MCR-VAC-UI-O-DC - Voltage measuring transducers

2811103

https://www.phoenixcontact.com/us/products/2811103

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MCR voltage measuring transducer, for alternating current voltages from 0..20 V AC to 0..440 V AC, output signal 0..10 V/0(4)..20 mA

Your advantages

- Replacement device MACX MCR-VAC-(PT) 2906239 with 8 measurement ranges from 0 V ... 20 V AC to 0 V ... 660 V AC, output signals: 0 V ... 10 V / 0 (4) mA ... 20 mA
- Adjustable voltage ranges
- Bidirectional output signals
- 3-way isolation
- ZERO/SPAN adjustment ±20 %
- Tool-free parameterization of measured values
- Teach-in configuration of the measured value range

Commercial data

Item number	2811103
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C445
Product key	CMMB11
GTIN	4017918125400
Weight per piece (including packing)	204.5 g
Weight per piece (excluding packing)	204.5 g
Customs tariff number	85437090
Country of origin	DE

Technical data

Product properties

Product type	Voltage transducer

Insulation characteristics

Overvoltage category	III
Pollution degree	2

Electrical properties

Alignment span	± 20 %
Alignment zero	± 20 %
Rated insulation voltage	300 V DC
Frequency measuring range	45 Hz ... 400 Hz
Maximum power dissipation for nominal condition	0.8 W
Test voltage output/power supply	1 kV (50 Hz, 1 min.)
Test voltage input/output	3.3 kV (50 Hz, 1 min.)
Test voltage input/power supply	3.3 kV (50 Hz, 1 min.)
Step response (10-90%)	250 ms
Temperature coefficient, typical	0.02 %/K (50/60 Hz)
Maximum transmission error	< 1.5 % (of final value)

Supply

Supply voltage range	18.5 V DC ... 30.2 V DC
Max. current consumption	< 45 mA

Input data

Measurement

Description of the input	0 V - 370 V input
Configurable/programmable	Yes
Input voltage range	0 V ... 370 V AC
Maximum input voltage	440 V (ungrounded)
	250 V (to earth)
Input resistance of voltage input	370 kΩ
Impulse form	AC voltage

Measurement

Description of the input	0 V - 250 V input
Input voltage range	0 V ... 250 V AC
Input resistance of voltage input	250 kΩ

Measurement

Description of the input	0 V - 170 V input
Input voltage range	0 V ... 170 V AC
Input resistance of voltage input	170 kΩ

Measurement

Description of the input	0 V - 120 V input
Input voltage range	0 V ... 120 V AC
Input resistance of voltage input	120 kΩ

Measurement

Description of the input	0 V - 80 V input
Input voltage range	0 V ... 80 V AC
Input resistance of voltage input	80 kΩ

Measurement

Description of the input	0 V - 54 V input
Input voltage range	0 V ... 54 V AC
Input resistance of voltage input	54 kΩ

Measurement

Description of the input	0 V - 36 V input
Input voltage range	0 V ... 36 V AC
Input resistance of voltage input	36 kΩ

Measurement

Description of the input	0 V - 24 V input
Input voltage range	0 V ... 24 V AC
Input resistance of voltage input	24 kΩ

Output data

Signal: Voltage output

Voltage output signal	0 V ... 10 V
Max. voltage output signal	15 V
Load/output load voltage output	> 10 kΩ
Ripple	< 50 mV_{PP}

Signal: Current output

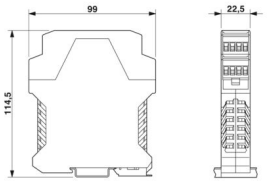
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
Max. current output signal	30 mA
Load/output load current output	< 500 Ω
Ripple	< 50 mV_{PP}

Connection data

Connection method	Pluggable screw connection
Connection technology	Screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	0.2 mm² ... 2.5 mm²

Conductor cross-section flexible	0.2 mm² ... 2.5 mm²
Conductor cross-section AWG	24 ... 14

Dimensions

Dimensional drawing	
Width	22.5 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)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C (non-condensing)
Altitude	< 2000 m

