

# Temperature measuring transducer - MCR-SL-PT100-LP-I - 2864558

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MCR temperature transducers: programmable loop-powered temperature transducers for Pt 100 resistance thermometers

## Product Features

- ✓ Freely programmable via MCR/PI-CONF-WIN
- ✓ Two-wire transmitter for Pt 100 resistance thermometers



## Key commercial data

|                                      |           |
|--------------------------------------|-----------|
| Packing unit                         | 1 pc      |
| Weight per Piece (excluding packing) | 106.4 GRM |
| Custom tariff number                 | 85437090  |
| Country of origin                    | Germany   |

## Technical data

### Dimensions

|        |          |
|--------|----------|
| Width  | 12.5 mm  |
| Height | 99 mm    |
| Depth  | 114.5 mm |

### Ambient conditions

|                                 |                  |
|---------------------------------|------------------|
| Ambient temperature (operation) | -40 °C ... 85 °C |
| Degree of protection            | IP20             |

### Input data

|                                     |   |
|-------------------------------------|---|
| Configurable/programmable           | Yes, programmable                       |
| Sensor types (RTD) that can be used | Pt 100 ; minimum measurement range 10 K |
| Connection method                   | 2, 3, 4-wire                            |

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## Technical data

### Output data

|  |   |
|--|---|
| Output name                                    | Current output  |
| Current output signal                          | 4 mA ... 20 mA  |
|  | 20 mA ... 4 mA  |
| Output current with wire break                 | ≤ 3.6 mA or ≥ 21 mA (adjustable)                            |
| Output current with short-circuit              | ≤ 3.6 mA or ≥ 21 mA (adjustable)                            |
| Output current range with overrange/underrange | ≤ 20.5 mA / ≥ 3.8 mA (linear increase/decrease)             |
| Load/output load current output                | Max (V <sub>supply</sub> - 12 V) / 0.023 A (current output) |

### Power supply

|                          |                     |
|--------------------------|---------------------|
| Designation              | Loop-powered        |
| Supply voltage range     | 12 V DC ... 35 V DC |
| Max. current consumption | < 3.5 mA            |

### Connection data

|  |                            |
|--|----------------------------|
| Connection method                      | Pluggable 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. | 24                         |
| Conductor cross section AWG/kcmil max. | 24                         |
| Conductor cross section stranded min.  | 0.2 mm <sup>2</sup>        |
| Conductor cross section stranded max.  | 2.5 mm <sup>2</sup>        |
| Stripping length                       | 8 mm                       |
| Screw thread                           | M3                         |

### General

|                           |  |
|---------------------------|--|
| Step response (10-90%)    | < 2 s  |
| Pickup delay              | 4 s  |
| Test voltage input/output | 2 kV (50 Hz, 1 min.)                                 |
| Noise emission            | EN 61 326-1 (IEC 1326) and NAMUR EN 21               |
| Noise immunity            | EN 61 326-1 (IEC 1326) and NAMUR EN 21               |
| Color                     | green  |
| Housing material          | Polyamide PA non-reinforced                          |
| Mounting position         | any  |
| Configuration             | Using MCR-PI-CONF-WIN configuration software package |
| Conformance               | CE-compliant   |
| UL, USA / Canada          | Class I, Div. 2, Groups A, B, C, D                   |

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## 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 | 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 / GOST / cULus Recognized

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#### Ex Approvals

UL Listed / cUL Listed / cUL Listed / cULus Listed / cULus Listed

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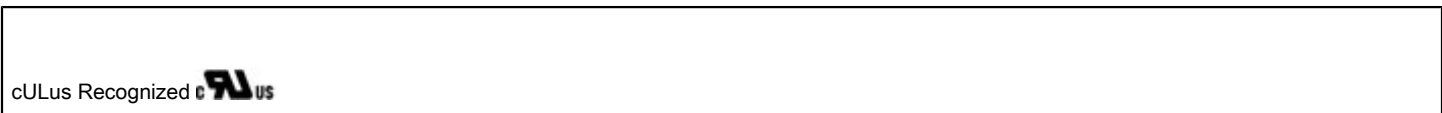
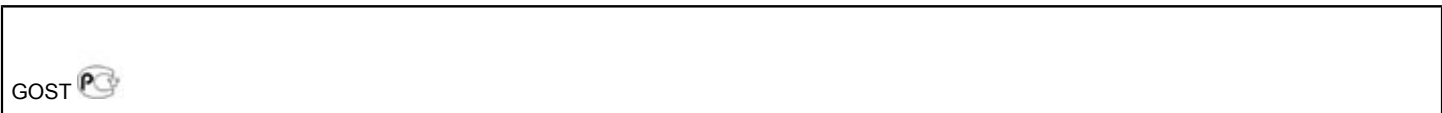
Approvals submitted

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### Approval details

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## Approvals



## Accessories

### Accessories

#### Configuration and diagnostics

Configuration software - MCR/PI-CONF-WIN - 2814799

PI/MCR configuration software for programming PI-EX-RTD..., PI-EX-TC..., MCR-T..., MCR-PSP..., MCR-f..., and MCR-S... modules. This software is available to download free of charge at - phoenixcontact.com.



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### Programming adapter

Programming adapter - MCR-PAC-T-USB - 2309000

Software adapter cable, 2.4 m for programming MCR-...-LP-...- and MCR-...-HT-... modules



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## Accessories

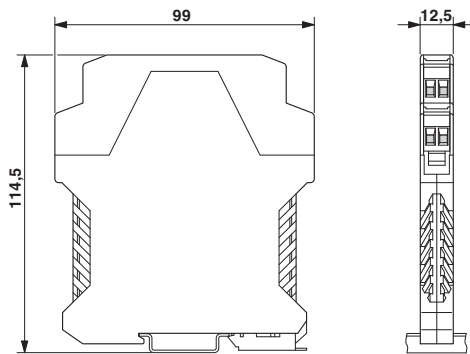
Adapter cable - MCR-PAC-T - 2864590



Software adapter cable, 2.4 m for programming MCR-...-LP-...- and MCR-...-HT-... modules

## Drawings

Dimensioned drawing



Circuit diagram

