

# RMPT53BD

Harmony analog, Temperature transmitter,  
0..250 °C/32..482 °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...250 °C/32...482 °F Pt 100 2, 3 or 4 wires
Analogue output type	Current 4...20 mA <= 500 Ohm Voltage 0...10 V >= 100 kOhm

## Complementary

Protection Type	Short-circuit protection on output Reverse polarity protection on power supply Overvoltage protection on output (+/- 30 V) Reverse polarity protection on output
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 scale)20 °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	1 x 2.5 mm <sup>2</sup> 2 x 1.5 mm <sup>2</sup>
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	MTTFd = 43.9 years B10d = 40564
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	DIN 43760 EN/IEC 60751 EN/IEC 60947-1 EN/IEC 60584-1
Product Certifications	UL CSA 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 22 group 1 - class B CISPR 11
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	3389110108996
Nbr. of units in pkg.	1
Package weight(Lbs)	3.60 oz (102 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	11.57 lb(US) (5.25 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

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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
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

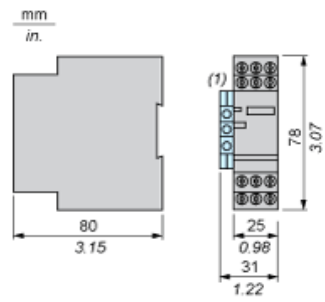
Warranty	18 months
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Analog Interface (Converter)

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Dimensions



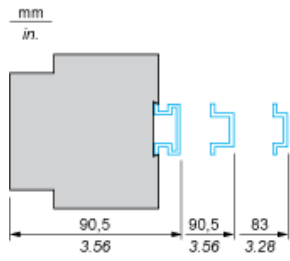
(1) Terminal block AB1TP435U or AB1RRNTP435U2

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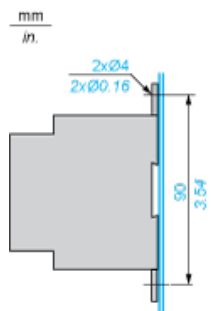
Mounting

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Mounting on Rails AM1•••••

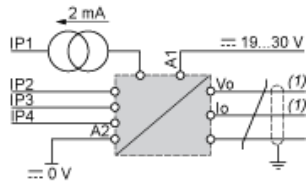


Panel Mounting



Analogue Interface: Converter for Optimum Pt100 Probe

Wiring Diagram

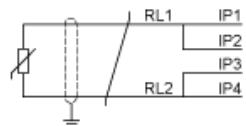


(1) Use 1 output only.

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.

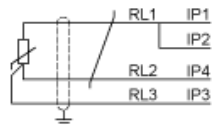
Input Connections

2-wire type



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

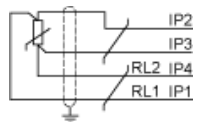
3-wire type



$$RL1 = RL2 = RL3$$

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

4-wire type



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