

# MCR-FL-TS-LP-I-EX-400 - Temperature measuring transducer



2904872

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Measurement and control temperature transducers, resistance thermometers, thermocouples, resistance-type sensors, and voltage sensors. Replacement part: 1012249 MACX MCR-EX-TS-I-OLP-C.

## Your advantages

- Preconfigured to 400 °C
- Can be installed in zone 1
- 2-way electrical isolation
- Output: 4 mA ... 20 mA/20 mA ... 4 mA
- Loop-powered
- 1-channel
- HART-compatible

## Commercial data

Item number	2904872
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DK1XXX
GTIN	4046356902458
Weight per piece (including packing)	125 g
Weight per piece (excluding packing)	104 g
Customs tariff number	85437090
Country of origin	DE

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## Technical data

### Product properties

Product type	Temperature transmitter
Application	Temperature

### Electrical properties

Switch-on delay	4 s
Line monitoring	NE 43
Test voltage input/output	2 kV AC (50 Hz, 60 s)
Step response (10-90%)	< 2 s
Transmission error voltage sensor	±20 µV (-10 mV ... 100 mV)
Transmission error thermocouples	typ. 0.5 K (K, J, T, E, L, U), 1.0 K (N, C, D), 2.0 K (S, B, R)
Transmission error resistance-type sensor	±0.1 Ω (10 ... 400 Ω), ±1.5 Ω (10 ... 2000 Ω)
Transmission error resistance thermometer	0.2 K (Pt 100, Ni 100), 0.5 K (Pt 500, Ni 500), 0.3 K (Pt 1000, Ni 1000)

### Input data

#### Signal

Input signal	Temperature
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#### Measurement

Configurable/programmable	no, preconfigured
Sensor types (RTD) that can be used	Pt, Ni (100, 500, 1000); min. measurement range 10 K
Sensor types that can be used (TC)	B, C, D, E, J, K, L, N, R, S, T, U; min. measurement range 50 K/500 K
Temperature measuring range	-25 °C ... 400 °C
Linear resistance measuring range	10 Ω ... 400 Ω (min. measurement range 10 Ω)
Linear mV signal range	-10 mV ... 100 mV (min. measurement range 5 mV)

### Output data

#### Switching:

Configurable/programmable	no
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#### Signal

Output description	Current output
Configurable/programmable	no
Current output signal	4 mA ... 20 mA 20 mA ... 4 mA
Max. current output signal	≤ 23 mA
Output current with short-circuit	≤ 3.6 mA or ≥ 21 mA (adjustable, not for thermocouples)
Output current with wire break	≤ 3.6 mA or ≥ 21 mA (adjustable)
Output current range with overrange/underrange	3.8 mA ... 20.5 mA
Load/output load current output	≤ 520 Ω (At $U_V = 24 V$ ; $U_{supply} - 12 V / 0.023 A$ )

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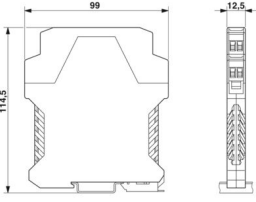
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## Connection data

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
Tightening torque	0.5 Nm ... 0.6 Nm

## Dimensions

Dimensional drawing	
Width	12.5 mm
Height	99 mm
Depth	114.5 mm

## Material specifications

Color	green (RAL 6021)
Flammability rating according to UL 94	V0
Housing material	Polyamide PA non-reinforced

## Environmental and real-life conditions

### Ambient conditions

Degree of protection	IP20
Ambient temperature (operation)	-40 °C ... 55 °C

## Approvals

### CE

Certificate	CE-compliant
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## Standards and regulations

### Standards

Standards/regulations	NAMUR recommendation NE 21
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## Mounting

Mounting type	DIN rail mounting
Mounting position	any

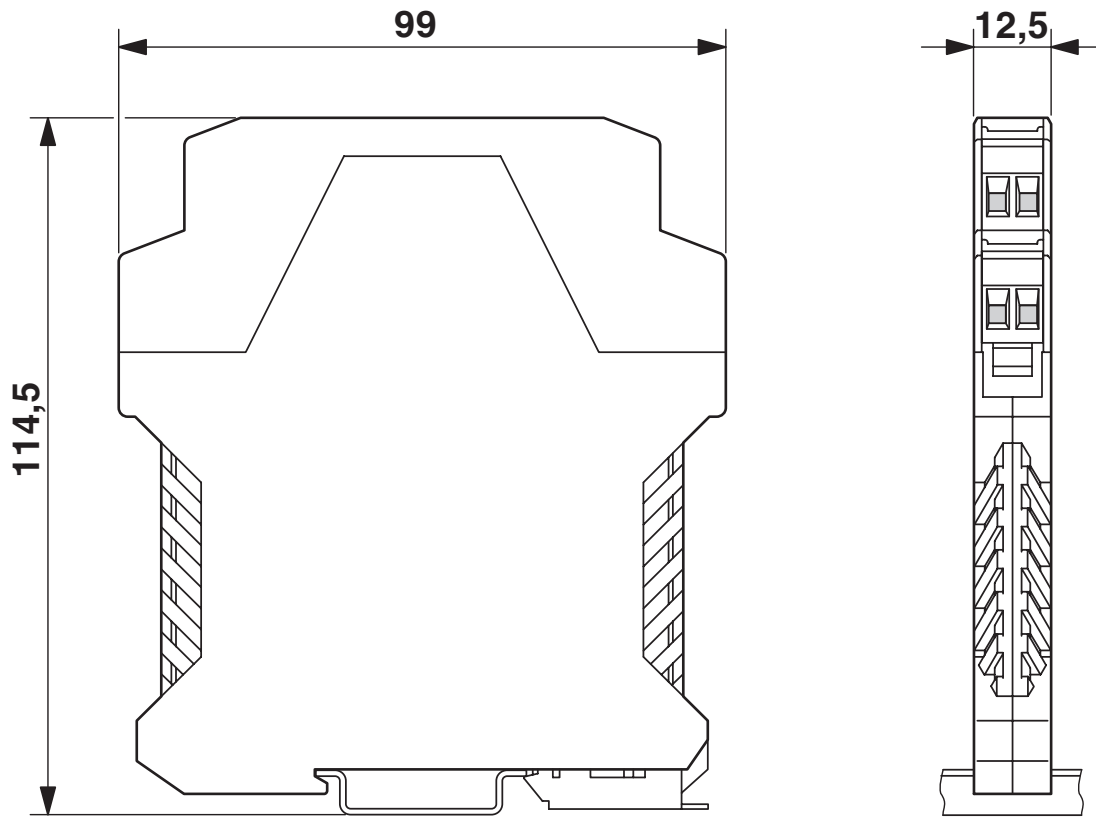
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## Drawings

Dimensional drawing



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## Environmental product compliance

### 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.
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### EU REACH SVHC

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