

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 _{supply} - 12 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 ² |
| Conductor cross section solid max. | 2.5 mm ² |
| Conductor cross section AWG/kcmil min. | 26 |
| Conductor cross section AWG/kcmil max. | 12 |
| Conductor cross section stranded min. | 0.2 mm ² |
| Conductor cross section stranded max. | 2.5 mm ² |
| Stripping length | 12 mm |
| Screw thread | M3 |

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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

Approvals


UL Recognized / cUL Recognized / cULus Recognized

Ex Approvals

ATEX


Approvals submitted

Approval details

| |
|---|
| UL Recognized  |
|---|

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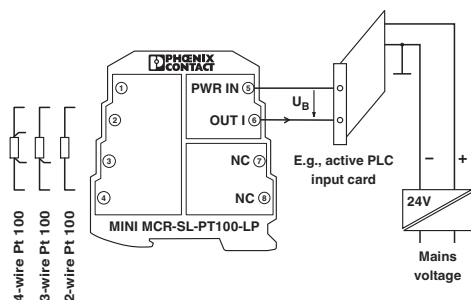
Approvals

cUL Recognized 

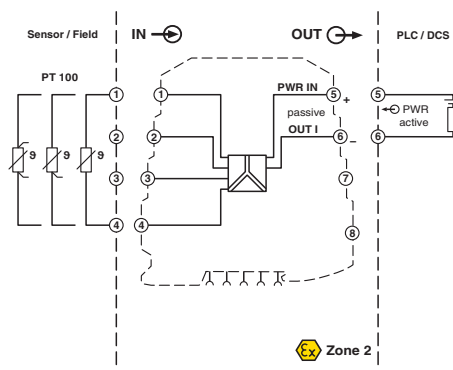
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Drawings

Application drawing



Block diagram



Dimensioned drawing

