

## Head-mounted transducer - MCR-SL-HT-PT 100-I - 2864516

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Measurement and control temperature transducer, for resistance thermometers, thermocouples, resistance-type sensors, and voltage sensors. For Pt 100 resistance temperature detectors.

### Your advantages

- ✓ Freely programmable via MCR/PI-CONF-WIN
- ✓ For installation in connecting head, form B
- ✓ Two-wire transmitter for Pt 100 resistance thermometers

**RoHS**

### Key Commercial Data

|                                      |                                                                                      |
|--------------------------------------|--------------------------------------------------------------------------------------|
| Packing unit                         | 1 pc                                                                                 |
| GTIN                                 |  |
| GTIN                                 | 4017918893217                                                                        |
| Weight per Piece (excluding packing) | 81.020 g                                                                             |
| Custom tariff number                 | 85437090                                                                             |
| Country of origin                    | Germany                                                                              |
| Note                                 | Made to Order (non-returnable)                                                       |

### Technical data

#### Ambient conditions

|                                 |                                         |
|---------------------------------|-----------------------------------------|
| Ambient temperature (operation) | -40 °C ... 85 °C                        |
| Degree of protection            | IP00                                    |
|                                 | IP54 (Installed in the connection head) |
| Noise immunity                  | EN 61326-1 (IEC 61326) and NAMUR NE 21  |

#### Input data

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

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## Technical data

### Output data

|                                                |                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------|
| Output name                                    | Current output                                                            |
| Configurable/programmable                      | Yes                                                                       |
| Current output signal                          | 4 mA ... 20 mA                                                            |
|                                                | 20 mA ... 4 mA                                                            |
| Output current with wire break                 | $\leq 3.6 \text{ mA}$ or $\geq 21 \text{ mA}$ (adjustable)                |
| Output current with short-circuit              | $\leq 3.6 \text{ mA}$ or $\geq 21 \text{ mA}$ (adjustable)                |
| Output current range with overrange/underrange | $\leq 20.5 \text{ mA}$ / $\geq 3.8 \text{ mA}$ (linear increase/decrease) |
| Load/output load current output                | max ( $V_{\text{supply}} - 10 \text{ V}$ ) / 0.023 A (current output)     |

### Power supply

|                          |                     |
|--------------------------|---------------------|
| Designation              | Loop-powered        |
| Supply voltage range     | 10 V DC ... 35 V DC |
| Max. current consumption | < 3.5 mA            |

### Connection data

|                                  |                                              |
|----------------------------------|----------------------------------------------|
| Connection method                | Screw connection                             |
| Stripping length                 | 8 mm                                         |
| Screw thread                     | M3                                           |
| Conductor cross section solid    | 0.2 mm <sup>2</sup> ... 1.75 mm <sup>2</sup> |
| Conductor cross section flexible | 0.2 mm <sup>2</sup> ... 1.75 mm <sup>2</sup> |
| Conductor cross section AWG      | 24 ... 15                                    |

### General

|                                           |                                                      |
|-------------------------------------------|------------------------------------------------------|
| Transmission error resistance thermometer | 0.2 K                                                |
| Step response (10-90%)                    | < 2 s                                                |
| Switch-on delay                           | 4 s                                                  |
| Noise emission                            | EN 61326-1 (IEC 61326) and NAMUR NE 21               |
| Noise immunity                            | EN 61326-1 (IEC 61326) and NAMUR NE 21               |
| Color                                     | green                                                |
| Housing material                          | Polycarbonate, PC                                    |
| Mounting position                         | any                                                  |
| Assembly instructions                     | Connection head according to DIN 43729 form B        |
| Configuration                             | Using MCR-PI-CONF-WIN configuration software package |
| Conformance                               | CE-compliant                                         |
| UL, USA/Canada                            | Class I, Div. 2, Groups A, B, C, D                   |

### Standards and Regulations

|                                  |                                        |
|----------------------------------|----------------------------------------|
| Noise emission                   | EN 61326-1 (IEC 61326) and NAMUR NE 21 |
| Noise immunity                   | EN 61326-1 (IEC 61326) and NAMUR NE 21 |
| Connection in acc. with standard | CUL                                    |
| Conformance                      | CE-compliant                           |
| UL, USA/Canada                   | Class I, Div. 2, Groups A, B, C, D     |

