

MCR-C-UI-UI-450-DCI - Signal conditioner

2810887

<https://www.phoenixcontact.com/us/products/2810887>

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The figure shows version MCR-C-UI-UI-DCI

MCR 3-way signal conditioner, with configurable I/O, for the electrical isolation of analog signals, with cut-off frequency (3 dB) 450 Hz, preconfigured. For information about permitted signal combinations, please refer to the data sheet. Replacement part: 2811284 MACX MCR-UI-UI.

Commercial data

Item number	2810887
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C401
Product key	DK1XXX
Weight per piece (including packing)	129 g
Weight per piece (excluding packing)	129 g
Customs tariff number	85437090
Country of origin	DE

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Technical data

Product properties

Product type	Signal conditioner
No. of channels	1

Electrical properties

Alignment span	$\pm 2 \%$
Alignment zero	$\pm 2 \%$
Electrical isolation between input and output	yes
Limit frequency (3 dB)	450 Hz
Maximum power dissipation for nominal condition	900 mW
Test voltage input/output	1.5 kV AC (50 Hz, 60 s)
Test voltage power supply/signal	1 kV AC (50 Hz, 60 s)
Protective circuit	Transient protection
Step response (10-90%)	0.8 ms
Maximum temperature coefficient	0.0075 %/K
Maximum transmission error	$\leq 0.1 \%$ (of final value)

Supply

Supply voltage range	18 V DC ... 30 V DC
Max. current consumption	< 30 mA (without load)

Input data

Signal

Number of inputs	1
Configurable/programmable	Yes, preconfigured
Voltage input signal	0 V ... 10 V (please indicate if different setting when ordering)
Max. voltage input signal	30 V
Max. current input signal	50 mA
Input resistance of voltage input	1 M Ω
Input resistance current input	50 Ω

Output data

Signal

Number of outputs	1
Configurable/programmable	Yes, preconfigured
Voltage output signal	0 V ... 10 V (please indicate if different setting when ordering)
Max. voltage output signal	15 V
Max. current output signal	30 mA
Load/output load voltage output	$\geq 10 \text{ k}\Omega$
Load/output load current output	$\leq 500 \Omega$

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Connection data

Connection method	Pluggable screw connection
Stripping length	8 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	24 ... 14

Dimensions

Dimensional drawing	
Width	17.5 mm
Height	99 mm
Depth	114.5 mm

Material specifications

Color	green (RAL 6021)
Housing material	Polyamide PA non-reinforced

Environmental and real-life conditions

Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-20 °C ... 65 °C

Approvals

CE

Certificate	CE-compliant
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EMC data

Electromagnetic compatibility	Conformance with EMC directive
Noise immunity	EN 61000-6-2

Noise emission

Standards/regulations	EN 61000-6-4
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Mounting

