

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



Key Commercial Data

Packing unit	1 pc
GTIN	 4 017918 125400
GTIN	4017918125400

Technical data

Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
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Dimensions

Width	22.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
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Technical data

Ambient conditions

Ambient temperature (storage/transport)	-40 °C ... 85 °C (non-condensing)
Maximum altitude	< 2000 m
Degree of protection	IP20
Noise immunity	EN 61000-6-2

Input data

Input voltage range	0 V ... 370 V AC
Input resistance	370 kΩ
Input voltage range	0 V ... 250 V AC
Input resistance	250 kΩ
Input voltage range	0 V ... 170 V AC
Input resistance	170 kΩ
Input voltage range	0 V ... 120 V AC
Input resistance	120 kΩ
Input voltage range	0 V ... 80 V AC
Input resistance	80 kΩ
Input voltage range	0 V ... 54 V AC
Input resistance	54 kΩ
Input voltage range	0 V ... 36 V AC
Input resistance	36 kΩ
Input voltage range	0 V ... 24 V AC
Input resistance	24 kΩ
Nom. voltage	440 V (ungrounded)
	250 V (to earth)

Output data

Output name	Voltage output
Voltage output signal	0 V ... 10 V
Max. output voltage	15 V
Load/output load voltage output	> 10 kΩ
Ripple	< 50 mV _{PP}
Output name	Current output
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
Max. output current	30 mA
Load/output load current output	< 500 Ω
Ripple	< 50 mV _{PP}

Power supply

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

Connection data

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Technical data

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
Conductor cross section flexible	0.2 mm ² ... 2.5 mm ²
Conductor cross section AWG	24 ... 14

General

Maximum transmission error	< 1.5 % (of final value)
Temperature coefficient, typical	0.02 %/K (50/60 Hz)
Frequency measuring range	45 Hz ... 400 Hz
Alignment zero	± 20 %
Alignment span	± 20 %
Step response (10-90%)	250 ms
Overvoltage category	III
Degree of pollution	2
Rated insulation voltage	300 V DC
Test voltage input/output	3.3 kV (50 Hz, 1 min.)
Test voltage input/power supply	3.3 kV (50 Hz, 1 min.)
Test voltage output/power supply	1 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2
Color	green
Housing material	Polyamide PA non-reinforced

Standards and Regulations

Electromagnetic compatibility	Conformance with EMC directive
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2
Connection in acc. with standard	CUL
Conformance	CE-compliant
UL, USA/Canada	cULus

Conformance/approvals

Designation	CE
Identification	CE-compliant
Designation	UL, USA/Canada
Identification	cULus

Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
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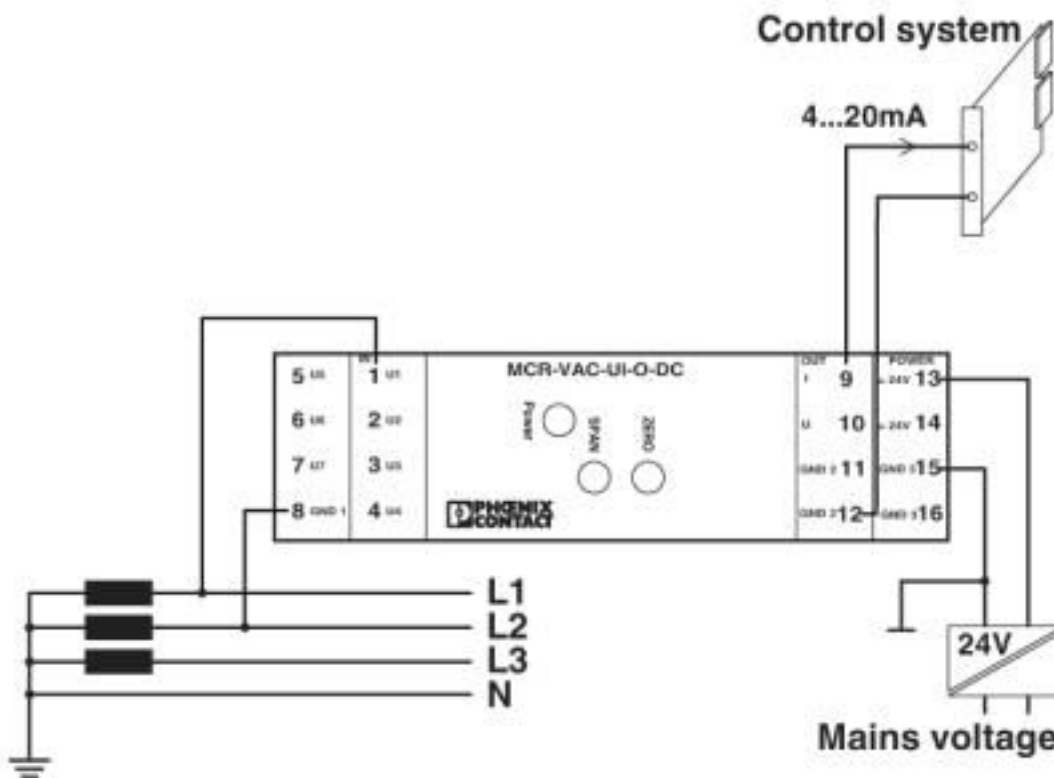
Technical data

Environmental Product Compliance

China RoHS	Environmentally Friendly Use Period = 50 years
	For details about hazardous substances go to tab "Downloads", Category "Manufacturer's declaration"

