

Signal conditioner - MINI MCR-SL-UI-UI-SP-NC - 2864163

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MCR 3-way isolating amplifier, I/O can be configured via DIP switches, for the electrical isolation of analog signals, with spring-cage connection, standard configuration

The illustration shows the versions with screw connection

Product Features

- Power supply possible via the foot element (TBUS)
- Up to 36 signal combinations can be configured using DIP switches
- Low power consumption
- Highly-compact isolating amplifier for electrical isolation, conversion, amplification, and filtering of standard analog signals
- 3-way isolation



Key Commercial Data

Packing unit	1 pc
Weight per Piece (excluding packing)	64.4 g
Custom tariff number	85437090
Country of origin	Germany

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

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Technical data

Ambient conditions

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

Input data

Number of inputs	1
Configurable/programmable	Yes, unconfigured
Voltage input signal	0 V ... 10 V
	0 V ... 5 V
	1 V ... 5 V
	2 V ... 10 V
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
Max. input voltage	30 V
Max. input current	50 mA
Input resistance of voltage input	approx. 100 kΩ
Input resistance current input	approx. 50 Ω

Output data

Number of outputs	1
Configurable/programmable	Yes, unconfigured
Voltage output signal	0 V ... 10 V
	0 V ... 5 V
	1 V ... 5 V
	2 V ... 10 V
Current output signal	0 mA ... 20 mA (please indicate if different setting when ordering)
	4 mA ... 20 mA
Max. output voltage	approx. 12.5 V
Max. output current	28 mA
Short-circuit current	approx. 22 mA
Load/output load voltage output	≥ 10 kΩ
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 DIN rail bus 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	< 19 mA (Current output, at 24 V DC incl. load)
	< 9 mA (Voltage output, at 24 V DC incl. load)

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Power supply

Power consumption	< 450 mW (Current output)
	< 200 mW (Voltage output)

Connection data

Connection method	Spring-cage connection
Conductor cross section solid min.	0.2 mm ²
Conductor cross section solid max.	2.5 mm ²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.2 mm ²
Conductor cross section flexible max.	2.5 mm ²
Stripping length	8 mm

General

No. of channels	1
Maximum transmission error	≤ 0.1 % (of final value)
	< 0.4 % (Without adjustment)
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
Overvoltage category	II
Degree of pollution	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
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

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Technical data

General

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

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
Connection in acc. with standard	CUL
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Basic insulation according to EN 61010
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D T5
GL	GL EMC 2 D

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

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Classifications

eCl@ss

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	EC002653

UNSPSC

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

Approvals

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UL Recognized / cUL Recognized / GL / EAC / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / ATEX / cULus Listed

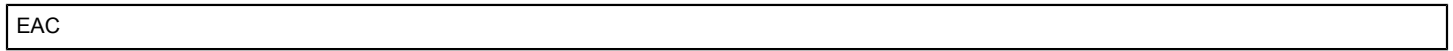
Approvals submitted

Approval details

UL Recognized

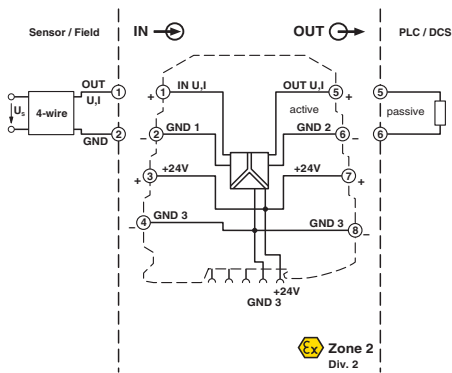
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Approvals

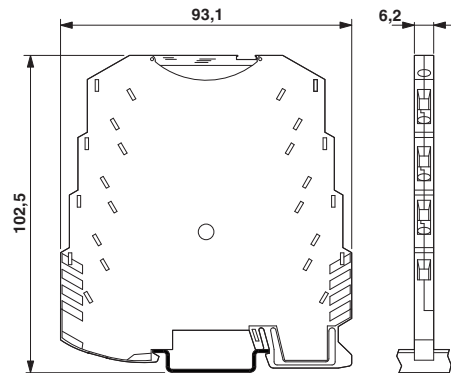


Drawings

Block diagram

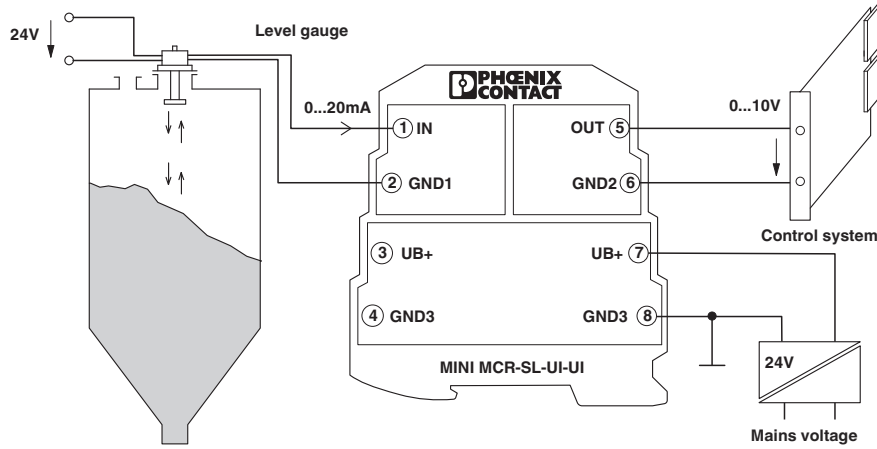


Dimensional drawing



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Application drawing



Level measurement