

# MCR-FL-HT-T-I


Order No.: 2864529



<http://eshop.phoenixcontact.de/phoenix/treeViewClick.do?UID=2864529>

MCR head-mounted temperature transducers: Programmable loop-powered temperature transducers for resistance thermometers, thermocouples, resistance-type sensors and voltage sensors

### Commercial data

|                          |   |
|--------------------------|---|
| GTIN (EAN)               | <br>4 017918 893224 |
| sales group              | H515  |
| Pack                     | 1 pcs.  |
| Customs tariff           | 85437090  |
| Catalog page information | Page 418 (IF-2011)  |

<http://www.download.phoenixcontact.com>  
Please note that the data given here has been taken from the online catalog. For comprehensive information and data, please refer to the user documentation. The General Terms and Conditions of Use apply to Internet downloads.

### Technical data

#### Input data

|                                     |  |
|-------------------------------------|--|
| Configurable/programmable           | Yes, programmable  |
| Sensor types (RTD) that can be used | Pt, Ni (100, 500, 1000); minimum measurement range 10 K  |
| Sensor types that can be used (TC)  | B, C, D, E, J, K, L, N, R, S, T, U; minimum measurement range 50 K/500 K   |
| Linear resistance measuring range   | (Resistance-type sensor from 10 $\Omega$ to 400 $\Omega$ and from 10 $\Omega$ to 2000 $\Omega$ ; minimum measurement range 10 $\Omega$ /100 $\Omega$ ) |
| Connection method                   | 2, 3, 4-wire   |

#### Output data

|             |                |
|-------------|----------------|
| Output name | Current output |
|-------------|----------------|

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|  |  |
|--|--|
| 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, not for thermocouples)      |
| 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> - 8 V) / 0.025 A (current output)) |

#### Power supply

|                          |                    |
|--------------------------|--------------------|
| Name                     | Loop-powered       |
| Supply voltage range     | 8 V DC ... 35 V DC |
| Max. current consumption | < 3.5 mA           |

#### Connection data

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

#### General data

|                                 |  |
|---------------------------------|--|
| Step response (10-90%)          | < 2 s  |
| Pickup delay                    | 6 s  |
| Ambient temperature (operation) | -40 °C ... 85 °C                                     |
| Degree of protection            | IP00, IP66 (integrated in the connecting head)       |
| 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                | 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

**Certificates / Approvals**



Certification

CUL, GOST, UL

Certification Ex:

CUL-EX LIS, UL-EX LIS

**Accessories**

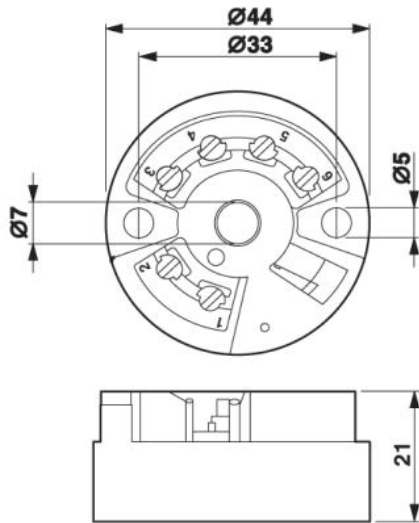
| Item                   | Designation      | Description   |
|------------------------|------------------|---|
| <b>Cable/conductor</b> |                  |   |
| 2881078                | CM-KBL-RS232/USB | Connecting cable D-9-SUB to USB, with adapter D-9-SUB to D-25-SUB.  |
| 2864590                | MCR-PAC-T        | Software adapter cable, 2.4 m for programming MCR-...-LP-...- and MCR-...-HT-... modules  |
| <b>General</b>         |                  |   |
| 2814799                | MCR/PI-CONF-WIN  | PI/MCR configuration software, for programming the PI/Ex-RTD..., PI/Ex-THC..., MCR-T-..., MCR-PSP-..., MCR-f... and MCR-s...modules |

**Diagrams/Drawings**

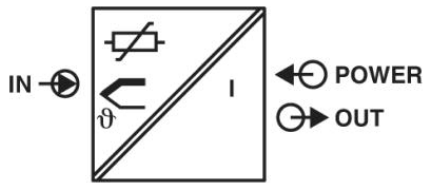
Connection diagram



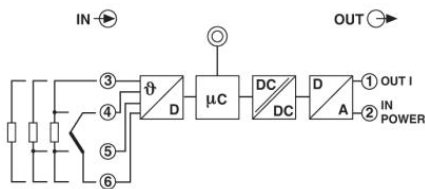
Dimensioned drawing



Pictogram



Circuit diagram



**Address**

PHOENIX CONTACT Inc., USA  
586 Fulling Mill Road  
Middletown, PA 17057, USA  
Phone (800) 888-7388  
Fax (717) 944-1625  
<http://www.phoenixcon.com>



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