Drawings

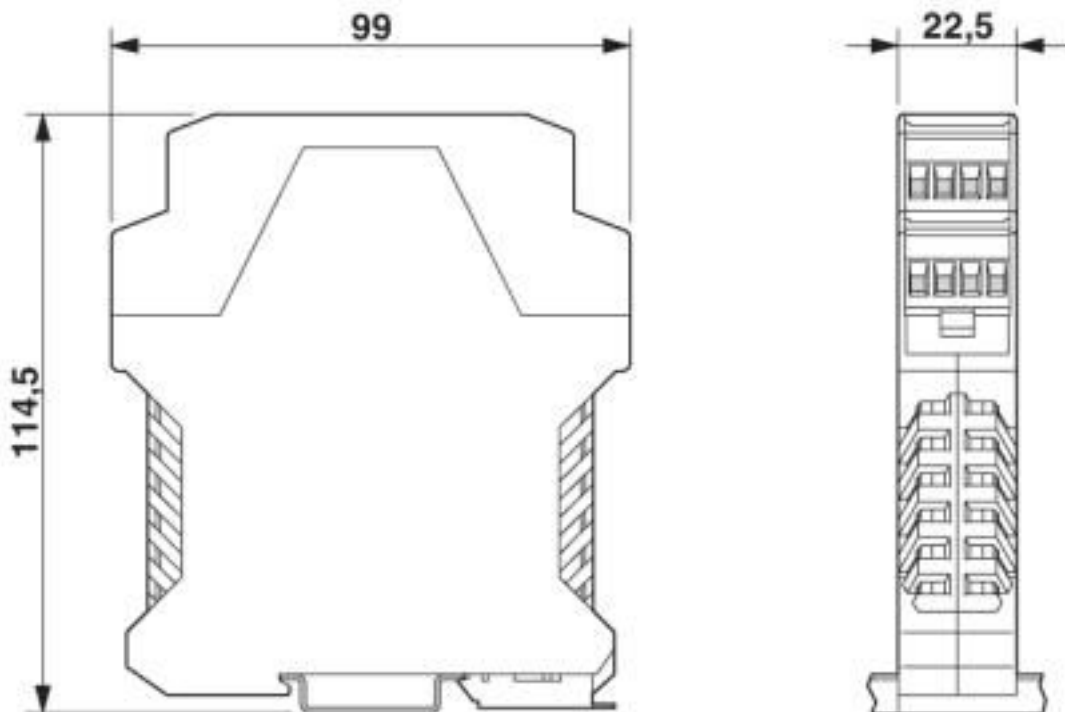
Application drawing



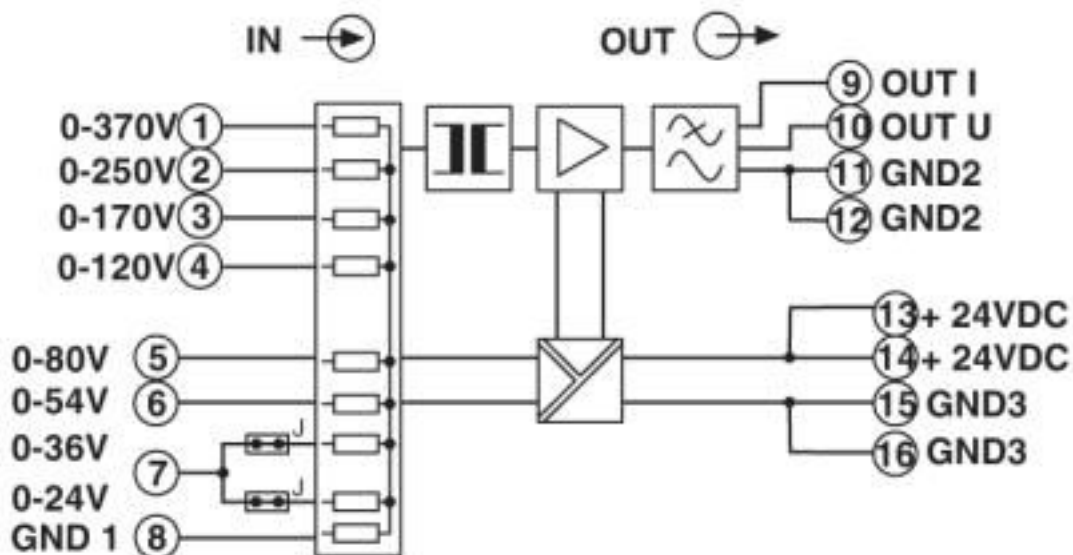
Voltage measurement in case of grounded circuits

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Dimensional drawing



Circuit diagram



Classifications

eCl@ss

eCl@ss 10.0.1	27210125
eCl@ss 4.0	27271100

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Classifications

eCl@ss

eCl@ss 4.1	27200300
eCl@ss 5.0	27200300
eCl@ss 5.1	27200300
eCl@ss 6.0	27210100
eCl@ss 7.0	27210125
eCl@ss 8.0	27210125
eCl@ss 9.0	27210125

ETIM

ETIM 4.0	EC002477
ETIM 5.0	EC002477
ETIM 6.0	EC002477
ETIM 7.0	EC002477

UNSPSC

UNSPSC 6.01	30211504
UNSPSC 7.0901	39121006
UNSPSC 11	39121006
UNSPSC 12.01	39121006
UNSPSC 13.2	39121006
UNSPSC 18.0	39121008
UNSPSC 19.0	39121008
UNSPSC 20.0	39121008
UNSPSC 21.0	39121008

Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

Approval details

UL Recognized		http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm	FILE E 238705
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Approvals

cUL Recognized



<http://database.ul.com/cgi-bin/XYV/template/LISEXT/1FRAME/index.htm> FILE E 238705

EAC



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cULus Recognized



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