

# MCR-C-UI-UI-DCI-NC - Signal conditioner



2810939

<https://www.phoenixcontact.com/gb/products/2810939>

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MCR 3-way signal conditioner, with configurable input/output, for the electrical isolation of analog signals, not configured. Replacement item: 2811446 MACX MCR-UI-UI-NC.

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

## Commercial data

Item number	2810939
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to order (non-returnable)
Sales key	DK1XXX
Product key	DK1XXX
GTIN	4017918118303
Weight per piece (including packing)	138.6 g
Weight per piece (excluding packing)	138.4 g
Customs tariff number	85437090
Country of origin	DE

## Technical data

### Product properties

Product type	Signal conditioner
No. of channels	1

### Electrical properties

Alignment span	± 2 %
Alignment zero	± 2 %
Electrical isolation between input and output	yes
Limit frequency (3 dB)	30 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%)	11 ms
Maximum temperature coefficient	0.0075 %/K
Maximum transmission error	≤ 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, standard configuration IN 0 ... 10 V, OUT 0 ... 10 V
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 MΩ
Input resistance current input	50 Ω

### Output data

#### Signal

Number of outputs	1
Configurable/programmable	Yes, unconfigured
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	≥ 10 kΩ
Load/output load current output	≤ 500 Ω

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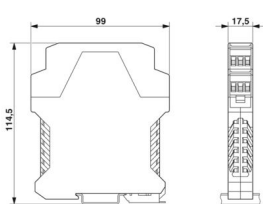
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## Connection data

Connection method	Pluggable screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.2 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
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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### UL, USA/Canada

Identification	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D
	Class I, Zone 2, Group IIC

## 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

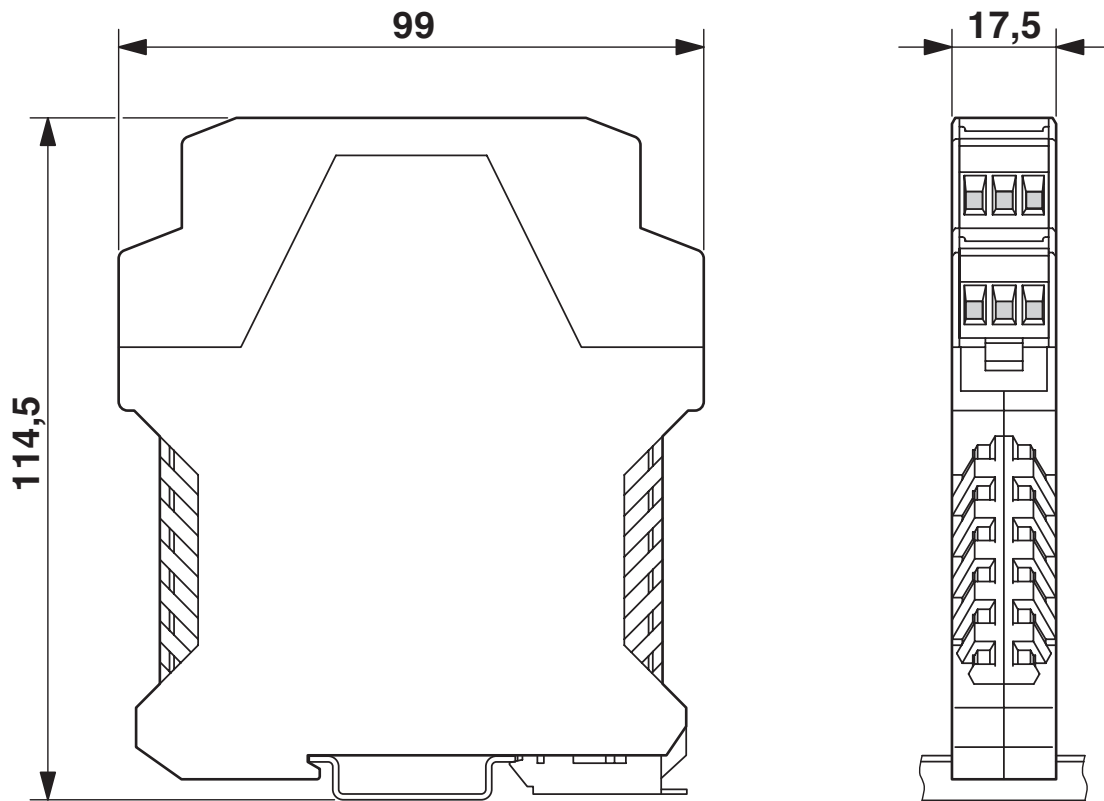
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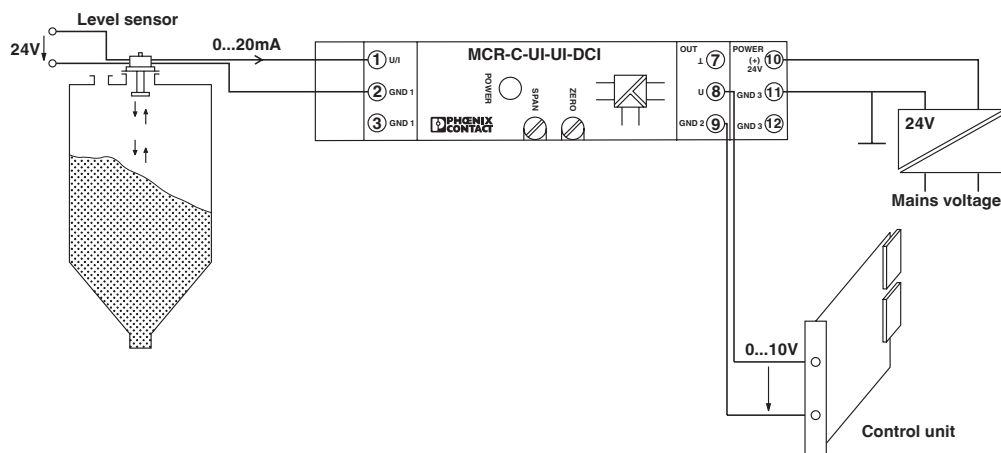
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## Drawings

