

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



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 $\pm 20\%$
- Tool-free parameterization of measured values
- Teach-in configuration of the measured value range

Commercial Data

Item number	2811103
Packing unit	1 pc
Minimum order quantity	1 pc
Note	Made to Order (non-returnable)
Sales Key	C04
Product Key	CK4B11
Catalog Page	Page 236 (C-7-2013)
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
Input resistance of voltage input	370 kΩ
Maximum input voltage	440 V (ungrounded) 250 V (to earth)
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

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Measurement

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

Measurement

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

Measurement

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

Measurement

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

Measurement

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

Output data

Signal:

Voltage output signal	0 V ... 10 V
Max. voltage output signal	15 V
Load/output load voltage output	> 10 k Ω
Ripple	< 50 mV _{PP}

Signal:

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 solid	0.2 mm ² ... 2.5 mm ²

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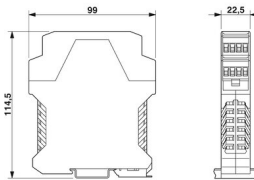


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Conductor cross section flexible	0.2 mm² ... 2.5 mm²
Conductor cross section AWG	24 ... 14

Dimensions

Dimensional drawing	
Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Material specifications

Housing material	Polyamide PA non-reinforced
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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

Approval data

CE

Certificate	CE-compliant
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UL, USA / Canada

Identification	cULus
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EMC data

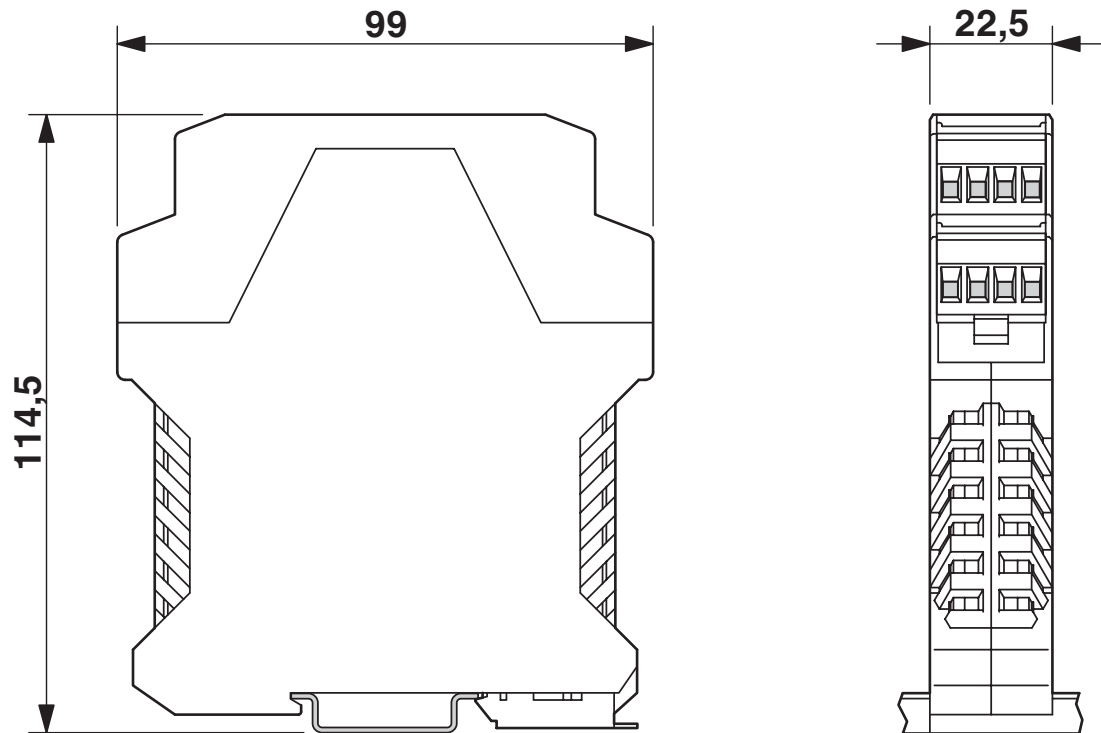
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2

