

RMPT50BD

Harmony analog, Temperature transmitter,
0..250 °C/32..482 °F, for Universal Pt100
probes



Main

| | |
|---------------------------|--|
| Range of Product | Harmony Analog |
| Product or Component Type | Converter for Universal Pt100 probes |
| Analogue input type | Temperature probe 0...250 °C/32...482 °F Pt 100 2, 3 or 4 wires |
| Analogue output type | Current 0...20 mA <= 500 Ohm Current 4...20 mA <= 500 Ohm Voltage 0...10 V >= 100 kOhm |

Complementary

| | |
|----------------------------------|---|
| Protection Type | Reverse polarity protection on output Short-circuit protection on output Reverse polarity protection on power supply Overvoltage protection on output (+/- 30 V) |
| Abnormal analogue output voltage | -15...-11 V no input or input wire broken 11...15 V no input or input wire broken |
| Abnormal analogue output current | -30...0 MA no input or input wire broken 22...30 mA no input or input wire broken |
| [Us] Rated Supply Voltage | 24 V DC non isolated +/- 20 % |
| Current consumption | <= 40 mA voltage output <= 60 mA current output |
| Local signalling | For power ON LED (green) |
| Measurement error | +/- 0.5 % of full scale 3 or 4 wires)20 °C +/- 1 % of full scale 2 wires)20 °C +/- 10 % of full scale20 °C electromagnetic interference of 10 V/m) |
| Repeat accuracy | +/- 0.2 % full scale 20 °C +/- 0.6 % full scale 60 °C |
| Temperature coefficient | 150 ppm/°C |
| Maximum wiring resistance | 0.2 Ohm 2 wires |
| Clamping connection capacity | 2 x 1.5 mm ² 1 x 2.5 mm ² |
| Tightening torque | 5.31...9.74 lbf.in (0.6...1.1 N.m) |
| Marking | CE |
| Surge withstand | 0.5 kV 1.2/50 µs IEC 61000-4-5 |
| [Ui] rated insulation voltage | 2000 V |
| Fixing mode | Clip-on 35 mm symmetrical DIN rail) Fixed mounting plate) |
| Safety reliability data | B10d = 30437 MTTFd = 32.9 years |
| Net Weight | 0.26 lb(US) (0.12 kg) |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Environment

| | |
|---------------------------------------|--|
| Electromagnetic compatibility | Electrostatic discharge 6 kV contact discharge)level 3 IEC 61000-4-2 Electrostatic discharge 8 kV air discharge)level 3 IEC 61000-4-2 |
| Standards | EN/IEC 60947-1 EN/IEC 60584-1 DIN 43760 EN/IEC 60751 |
| Product Certifications | CSA UL GL |
| IP degree of protection | IP20 terminal block) IP50 housing) |
| Fire resistance | 1562 °F (850 °C) IEC 60695-2-1 1562 °F (850 °C) UL |
| Shock resistance | 50 gn 11 ms IEC 60068-2-27 |
| Vibration resistance | 5 gn 10...100 Hz)IEC 60068-2-6 |
| Resistance to fast transients | 1 KV IEC 61000-4-4 on input-output) 2 kV IEC 61000-4-4 on power supply) |
| Disturbance radiated/conducted | CISPR 11 CISPR 22 group 1 - class B |
| Ambient Air Temperature for Storage | -40...185 °F (-40...85 °C) |
| Ambient Air Temperature for Operation | 32...122 °F (0...50 °C) mounting side by side 32...140 °F (0...60 °C) 2 cm spacing |
| Pollution degree | 2 IEC 60664-1 |




Ordering and shipping details

| | |
|-----------------------|-----------------------------------|
| Category | 22375 - INTERFACE MODULE(ABA,R,S) |
| Discount Schedule | CP2 |
| GTIN | 3389110108989 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 3.74 oz (106 g) |
| Returnability | No |
| Country of origin | ID |

Packing Units

| | |
|------------------------------|-------------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 1.06 in (2.7 cm) |
| Package 1 width | 3.23 in (8.2 cm) |
| Package 1 Length | 3.35 in (8.5 cm) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 47 |
| Package 2 Weight | 11.94 lb(US) (5.416 kg) |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |

Offer Sustainability

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|----------------------------|--|
| Sustainable offer status | Green Premium product |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Nickel compounds, which is known to the State of California to cause cancer, and Di-isodecyl phthalate (DIDP), which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |
| REACH Regulation |  REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope)  EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information |  Yes |

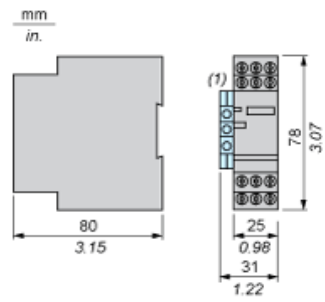
| | |
|--------------------------|--|
| China RoHS Regulation | China RoHS Declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins. |

Contractual warranty

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|----------|-----------|
| Warranty | 18 months |
|----------|-----------|

Analog Interface (Converter)

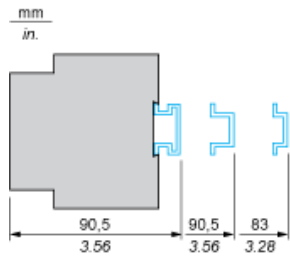
Dimensions



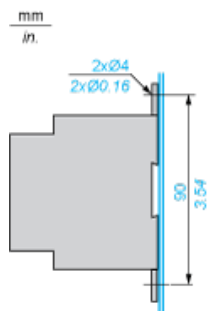
(1) Terminal block AB1TP435U or AB1RRNTP435U2

Mounting

Mounting on Rails AM1•••••

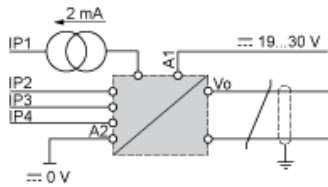


Panel Mounting



Analogue Interface: Converter for Universal Pt100 Probe

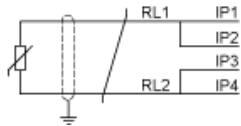
Wiring Diagram



The input, output and power supply lines must be kept away from the power cables to avoid effects due to induced interference. The input and output cables must be shielded as indicated in the schemes and must be kept away from each other.

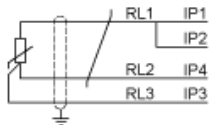
Input Connections

2-wire type



$$RL1 + RL2 \leq 200 \text{ m}\Omega$$

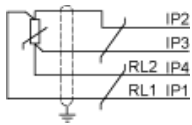
3-wire type



$$RL1 = RL2 = RL3$$

$$RL1 + RL2 \geq 200 \text{ }\Omega$$

4-wire type



$$RL1 + RL2 \leq 200 \text{ }\Omega$$