

## Product data sheet

### Characteristics

# RMPT33BD

Harmony analog, Temperature transmitter, 0..100 °C/32..212 °F, for Optimum Pt100 probes



### Main

Range of product	Harmony Analog
Product or component type	Converter for Optimum Pt100 probes
Analogue input type	Temperature probe 0...100 °C/32..212 °F Pt 100 2, 3 or 4 wires
Analogue output type	Current 4...20 mA $\leq$ 500 Ohm Voltage 0...10 V $\geq$ 100 kOhm

### Complementary

Protection type	Short-circuit protection on output Reverse polarity protection on output Overvoltage protection on output (+/- 30 V) Reverse polarity protection on power supply
Abnormal analogue output voltage	-15...-11 V when no input or input wire broken 11...15 V when no input or input wire broken
Abnormal analogue output current	-30...0 MA when no input or input wire broken 22...30 mA when no input or input wire broken
[Us] rated supply voltage	24 V DC non isolated +/- 20 %
Current consumption	$\leq$ 40 mA for voltage output $\leq$ 60 mA for current output
Local signalling	LED (green) for power ON
Measurement error	+/- 0.5 % of full scale (3 or 4 wires) at 20 °C +/- 1 % of full scale (2 wires) at 20 °C +/- 10 % of full scale at 20 °C (electromagnetic interference of 10 V/m)
Repeat accuracy	+/- 0.2 % full scale at 20 °C +/- 0.6 % full scale at 60 °C
Temperature coefficient	150 ppm/°C
Maximum wiring resistance	0.2 Ohm connection in 2 wires
Clamping connection capacity	2 x 1.5 mm <sup>2</sup> 1 x 2.5 mm <sup>2</sup>
Tightening torque	0.6...1.1 N.m
Marking	CE
Surge withstand	0.5 kV during 1.2/50 $\mu$ s conforming to 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	MTTFd = 43.9 years B10d = 40564
Product weight	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 - test level: 6 kV level 3 (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV level 3 (air discharge) conforming to IEC 61000-4-2
Standards	DIN 43760 EN/IEC 60584-1 EN/IEC 60751 EN/IEC 60947-1
Product certifications	UL GL CSA
IP degree of protection	IP20 (terminal block) IP50 (housing)
Fire resistance	850 °C conforming to IEC 60695-2-1 850 °C conforming to UL
Shock resistance	50 gn for 11 ms conforming to IEC 60068-2-27
Vibration resistance	5 gn (f= 10...100 Hz) conforming to IEC 60068-2-6
Resistance to fast transients	1 kV (on input-output) conforming to IEC 61000-4-4 2 kV (on power supply) conforming to IEC 61000-4-4
Disturbance radiated/conducted	CISPR 22 group 1 - class B CISPR 11
Ambient air temperature for storage	-40...85 °C
Ambient air temperature for operation	0...50 °C mounting side by side 0...60 °C 2 cm spacing
Pollution degree	2 conforming to IEC 60664-1

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	109 g
Package 1 Height	2.7 cm
Package 1 width	8.2 cm
Package 1 Length	8.5 cm
Unit Type of Package 2	S02
Number of Units in Package 2	47
Package 2 Weight	5.596 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

## Contractual warranty

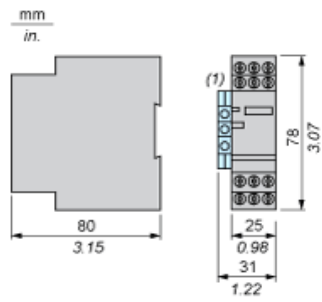
Warranty	18 months
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Analog Interface (Converter)

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Dimensions



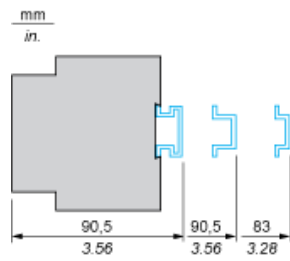
(1) Terminal block AB1TP435U or AB1RRNTP435U2

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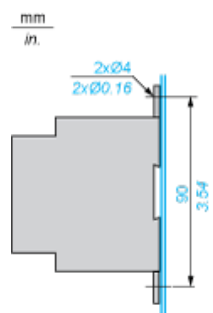
## Mounting

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### Mounting on Rails AM1•••••

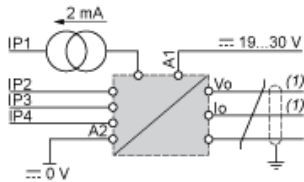


### Panel Mounting



Analog Interface: Converter for Optimum Pt100 Probe

Wiring Diagram

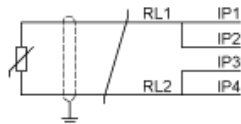


(1) Use 1 output only.

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.

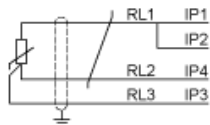
Input Connections

2-wire type



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

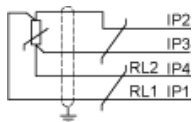
3-wire type



$$RL1 = RL2 = RL3$$

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

4-wire type



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