

MINI MCR-SL-UI-UI - Signal conditioner



2864383

<https://www.phoenixcontact.com/pc/products/2864383>

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 documentation. Our general terms of use for downloads are valid.



MCR 3-way signal conditioner, input/output can be configured via DIP switches, for the electrical isolation of analog signals, with screw connection, order configuration. Replacement part: 2902036 MINI MCR-2-UI-UI-C.

Product description

The 6.2 mm wide configurable 3-way isolating amplifier MINI MCR-SL-UI-UI-... is used for electrical isolation, conversion, amplification and filtering of standard signals.

The standard signals 0...20 mA, 4...20 mA, 0...10 V, 2...10 V, 0...5 V or 1...5V are available electrically isolated on the input and output side.

The DIP switches, which can be accessed on the side of the housing, can be used to configure the input and output signal ranges.

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.

Your advantages

- 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

Commercial data

Item number	2864383
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Product key	CK1211
Catalog page	Page 92 (C-7-2015)
Weight per piece (including packing)	88.7 g
Weight per piece (excluding packing)	67.9 g
Customs tariff number	85437090
Country of origin	DE

MINI MCR-SL-UI-UI - Signal conditioner



2864383

<https://www.phoenixcontact.com/pc/products/2864383>

Technical data


Product properties

Product type	Signal conditioner
Product family	MINI Analog
No. of channels	1

Insulation characteristics

Overvoltage category	II
Pollution degree	2

Electrical properties

No. of channels	1
Rated insulation voltage	50 V AC/DC
Electrical isolation	Basic insulation in accordance with EN 61010
Electrical isolation between input and output	yes
Limit frequency (3 dB)	approx. 100 Hz
Maximum power dissipation for nominal condition	58 mW 184 mW
Test voltage, input/output/supply	1.5 kV AC (50 Hz, 60 s)
Protective circuit	Transient protection
Step response (10-90%)	≈  ms
Maximum temperature coefficient	< 0.01 %/K
Temperature coefficient, typical	< 0.002 %/K
Maximum transmission error	≤ 0.1 % (of final value) < 0.4 % (Without adjustment)

Supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (The DIN rail connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, item no. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail in accordance with 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)
Power consumption	< 450 mW (Current output) < 200 mW (Voltage output)

Input data

Signal

Number of inputs	1
Configurable/programmable	Yes, preconfigured
Voltage input signal	0 V ... 10 V 0 V ... 5 V 1 V ... 5 V

MINI MCR-SL-UI-UI - Signal conditioner



2864383

<https://www.phoenixcontact.com/pc/products/2864383>

	2 V ... 10 V
Max. voltage input signal	30 V
Current input signal	0 mA ... 20 mA
	4 mA ... 20 mA
Max. current input signal	50 mA
Input resistance of voltage input	approx. 100 k Ω
Input resistance current input	approx. 50 Ω

Output data

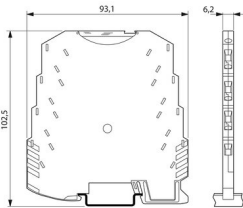
Signal

Number of outputs	1
Configurable/programmable	Yes, preconfigured
Voltage output signal	0 V ... 10 V
	0 V ... 5 V
	1 V ... 5 V
	2 V ... 10 V
Max. voltage output signal	approx. 12.5 V
Non-load voltage	approx. 12.5 V
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
Max. current output signal	28 mA
Short-circuit current	approx. 22 mA
Load/output load voltage output	≥ 10 k Ω
Load/output load current output	< 500 Ω (at 20 mA)
Ripple	< 20 mV _{PP} (at 500 Ω)
	< 20 mV _{PP} (at 10 k Ω)

Connection data

Connection method	Screw connection
Stripping length	12 mm
Screw thread	M3
Conductor cross section rigid	0.2 mm ² ... 2.5 mm ²
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	26 ... 12

