

# Temperature measuring transducer - MINI MCR-SL-PT100-LP-NC - 2810308

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Configurable loop-powered temperature transducer for Pt 100 temperature sensors, configured via DIP switches, with screw connection, not pre-configured

## Product Features

- ✓ 2, 3 or 4-wire Pt 100 sensors
- ✓ Highly-compact loop-powered temperature transducer for electrical isolation, conversion, amplification, and filtering of Pt 100 signals to create standard signals
- ✓ Does not require additional auxiliary voltage
- ✓ Error indication via diagnostic LED and analog signal
- ✓ 2-way isolation
- ✓ Input signals can be configured via DIP switches
- ✓ Supplied by an output loop
- ✓ Temperature measuring range of -150°C to +300°C



## Key commercial data

Packing unit	1 pc
Weight per Piece (excluding packing)	80.0 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
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## Technical data

### Dimensions

Width	6.2 mm
Height	93.1 mm
Depth	102.5 mm

### Ambient conditions

Ambient temperature (operation)	-20 °C ... 65 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C
Degree of protection	IP20

### Input data

Configurable/programmable	Yes, unconfigured
Sensor types (RTD) that can be used	Pt 100 (IEC 60751/EN 60751)
Sensor input current	1 mA (constant)
Temperature measuring range	-150 °C ... 300 °C (can be set via DIP switches)
Connection method	2, 3, 4-wire

### Output data

Configurable/programmable	Yes, unconfigured
Current output signal	4 mA ... 20 mA
	20 mA ... 4 mA
Max. output current	23 mA (output limit)
Load/output load current output	( $U_{\text{supply}} - 12 \text{ V}$ ) / 22 mA

### Power supply

Designation	Loop-powered
Supply voltage range	12 V DC ... 30 V DC
Max. current consumption	< 3.5 mA (without signal current)
Power consumption	< 42 mW

### Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	26
Conductor cross section AWG/kcmil max.	12
Conductor cross section stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	2.5 mm <sup>2</sup>
Stripping length	12 mm
Screw thread	M3

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## Technical data

### General

Maximum temperature coefficient	< 0.02 %/K
Linearity error	< 0.05 % (for full measuring range)
Electrical isolation	Basic insulation according to EN 61010
Surge voltage category	II
Pollution degree	2
Rated insulation voltage	50 V AC/DC
Test voltage, input/output/supply	1.5 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Color	green
Housing material	PBT
Mounting position	any
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D T5 applied for

### EMC data

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	5 %
Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	5 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	5 %

## Classifications

### eCl@ss

eCl@ss 4.0	27200206
eCl@ss 4.1	27200206
eCl@ss 5.0	27200206
eCl@ss 5.1	27200206

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## Classifications

### eCl@ss

eCl@ss 6.0	27200206
eCl@ss 7.0	27200206
eCl@ss 8.0	27200206

### ETIM

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

### UNSPSC

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

## Approvals

### Approvals

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#### Approvals

UL Recognized / cUL Recognized / cULus Recognized

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#### Ex Approvals


#### ATEX

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#### Approvals submitted

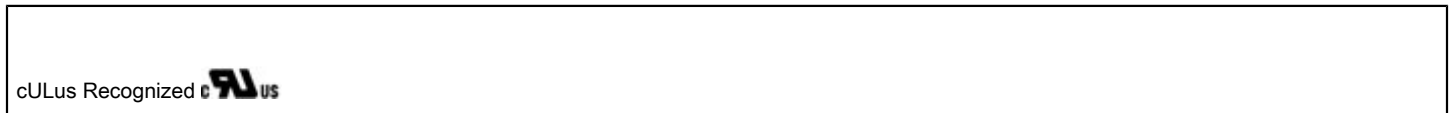
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### Approval details

UL Recognized 
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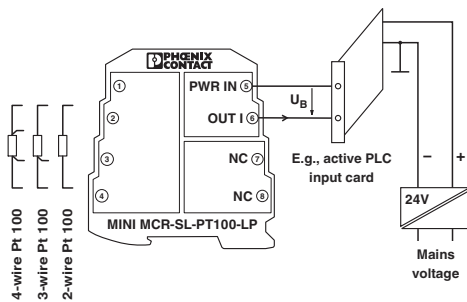
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## Approvals

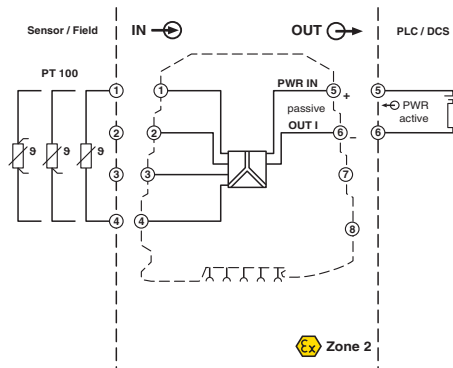


## Drawings

Application drawing



Block diagram



Dimensioned drawing

