Resistance thermometer measuring transducer - MCR-PT100-I - 2810353

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The illustration shows version MCR-PT100-I-DC

MCR temperature transducer for Pt 100, 2, 3 or 4-wire system, input: 0...100°C, 0...150°C, 0...200°C, 0...300°C -50...+50°C, -50...100°C, -50...150°C, -50...250°C, output signal 0(4)...20 mA

Product Features

- Temperature range can be set via DIP switches
- With electrically isolated supply voltage as an option
- ZERO/SPAN adjustment
- Open circuit detection

Key commercial data

Packing unit	1 pc
GTIN	4 017918 101398
Weight per Piece (excluding packing)	138.5 GRM
Custom tariff number	85437090
Country of origin	Germany

Technical data

Note

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

Dimensions

Width	17.5 mm

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Dimensions

Height	99 mm
Depth	114.5 mm

Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Degree of protection	IP20

Input data

Configurable/programmable	Yes
Sensor types (RTD) that can be used	Pt 100 (IEC 60751/EN 60751)
Sensor input current	approx. 1 mA
Temperature measuring range	0 °C ... 300 °C (0 ... 100/150/200/300)
	-50 °C ... 250 °C (-50 ... 50/100/150/250)
Connection method	2, 3, 4-wire
	Pluggable screw connection

Output data

Output name	Current output
Current output signal	4 mA ... 20 mA
	0 mA ... 20 mA
Max. output current	30 mA
Output current with wire break	> 22 mA
Load/output load current output	≤ 500 Ω

Power supply

Supply voltage range	20 V DC ... 30 V DC
Max. current consumption	45 mA

Connection data

Connection method	Pluggable screw connection
Conductor cross section solid min.	0.2 mm²
Conductor cross section solid max.	2.5 mm²
Conductor cross section AWG min.	24
Conductor cross section AWG max.	14
Conductor cross section flexible min.	0.2 mm²
Conductor cross section flexible max.	2.5 mm²
Stripping length	8 mm
Screw thread	M3

General

Maximum transmission error	≤ 0.4 % (of final value)

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General

Maximum temperature coefficient	≤ 0.02 %/K
Limit frequency (3 dB)	30 Hz
Alignment zero	± 5 %
Alignment span	± 5 %
Step response (10-90%)	11 ms
Test voltage power supply/signal	750 V AC (50 Hz, 1 min.)
Color	green
Housing material	Polyamide PA non-reinforced
Mounting position	any
Conformance	CE-compliant
UL, USA / Canada	UL 508 Recognized

Classifications

eCl@ss

eCl@ss 4.0	27200206
eCl@ss 4.1	27200206
eCl@ss 5.0	27200206
eCl@ss 5.1	27200206
eCl@ss 6.0	27200206
eCl@ss 7.0	27200206
eCl@ss 8.0	27371503

ETIM

ETIM 2.0	EC001446
ETIM 3.0	EC001446
ETIM 4.0	EC001446
ETIM 5.0	EC002568

UNSPSC

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

Approvals

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Approvals

Approvals

UL Recognized / cUL Recognized / EAC / cULus Recognized

Ex Approvals

Approvals submitted

Approval details

UL Recognized

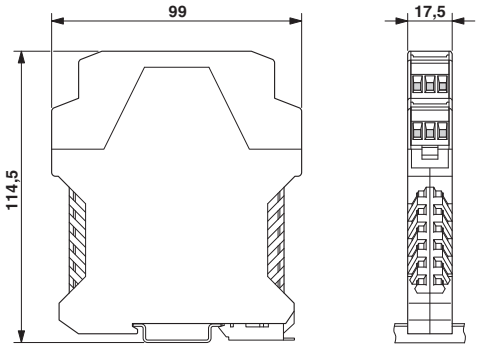
cUL Recognized

EAC

cULus Recognized

Drawings

Dimensional drawing



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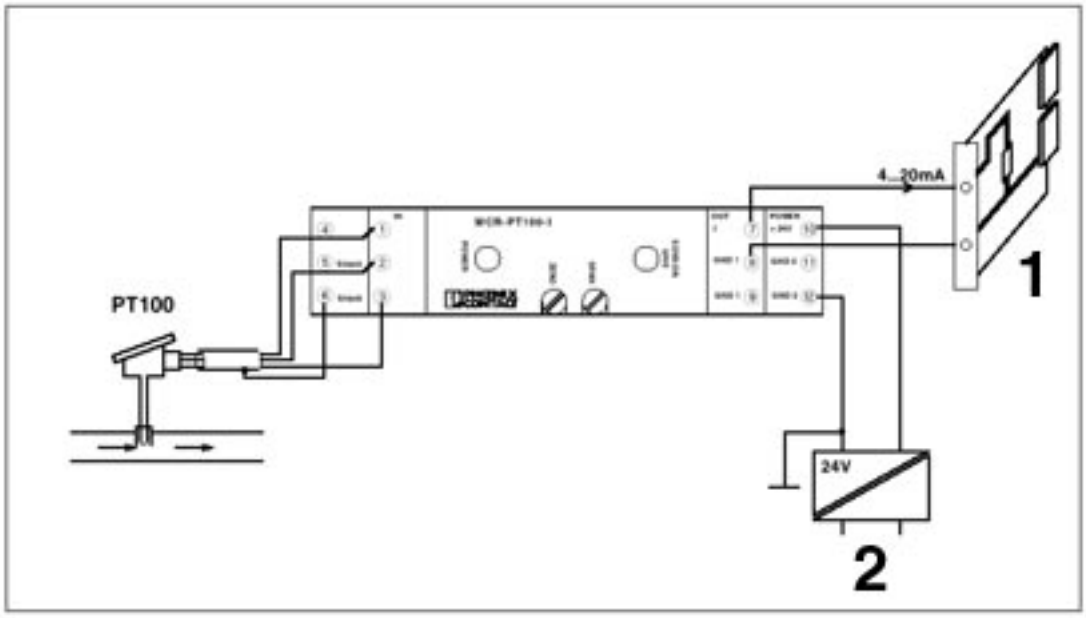
Application drawing



Application example: Temperature measurement with 3-wire system
1 = control
2 = mains voltage

Circuit diagram