Dimensions

Dimensional drawing	
Width	6.2 mm

MINI MCR-SL-UI-UI - Signal conditioner



2864383

<https://www.phoenixcontact.com/pc/products/2864383>

Height	93.1 mm
Depth	102.5 mm

Material specifications

Fire protection for rail vehicles (DIN EN 45545-2) R22	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R23	HL 1 - HL 2
Fire protection for rail vehicles (DIN EN 45545-2) R24	HL 1 - HL 2
Housing material	PBT

Environmental and real-life conditions

Ambient conditions

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

Approvals

CE

Certificate	CE-compliant
-------------	--------------

ATEX

Identification	⊕ II 3 G Ex nA IIC T4 Gc X
----------------	----------------------------

UL, USA/Canada

Identification	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D T5

GL

Identification	GL EMC 2 D
----------------	------------

EMC data

Noise immunity	EN 61000-6-2
Note	When being exposed to interference, there may be minimal deviations.
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4

Electrostatic discharge

Standards/regulations	EN 61000-4-2
-----------------------	--------------

Electrostatic discharge

Comments	Safety measures must be taken to prevent electrostatic discharge.
----------	---

Electromagnetic HF field

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	5 %

MINI MCR-SL-UI-UI - Signal conditioner



2864383

<https://www.phoenixcontact.com/pc/products/2864383>

Fast transients (burst)

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

Surge current load (surge)

Standards/regulations	EN 61000-4-5
-----------------------	--------------

Surge current load (surge)

Comments	Criterion B
----------	-------------

Conducted interference

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

Standards and regulations

Electrical isolation	Basic insulation in accordance with EN 61010
----------------------	--

Mounting

Mounting type	DIN rail mounting
Assembly instructions	The DIN rail connector can be used for bridging the supply voltage. It can be snapped onto a 35 mm EN 60715 DIN rail.
Mounting position	any

