

MCR-FL-TS-LP-EX/-+200 - Temperature measuring transducer



2905712

<https://www.phoenixcontact.com/us/products/2905712>

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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 ± 200 °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	2905712
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	NULL
Product key	DK1XXX
GTIN	4046356989466
Weight per piece (including packing)	125.6 g
Weight per piece (excluding packing)	125.6 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	$\pm 20 \mu\text{V}$ (-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	$\pm 0.1 \Omega$ (10 ... 400 Ω), $\pm 1.5 \Omega$ (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)

Supply

Max. current consumption	< 3.5 mA
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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	-200 °C ... 200 °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	$\leq 23 \text{ mA}$

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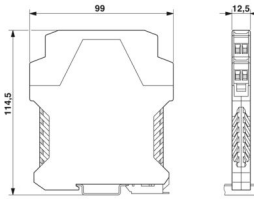
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Output current with short-circuit	≤ 3.6 mA or ≥ 21 mA (adjustable, not for thermocouples)
Output current with wire break	≤ 3.6 mA or ≥ 21 mA (adjustable)
Output current range with overrange/underrange	3.8 mA ... 20.5 mA
Load/output load current output	≤ 520 Ω (At $U_V = 24 \text{ V}$; $U_{\text{supply}} = 12 \text{ V} / 0.023 \text{ A}$)

Connection data

Connection method	Pluggable screw connection
Stripping length	8 mm
Screw thread	M3
Conductor cross-section rigid	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
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

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Standards/regulations	NAMUR recommendation NE 21
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Mounting

Mounting type	DIN rail mounting
Mounting position	any

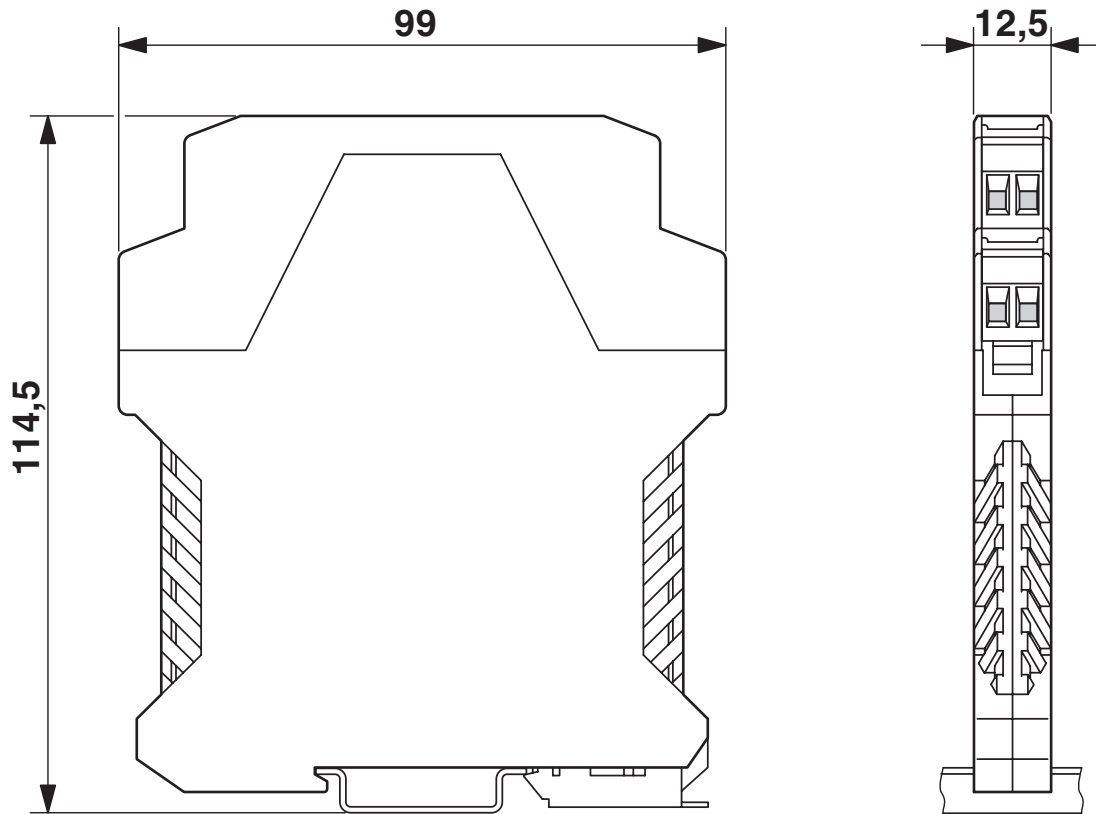
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Drawings

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.

EU REACH SVHC

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