Mounting type	DIN rail mounting
Mounting position	any

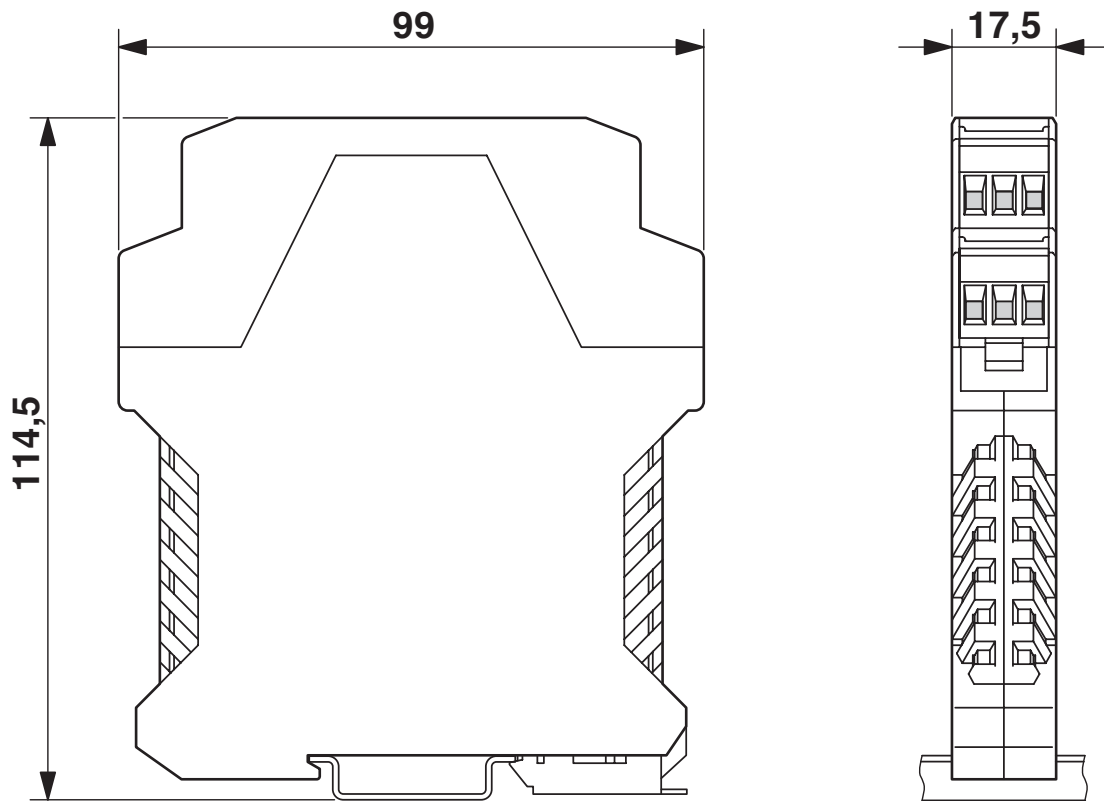
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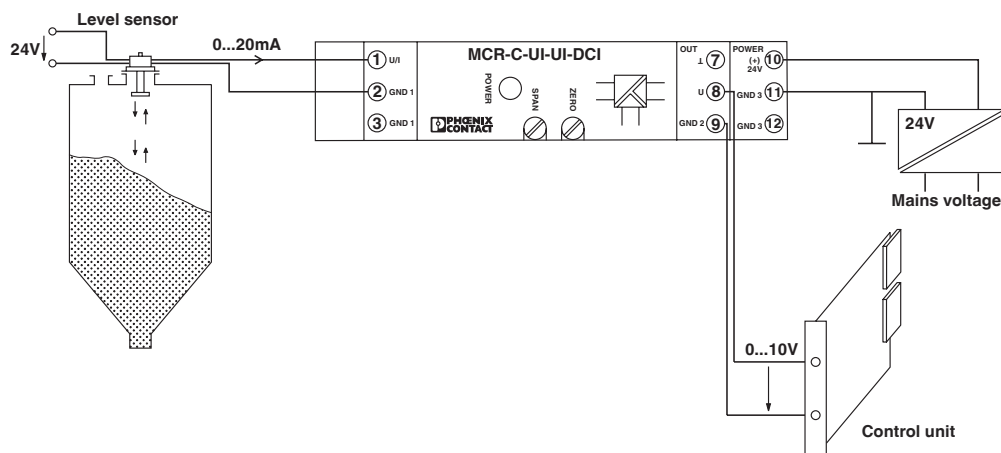
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Drawings

Dimensional drawing



Application drawing



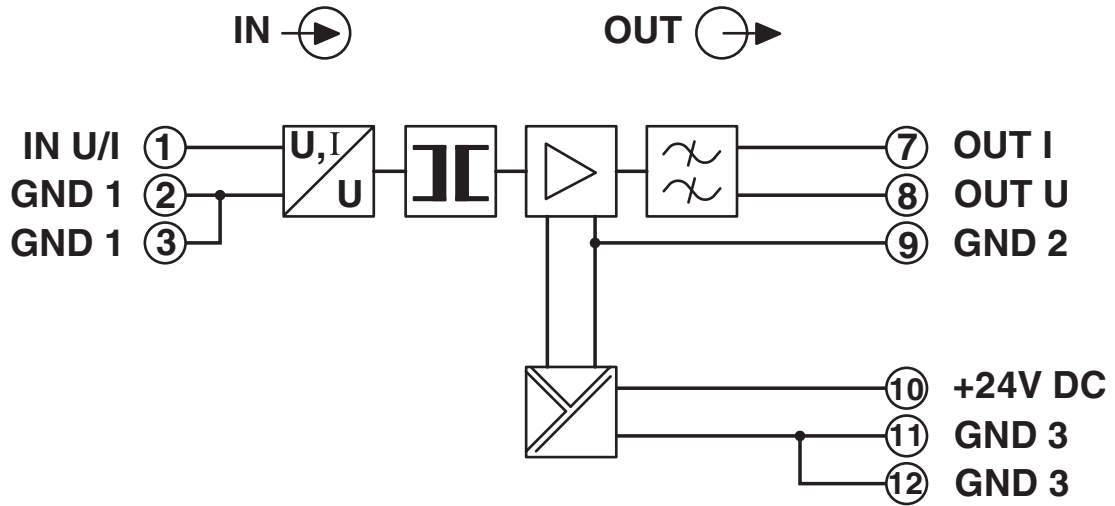
Application example: Level measurement

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Circuit diagram



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Classifications

UNSPSC

UNSPSC 21.0	39121008
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Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	15, 15(a), 6(c), 7(a), 7(c)-I

China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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