

Thermocouple measuring transducer - MINI MCR-2-TC-UI-PT - 2905249

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Configurable temperature transducer with plug-in connection technology for connecting thermocouples. Configurable via DIP switch or software. Push-in connection technology, standard configuration

Product description

Configurable, 3-way isolated temperature transducer with plug-in connection technology. The device is suitable for the connection of thermocouples. The measured values are converted into a linear and freely adjustable current or voltage signal. You can configure the device using one of the free software solutions. Default settings can also be made directly on the device by simply using the DIP switches (see configuration table). The measuring transducer supports fault monitoring and NFC communication.

Product Features



Key commercial data

| | |
|--------------------------------------|-----------|
| Packing unit | 1 pc |
| Weight per Piece (excluding packing) | 100.0 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 |
|-------------------------|---|

Dimensions

| | |
|--------|----------|
| Width | 6.2 mm |
| Height | 110.5 mm |
| Depth | 120.5 mm |

Ambient conditions

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Ambient conditions

| | |
|---|------------------|
| Ambient temperature (operation) | -40 °C ... 70 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Degree of protection | IP20 |

Input data

| | |
|------------------------------------|--|
| Configurable/programmable | Yes |
| Sensor types that can be used (TC) | B, E, J, K, N, R, S, T, L, U, A-1, A-2, A-3, M, L |
| Temperature measuring range | -250 °C ... 2500 °C (Range depends on sensor type, range can be set freely via software or in increments from -150°C to 1350°C via DIP switches) |

Output data

| | |
|---------------------------------|--|
| Number of inputs | 1 |
| Configurable/programmable | Yes |
| Voltage output signal | 0 V ... 5 V (via DIP switch) |
| | 1 V ... 5 V (via DIP switch) |
| | 0 V ... 10 V (via DIP switch) |
| | 10 V ... 0 V (via DIP switch) |
| | 0 V ... 10.5 V (Can be set via software) |
| Current output signal | 0 mA ... 20 mA (via DIP switch) |
| | 4 mA ... 20 mA (via DIP switch) |
| | 20 mA ... 0 mA (via DIP switch) |
| | 20 mA ... 4 mA (via DIP switch) |
| | 0 mA ... 21 mA (Can be set via software) |
| Max. output voltage | approx. 12.3 V |
| Max. output current | 24.6 mA |
| Short-circuit current | < 31.5 mA |
| Load/output load voltage output | ≥ 10 kΩ |
| Load/output load current output | ≤ 600 Ω (at 20 mA) |

Power supply

| | |
|-----------------------------|--|
| Supply voltage range | 9.6 V DC ... 30 V DC (The DIN rail bus connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, Order No. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715)) |
| Typical current consumption | 32.7 mA (at 24 V DC) |
| | 66.8 mA (at 12 V DC) |
| Power consumption | ≤ 850 mW (at I _{OUT} = 20 mA, 9.6 V DC, 600 Ω load) |

Connection data

| | |
|--|----------------------|
| Connection method | Push-in connection |
| Single conductor/terminal point, solid, with ferrule, min. | 0.14 mm ² |

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Connection data

| | |
|---|----------------------|
| Single conductor/terminal point, solid, with ferrule, max. | 2.5 mm ² |
| Single conductor/terminal point, solid, without ferrule, min. | 0.14 mm ² |
| Single conductor/terminal point, solid, without ferrule, max. | 2.5 mm ² |
| Conductor cross section flexible min. | 0.14 mm ² |
| Conductor cross section flexible max. | 2.5 mm ² |
| Min. AWG conductor cross section, flexible | 24 |
| Max. AWG conductor cross section, flexible | 12 |
| Stripping length | 10 mm |

General

| | |
|-----------------------------------|--|
| Maximum temperature coefficient | ≤ 0.01 %/K |
| Typical cold point errors | 2 K (2 K + (0,2 K * ΔT)) |
| Protective circuit | Transient protection |
| Electrical isolation | Reinforced insulation in accordance with IEC 61010-1 |
| Surge voltage category | II |
| Pollution degree | 2 |
| Rated insulation voltage | 300 V |
| Test voltage, input/output/supply | 3 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. |
| Housing material | PBT |
| Mounting position | any |
| Assembly instructions | The T connector can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715. |
| Conformance | CE-compliant |
| ATEX | # II 3 G Ex nA IIC T4 Gc X |
| UL, USA / Canada | UL 508 Listed |
| | Class I, Div. 2, Groups A, B, C, D T6 |
| | Class I, Zone 2, Group IIC T6 |
| GL | GL applied for |

EMC data

| | |
|--|--------------------------|
| Designation | Electromagnetic RF field |
| Standards/regulations | EN 61000-4-3 |
| Typical deviation from the measuring range final value | 0.06 % |
| Designation | Fast transients (burst) |
| Standards/regulations | EN 61000-4-4 |

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EMC data

| | |
|--|-------------------------|
| Typical deviation from the measuring range final value | 0.1 % |
| Designation | Conducted interferences |
| Standards/regulations | EN 61000-4-6 |
| Typical deviation from the measuring range final value | 0.05 % |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 5.1 | 27210120 |
| eCl@ss 6.0 | 27210120 |
| eCl@ss 8.0 | 27371503 |

ETIM

| | |
|----------|----------|
| ETIM 4.0 | EC002653 |
| ETIM 5.0 | EC002568 |

Approvals

Approvals

Approvals

UL Listed / cUL Listed / EAC / cULus Listed

Ex Approvals

ATEX / UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

| |
|---|
| UL Listed  |
|---|

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Approvals

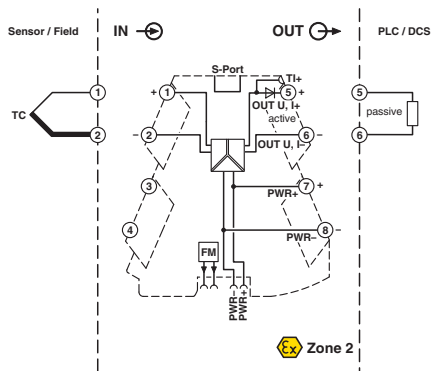
cUL Listed

EAC

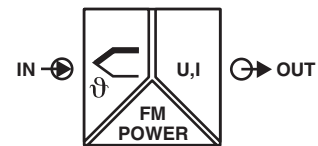
cULus Listed

Drawings

Block diagram



Pictogram





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- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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