

Temperature measuring transducer - MCR-T-UI - 2814090

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MCR-T module, programmable temperature measuring transducer, configured, for thermocouple sensors and resistance thermometers, with 2, 3, or 4-wire system

Your advantages

- Freely programmable via MCR/PI-CONF-WIN
- With transistor switching output
- Inverse output signal ranges as an option
- For resistance thermometers and thermocouples
- Measure differential temperatures



Key Commercial Data

Packing unit	1 pc
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Technical data

Note

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

Width	17.5 mm
Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
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Input data

Configurable/programmable	Yes, preconfigured
Sensor types (RTD) that can be used	Pt, Ni, Cu sensors
Sensor types that can be used (TC)	U, T, L, J, E, K, N, S, R, B, C, W, HK
Linear resistance measuring range	0 Ω ... 8000 Ω (freely adjustable, min. measuring range 100 Ω)
Sensor input current	250 μA (resistance thermometer)

Temperature measuring transducer - MCR-T-UI - 2814090

Technical data

Input data

Temperature measuring range	Depending on sensor type used
Connection technology	2, 3, 4-wire
Protective circuit	Transient protection
	Surge protection 30 V DC
Connection method	Pluggable screw connection

Output data

Output name	Voltage output
Configurable/programmable	Yes, preconfigured
Voltage output signal	0 V ... 10 V
	0 V ... 5 V
	-5 V ... 5 V
	-10 V ... 10 V
	10 V ... 0 V
	5 V ... 0 V
	10 V ... -10 V
	5 V ... -5 V
	1 V ... 5 V
Current output signal	0 mA ... 20 mA
	4 mA ... 20 mA
	20 mA ... 0 mA
	20 mA ... 4 mA
Max. output voltage	± 12 V
Max. output current	24 mA
Output voltage range with wire break	-12 V ... 12 V
Output current range with wire break	0 A ... 24 mA
Output voltage range with overrange/underrange	-12 V ... 12 V
Output current range with overrange/underrange	0 A ... 24 mA
Load/output load voltage output	≥ 10 kΩ
Load/output load current output	≤ 500 Ω
Ripple	< 20 mV _{PP}
Protective circuit	Transient protection
D/A converter resolution	± 12 bit

Switching output

Output name	Transistor output, pnp
Output description	Can carry a load of 100 mA, switches supply voltage (not protected against short-circuit); locked in case of order-specific configuration, otherwise freely programmable through MCR/PI-CONF-WIN
Output voltage range	18 V DC ... 30 V DC (switches supply voltage, not short-circuit resistant)
Continuous load current	100 mA

Power supply

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Power supply

Supply voltage range	18 V DC ... 30 V DC
Max. current consumption	≤ 60 mA
Typical current consumption	40 mA

General

Maximum transmission error	≤ 0.1 % (of maximum range, ±6 mV or ±12 µA at output)
Maximum temperature coefficient	0.01 %/K
Temperature coefficient, typical	0.005 %/K
Cold point error, max.	≤ 3 K
Typical cold point errors	1.5 K
Test voltage input/output	1 kV (50 Hz, 1 min.)
Test voltage input/power supply	1 kV (50 Hz, 1 min.)
Color	green
Housing material	Polyamide PA non-reinforced
Mounting position	any

Standards and Regulations

Connection in acc. with standard	CUL
Conformance	CE-compliant
UL, USA/Canada	Class I, Div. 2, Groups A, B, C, D or Non-Hazardous Locations
GL	DNV GL

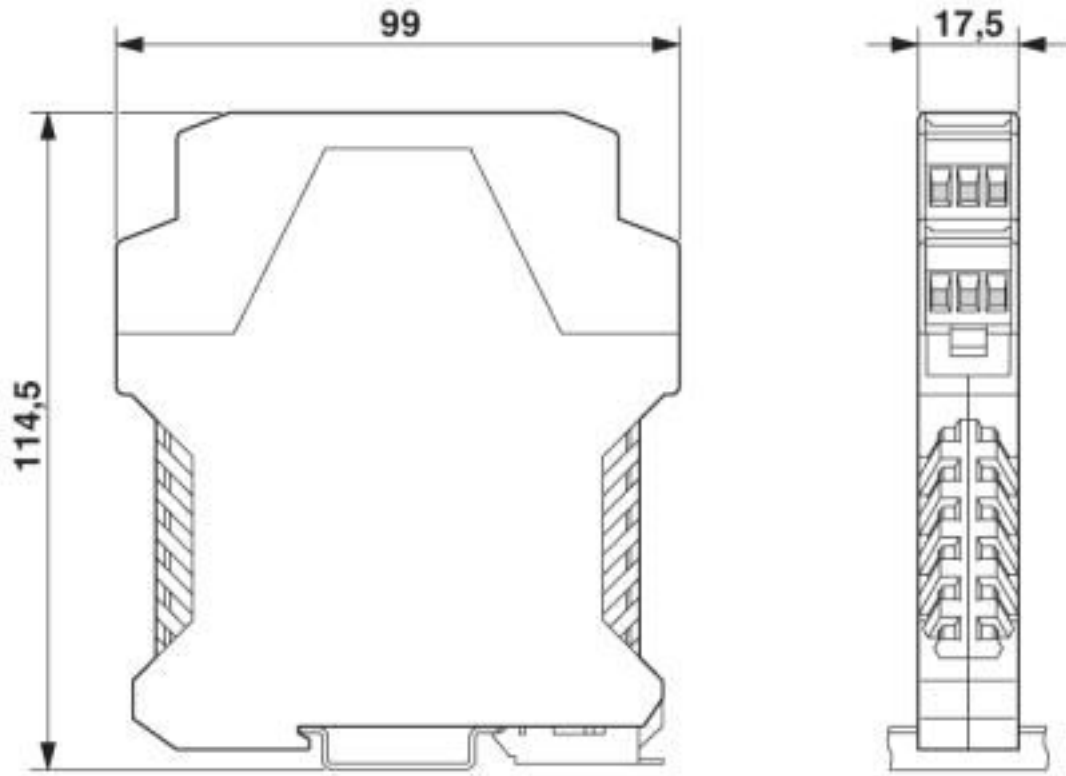
Environmental Product Compliance

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

Drawings

Temperature measuring transducer - MCR-T-UI - 2814090

Dimensional drawing



Classifications

eCl@ss

eCl@ss 10.0.1	27210129
eCl@ss 4.0	27200206
eCl@ss 4.1	27200206
eCl@ss 5.0	27200206
eCl@ss 5.1	27200200
eCl@ss 6.0	27200200
eCl@ss 7.0	27200206
eCl@ss 8.0	27200206
eCl@ss 9.0	27210129

ETIM

ETIM 2.0	EC001446
ETIM 3.0	EC001446
ETIM 4.0	EC001446
ETIM 5.0	EC001446
ETIM 6.0	EC002919

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Classifications

UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	41112105
UNSPSC 19.0	41112105

Accessories

Accessories

Arrester test system

Cable - CM-KBL-RS232/USB - 2881078



Connecting cable D-9-SUB to USB, with adapter D-9-SUB to D-25-SUB.

Programming adapter

Adapter cable - MCR-TTL-RS232-E - 2814388



Software adapter cable (Stereo jack connector/D-SUB 25-pos.), 1.2 m length, for programming MCR-T-..., MCR-S-... and MCR-f-... modules

Mouser Electronics

Authorized Distributor

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