Mounting

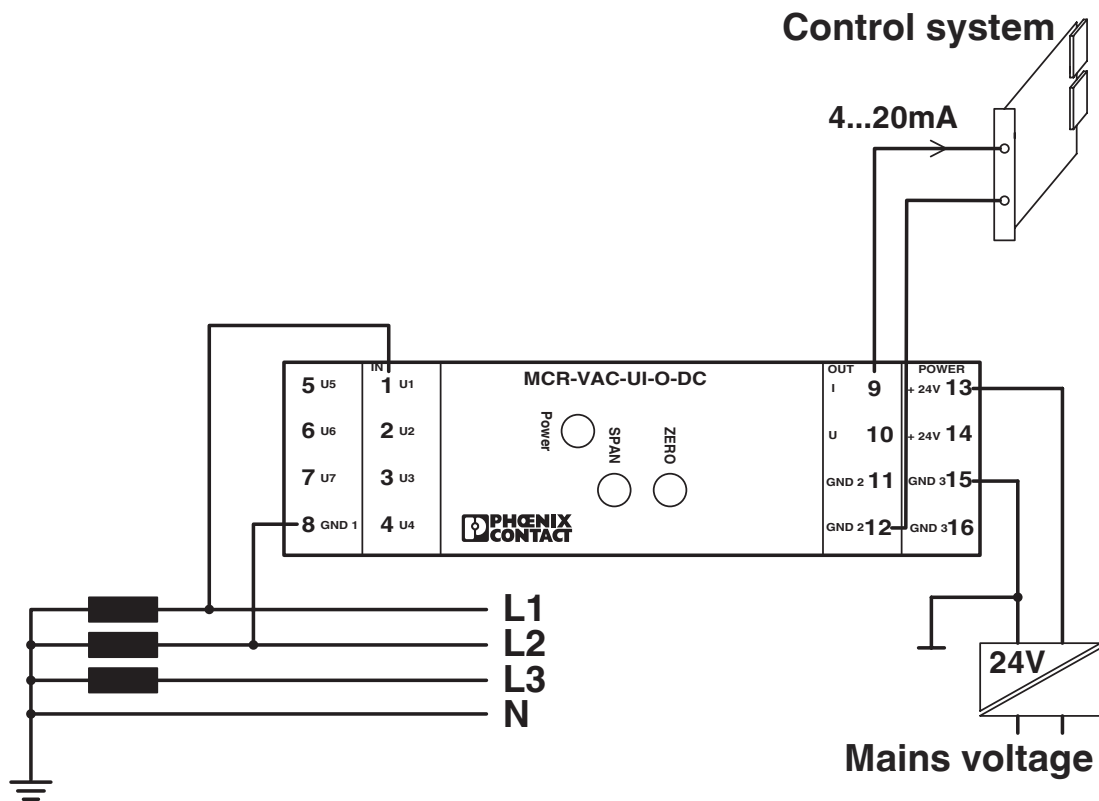
Mounting type	DIN rail mounting
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Drawings

Dimensional drawing

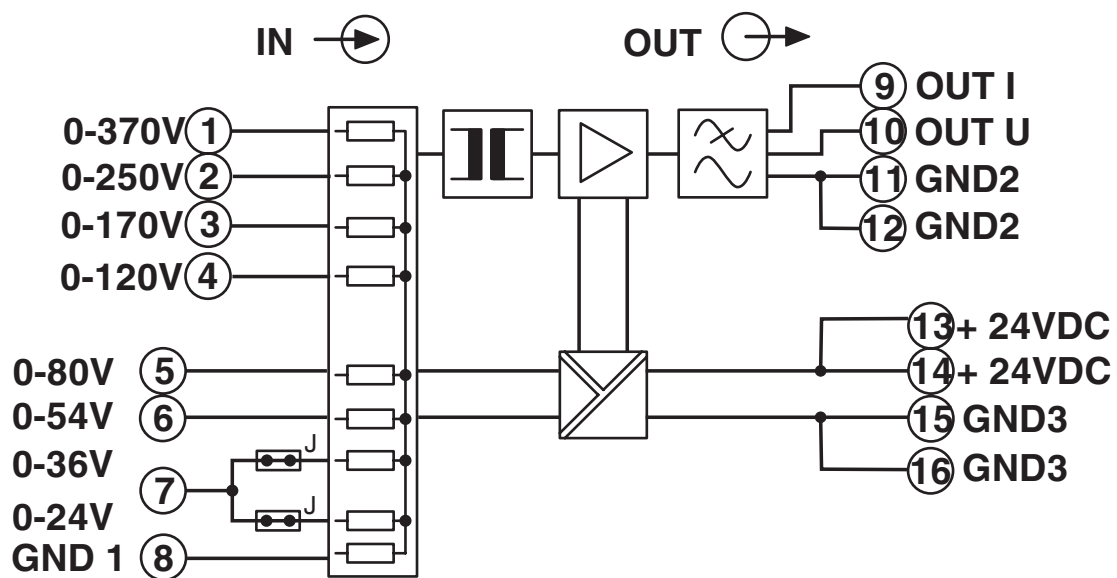


Application drawing



Voltage measurement in case of grounded circuits

Circuit diagram



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Classifications

ECLASS

ECLASS-9.0	27210125
ECLASS-10.0.1	27210125

ETIM

ETIM 7.0	EC002477
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UNSPSC

UNSPSC 21.0	39121008
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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"

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