## Head-mounted transducer - MCR-SL-HT-PT 100-I - 2864516

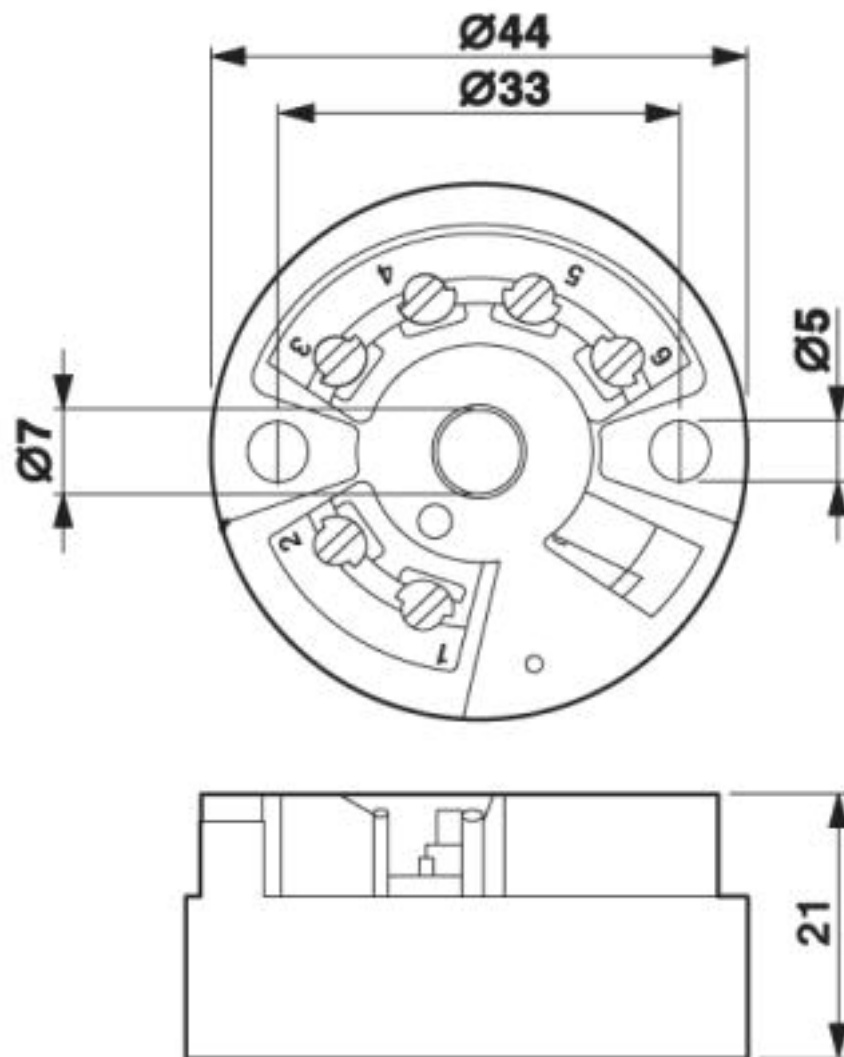
### Technical data

#### Environmental Product Compliance

|            |                                                         |
|------------|---------------------------------------------------------|
| China RoHS | Environmentally friendly use period: unlimited = EFUP-e |
|            | No hazardous substances above threshold values          |