Dimensional drawing



Application drawing



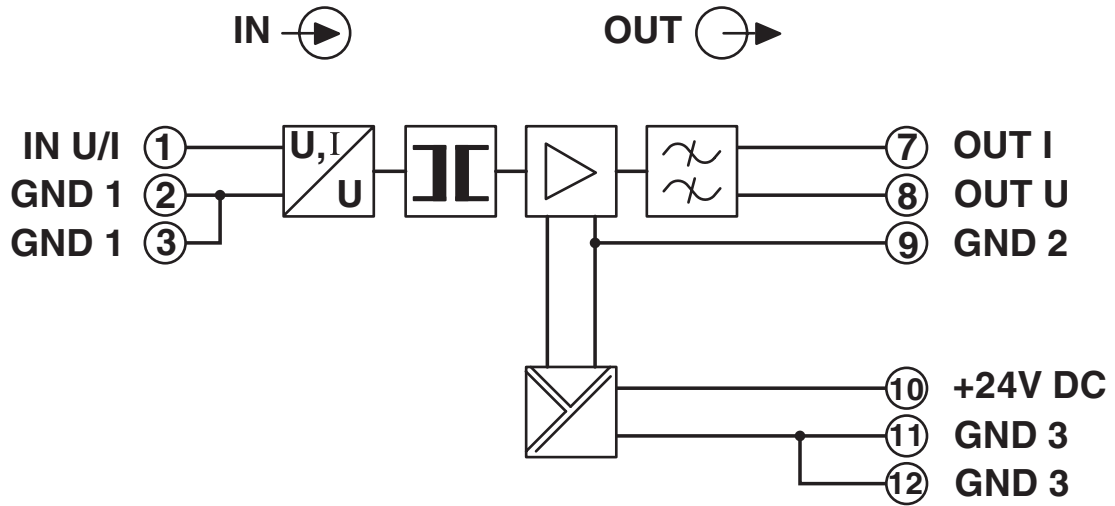
Application example: Level measurement

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Circuit diagram



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## Classifications

### ETIM

ETIM 9.0	EC002653
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### 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.)	Hexahydromethylphthalic anhydride(CAS: n/a)
	Lead(CAS: 7439-92-1)