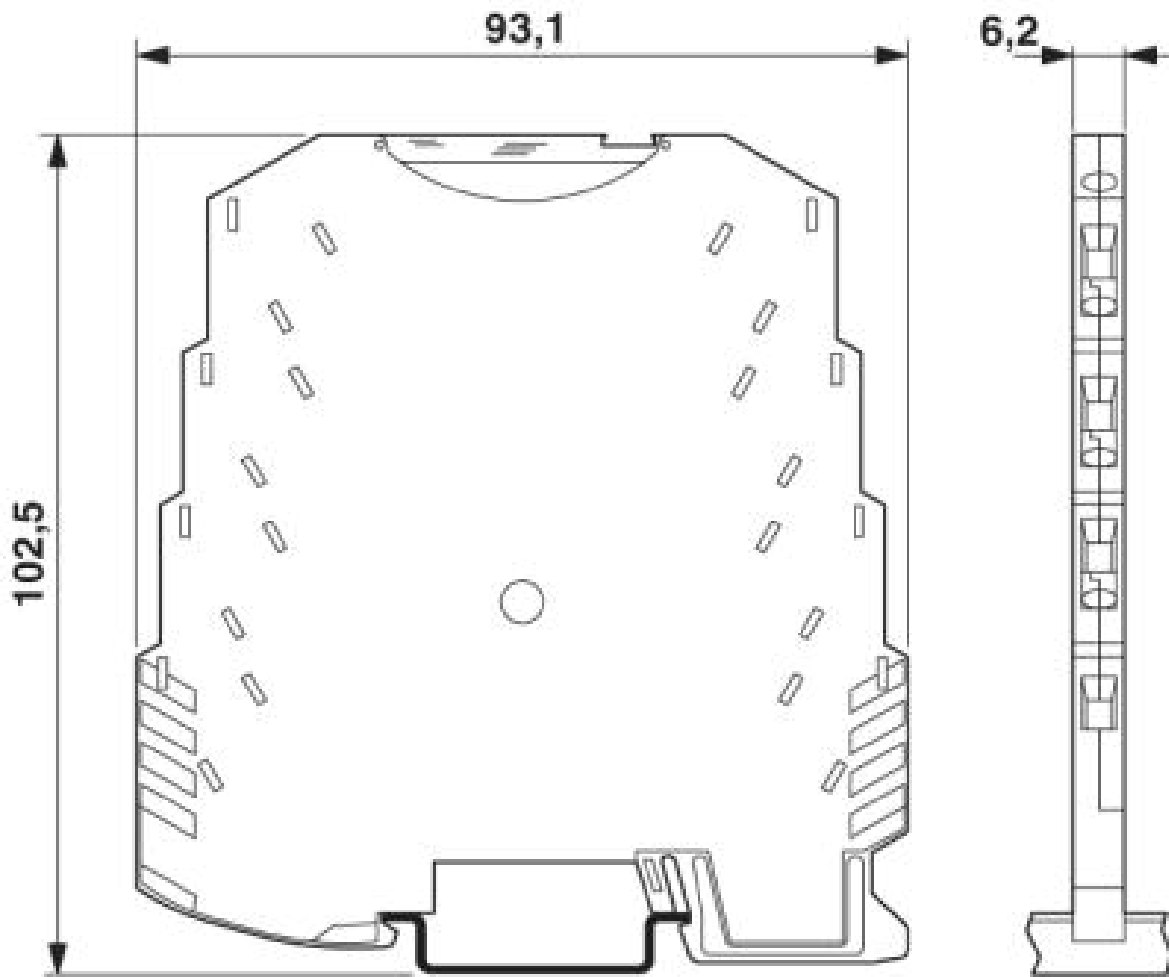
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Block diagram



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Dimensioned drawing



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