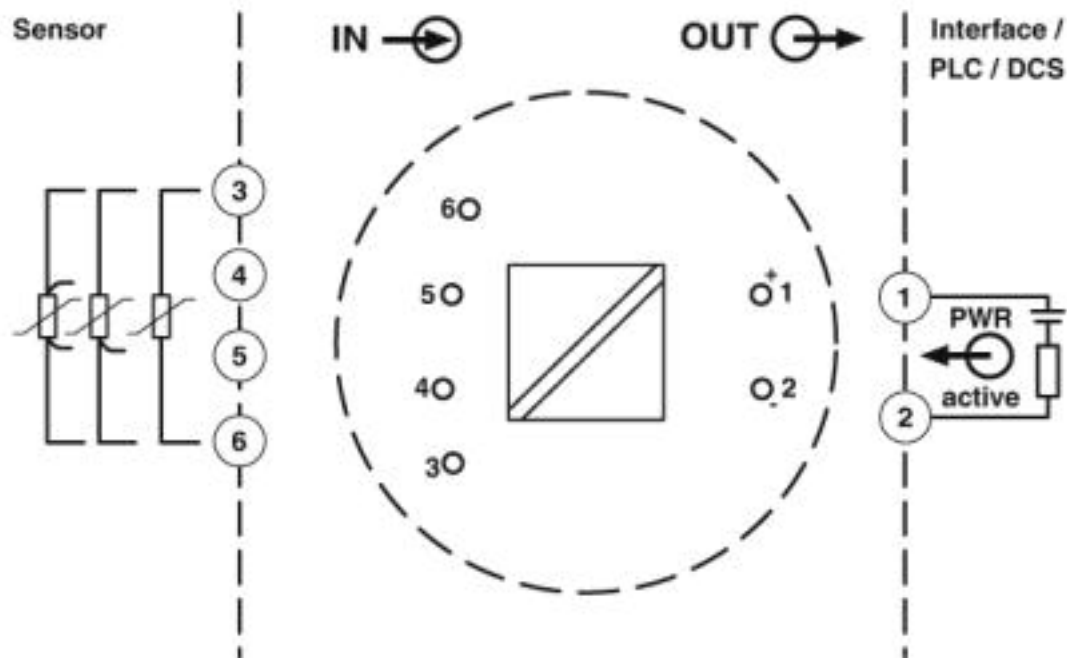
### Drawings

Dimensional drawing



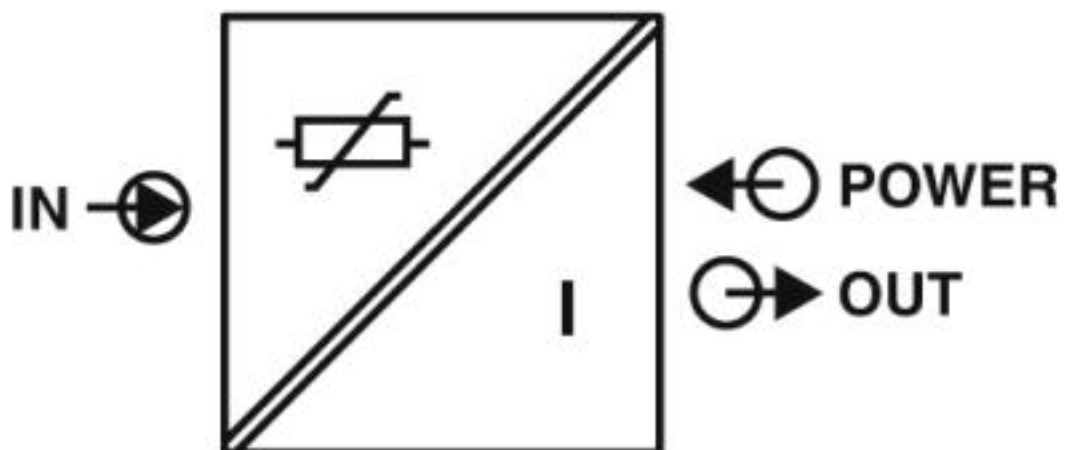
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Block diagram



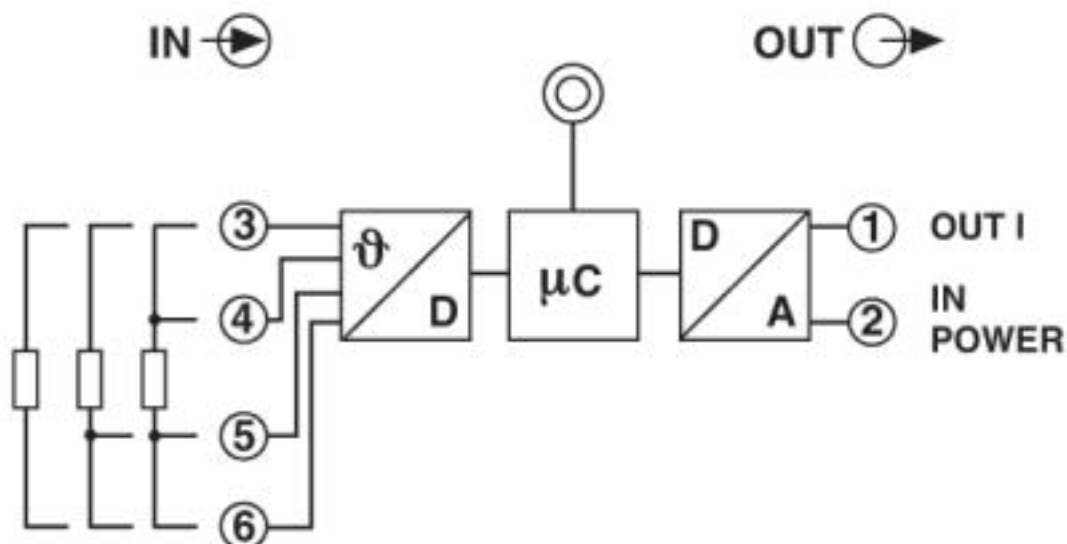
Block diagram MCR-SL-HT-PT 100-I

Pictogram



## Head-mounted transducer - MCR-SL-HT-PT 100-I - 2864516

Circuit diagram



### Classifications

#### eCl@ss

|            |          |
|------------|----------|
| eCl@ss 4.0 | 27200200 |
| eCl@ss 4.1 | 27200200 |
| eCl@ss 5.0 | 27200200 |
| 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 |
| ETIM 7.0 | EC002919 |

#### UNSPSC

|               |          |
|---------------|----------|
| UNSPSC 6.01   | 30211506 |
| UNSPSC 7.0901 | 39121008 |
| UNSPSC 11     | 39121008 |
| UNSPSC 12.01  | 39121008 |
| UNSPSC 13.2   | 41112105 |
| UNSPSC 18.0   | 41112105 |

## Head-mounted transducer - MCR-SL-HT-PT 100-I - 2864516

### Classifications

#### UNSPSC

|             |          |
|-------------|----------|
| UNSPSC 19.0 | 41112105 |
| UNSPSC 20.0 | 41112105 |
| UNSPSC 21.0 | 41112105 |

### Accessories

#### Accessories

##### Mounting rail adapter

Adapter - MCR-DIN-RAIL-ADAPTER HT - 2864671



DIN rail adapter for head-mounted transducers. Suitable for 35 mm DIN rails in accordance with EN 60715.

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#### Programming adapter

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



Programming adapter with USB and T port interface, 2.4 m for programming FA MCR-..., MCR-...-LP-..., and MCR-...-HT-... modules