

Temperature measuring transducer - MACX PL-T-UIREL-UP-SP - 2904903

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Freely programmable temperature transducer with analog output and 3 limit value relays, standard configuration, resistance thermometer with 2, 3 or 4-conductor technology, thermocouples, electrical isolation, wide-range power supply, spring-cage connection, PLd

The figure shows a version with a screw connection

Product Features



Key commercial data

| | |
|----------------------|----------|
| Packing unit | 1 pc |
| 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 | 35 mm |
| Height | 99 mm |
| Depth | 114.5 mm |

Ambient conditions

| | |
|---|---|
| Ambient temperature (operation) | -20 °C ... 65 °C |
| Ambient temperature (storage/transport) | -40 °C ... 85 °C |
| Maximum altitude | ≤ 2000 m |
| Permissible humidity (operation) | typ. 5 % ... 95 % (non-condensing) |
| Noise immunity | EN 61000-6-2 When being exposed to interference, there may be minimal deviations. |

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Input data

| | |
|-------------------------------------|---|
| Sensor types (RTD) that can be used | Pt, Ni, Cu sensors: 2, 3, 4-wire |
| Sensor types that can be used (TC) | B, E, J, K, N, R, S, T, L, U, CA, DA, A1G, A2G, A3G, MG, LG |
| Temperature measuring range | -200 °C ... 850 °C |
| Input signal range | 0 Ω ... 50 kΩ |
| Potentiometer resistance range | 0 Ω ... 50 kΩ |
| Input signal range | -1000 mV ... 1000 mV |

Output data

| | |
|---|---|
| Current output signal | 4 mA ... 20 mA |
| Max. current output signal | 22 mA |
| Load/output load current output | ≤ 600 Ω (at 20 mA) |
| Behavior in the event of a sensor error | according to NE 43 or freely configurable |
| Output name | Relay output |
| Output description | 1 SIL/PL |
| Contact type | 2 PDT |
| Contact material | AgSnO ₂ , hard gold-plated |
| Maximum switching voltage | 250 V AC (250 V DC) |
| Maximum inrush current | 2 A (250 V AC) |
| | 2 A (28 V DC) |
| | 0.2 A (120 V DC) |

Power supply

| | |
|----------------------|--|
| Supply voltage range | 24 V ... 230 V AC/DC (-20 %/+10 %, 50/60 Hz) |
| Power consumption | < 2.4 W |

Connection data

| | |
|---------------------------------------|---------------------|
| Conductor cross section solid min. | 0.2 mm ² |
| Conductor cross section solid max. | 1.5 mm ² |
| Conductor cross section flexible min. | 0.2 mm ² |
| Conductor cross section flexible max. | 1.5 mm ² |
| Conductor cross section AWG min. | 24 |
| Conductor cross section AWG max. | 16 |
| Connection method | Push-in connection |

General

| | |
|---|--|
| Maximum transmission error | 0.1 % (e.g. for Pt 100, 300 K span, 4 ... 20 mA) |
| Maximum temperature coefficient | 0.01 %/K |
| Inflammability class according to UL 94 | V0 |
| Pollution degree | 2 |

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General

| | |
|------------------------|---|
| Surge voltage category | II |
| Housing material | PA 66-FR |
| Color | yellow |
| Designation | Input/output/power supply |
| Electrical isolation | 300 V _{rms} (Rated insulation voltage (surge voltage category II; pollution degree 2, safe isolation as per EN 61010-1)) |
| | 2.5 kV (50 Hz, 1 min., test voltage) |
| Designation | Input/output |
| Electrical isolation | 375 V (Peak value in accordance with EN 60079-11) |
| Designation | Input/power supply |
| Electrical isolation | 375 V (Peak value in accordance with EN 60079-11) |
| Designation | Input/switching output |
| Electrical isolation | 375 V (Peak value in accordance with EN 60079-11) |
| Conformance | CE-compliant |
| ATEX | # II 3 G Ex nA nC ic IIC T4 Gc X |
| IECEX | Ex nA nC ic 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 |

Classifications

eCl@ss

| | |
|------------|----------|
| eCl@ss 5.1 | 27210107 |
| eCl@ss 6.0 | 27210120 |

ETIM

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

Approvals

Approvals

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UL Listed / cUL Listed / GL / Functional Safety / cULus Listed

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Approvals

Ex Approvals

ATEX / IECEx / UL Listed / cUL Listed / cULus Listed

Approvals submitted

Approval details

UL Listed

cUL Listed

GL

Functional Safety

cULus Listed

Drawings

Block diagram