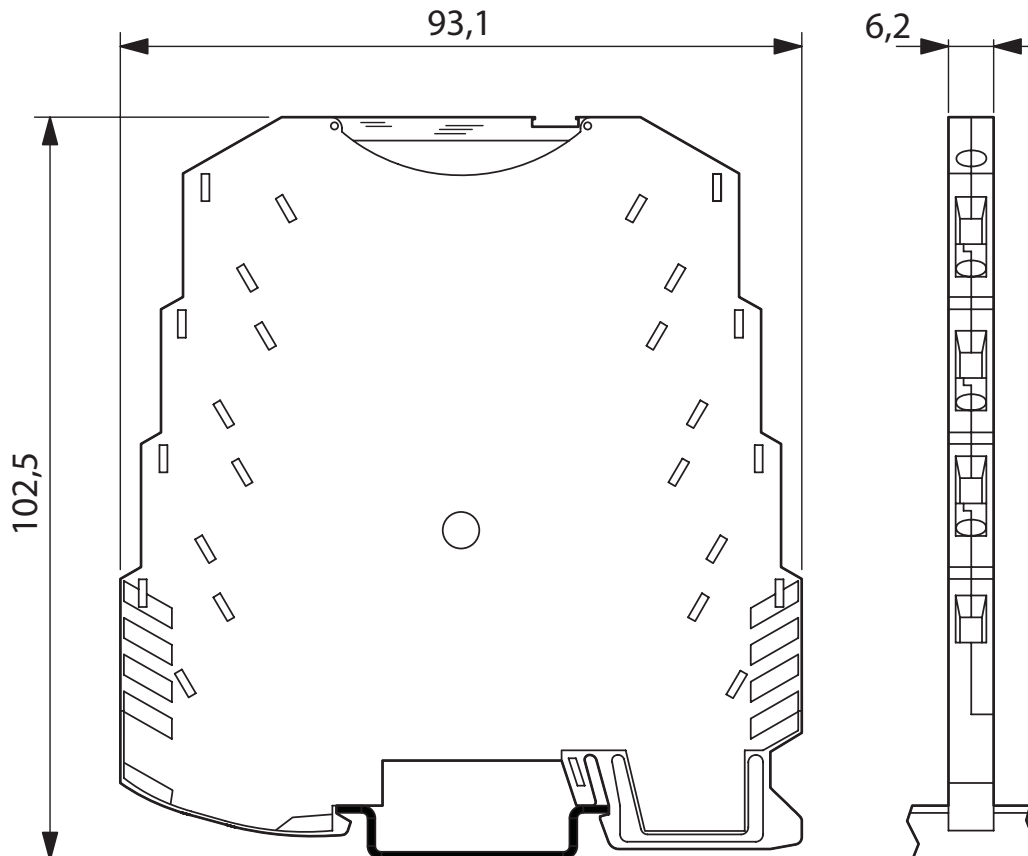
MINI MCR-SL-UI-UI - Signal conditioner

2864383

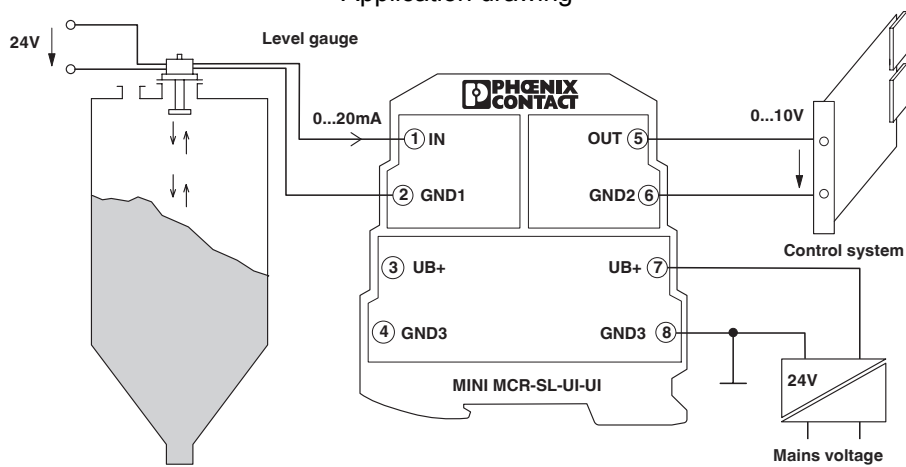
<https://www.phoenixcontact.com/pc/products/2864383>