Approvals

CE

Certificate	CE-compliant

UL, USA/Canada

Identification	cULus

EMC data

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

Noise emission

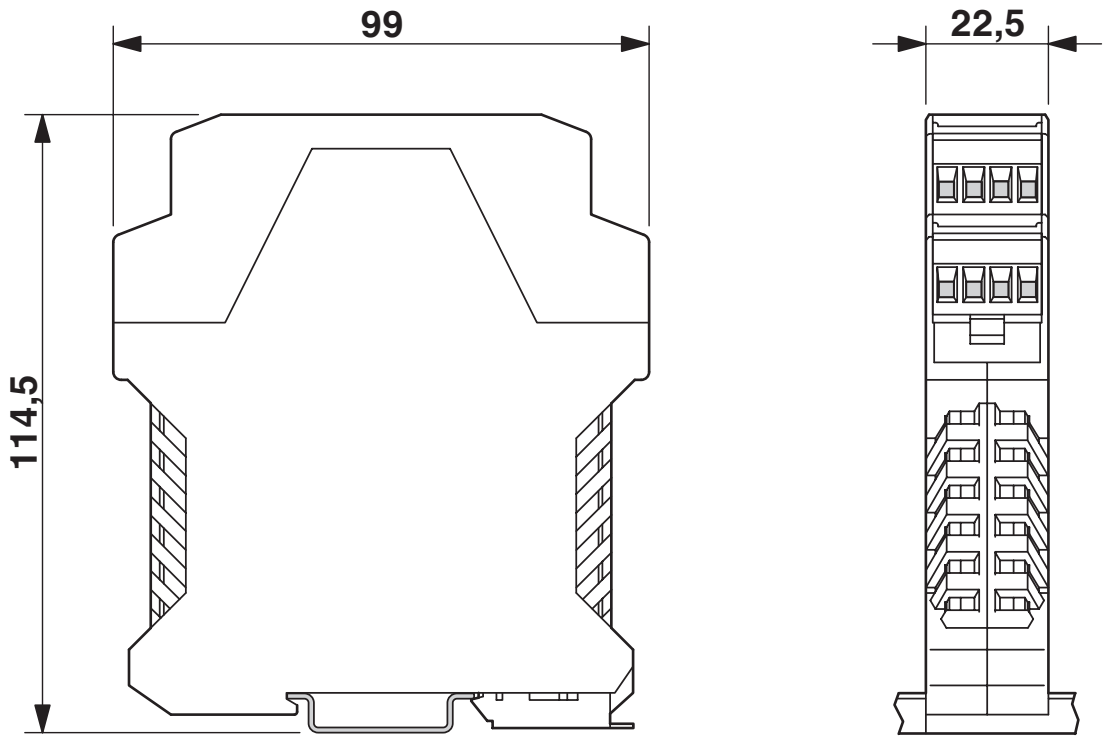
Standards/regulations	EN 61000-6-4

Mounting

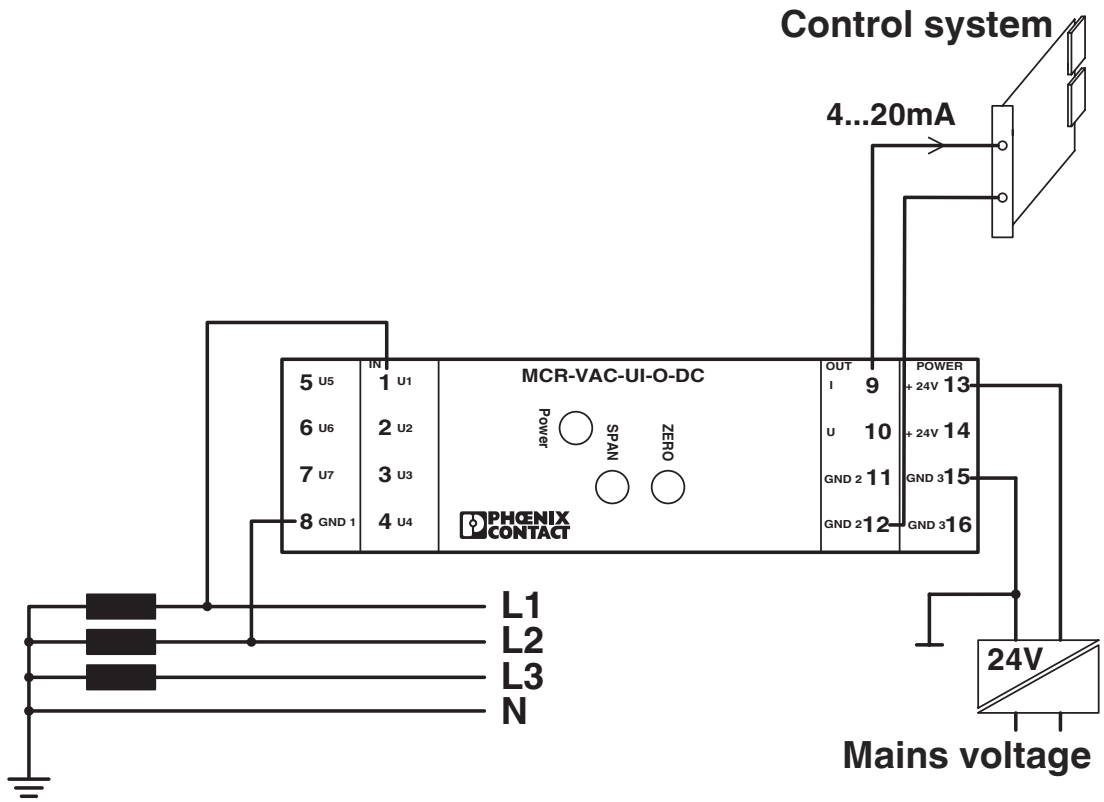
Mounting type	DIN rail mounting

Drawings

Dimensional drawing

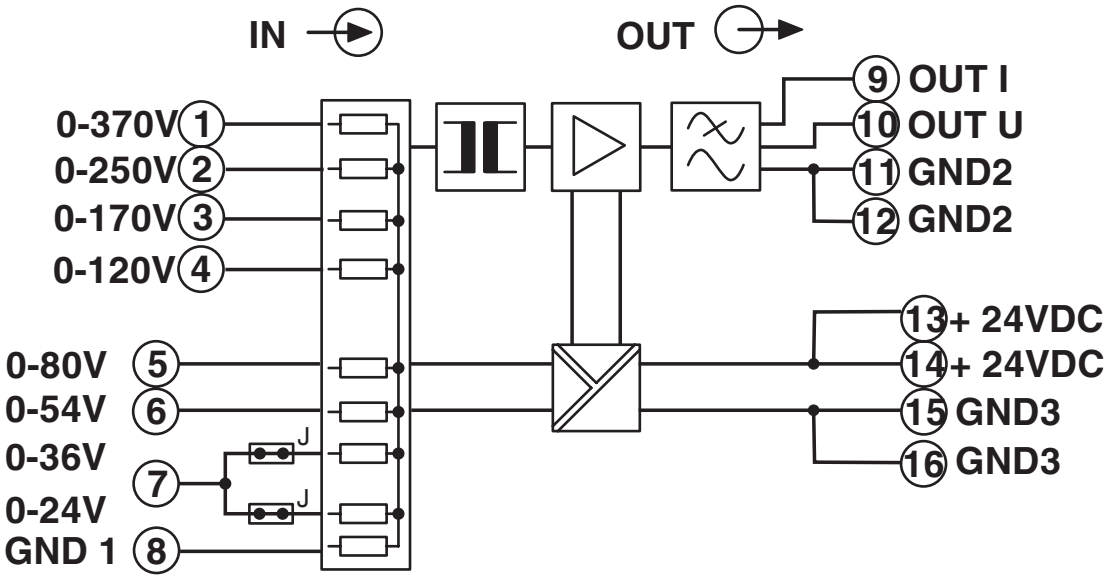


Application drawing



Voltage measurement in case of grounded circuits

Circuit diagram



Classifications

UNSPSC

UNSPSC 21.0	39121008

Environmental product compliance

EU RoHS

Fulfills EU RoHS substance requirements	Yes
Exemption	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.)	Lead(CAS: 7439-92-1)

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