Drawings

Dimensional drawing



Application drawing



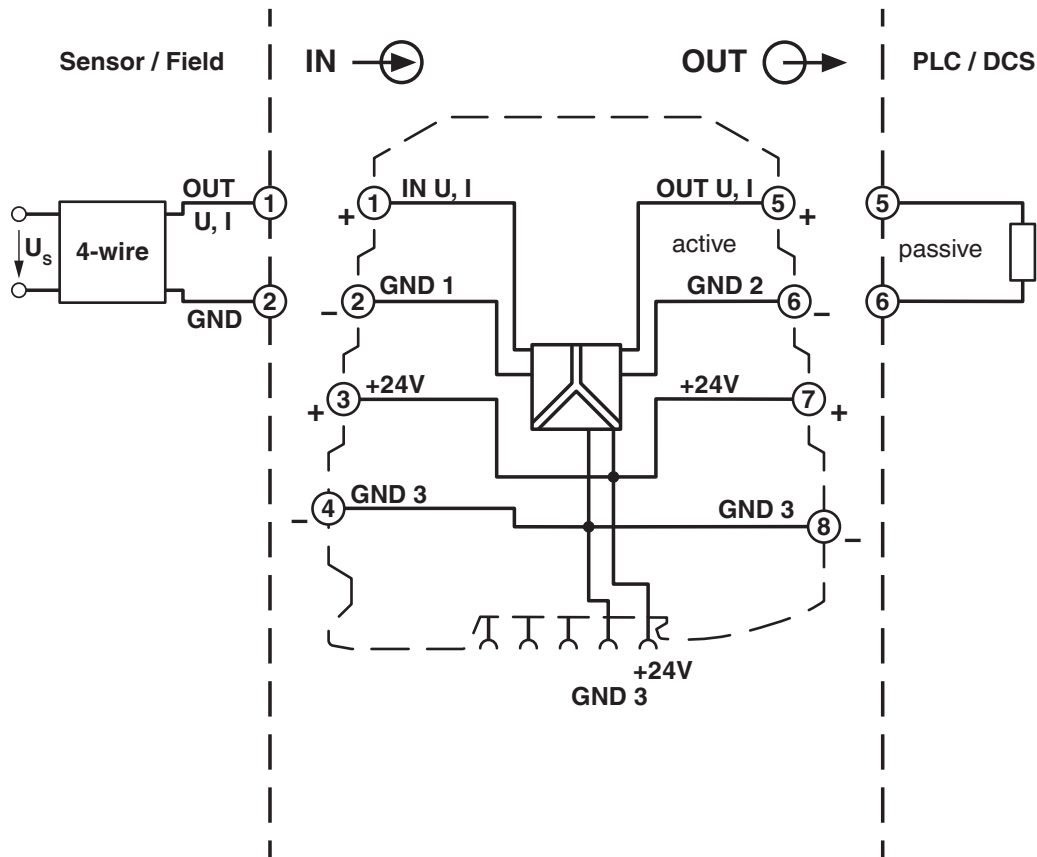
Level measurement

MINI MCR-SL-UI-UI - Signal conditioner

2864383

<https://www.phoenixcontact.com/pc/products/2864383>

Block diagram



MINI MCR-SL-UI-UI - Signal conditioner



2864383

<https://www.phoenixcontact.com/pc/products/2864383>

Classifications

ECLASS

ECLASS-11.0

27210120

ETIM

ETIM 7.0

EC002653

MINI MCR-SL-UI-UI - Signal conditioner



2864383

<https://www.phoenixcontact.com/pc/products/2864383>

Environmental product compliance

China RoHS	Environmentally Friendly Use Period = 50 years For information on hazardous substances, refer to the manufacturer's declaration available under "Downloads"
------------	--

MINI MCR-SL-UI-UI - Signal conditioner

2864383

<https://www.phoenixcontact.com/pc/products/2864383>

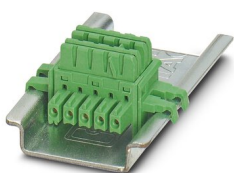


Accessories

ME 6,2 TBUS-2 1,5/5-ST-3,81 GN - DIN rail bus connectors

2869728

<https://www.phoenixcontact.com/pc/products/2869728>



DIN rail connector for DIN rail mounting. Universal for TBUS housing. Gold-plated contacts, 5-pos.

MINI MCR-SL-PTB - Power terminal block

2864134

<https://www.phoenixcontact.com/pc/products/2864134>



MCR power terminal block for supplying several MINI Analog modules via the DIN rail connector, with screw connection, maximum current consumption of up to 2 A

MINI MCR-SL-UI-UI - Signal conditioner

2864383

<https://www.phoenixcontact.com/pc/products/2864383>



MINI-SYS-PS-100-240AC/24DC/1.5 - Power supply unit

2866983

<https://www.phoenixcontact.com/pc/products/2866983>



Please use the following item in new systems: 2904614
Primary-switched MINI POWER power supply for DIN rail mounting, input: 1-phase, output: 24 V DC/1.5 A

MINI MCR DKL - Transparent cover

2308111

<https://www.phoenixcontact.com/pc/products/2308111>



Fold up transparent cover for MINI MCR modules with additional labeling option using insert strips and flat Zack marker strip 6.2 mm

MINI MCR-SL-UI-UI - Signal conditioner

2864383

<https://www.phoenixcontact.com/pc/products/2864383>



MINI MCR-DKL-LABEL - Marking label

2810272

<https://www.phoenixcontact.com/pc/products/2810272>

Label for extended marking of MINI MCR modules in connection with the MINI MCR-DKL



SZS 0,6X3,5 - Screwdriver

1205053

<https://www.phoenixcontact.com/pc/products/1205053>

Actuation tool, for ST terminal blocks, insulated, also suitable for use as a bladed screwdriver, size: 0.6 x 3.5 x 100 mm, 2-component grip, with non-slip grip



Phoenix Contact 2023 © - all rights reserved
<https://www.phoenixcontact.com>

PHOENIX CONTACT GmbH & Co. KG
Flachsmarktstraße 8
D-32825 Blomberg
+49 (0) 5235-3 00
info@phoenixcontact.com