

Product data sheet

Specifications



Converter for Optimum Pt100 probes, Harmony Analog, temperature transmitter, 0...250 degree COr 32...482 degree F

RMPT53BD

Product availability: Non-Stock - Not normally stocked in distribution facility

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 temporary performance degradation when subject to electromagnetic interference) +/- 1 % of full scale 2 wires)20 °C
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 mm² 2 x 1.5 mm²
Tightening torque	5.3...9.7 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

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: 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

Product Weight	0.26 lb(US) (0.12 kg)
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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 IEC 60751 IEC 60947-1 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 (f= 10...100 Hz) conforming to 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	US10CP222375
Discount Schedule	0CP2
GTIN	3389110108996
Returnability	No
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	1.06 in (2.700 cm)
Package 1 Width	3.23 in (8.200 cm)
Package 1 Length	3.35 in (8.500 cm)
Package 1 Weight	3.594 oz (101.900 g)
Unit Type of Package 2	S02
Number of Units in Package 2	47
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)

Package 2 Weight	11.574 lb(US) (5.250 kg)
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Contractual warranty

Warranty	18 months
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint	
Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	A23b5c8f-6893-4fd3-af99-564158dacf76
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

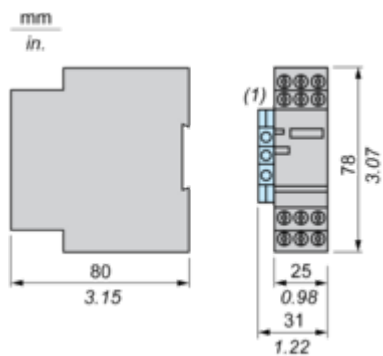
Use Again

Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

Analog Interface (Converter)

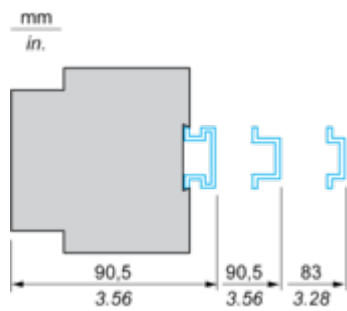
Dimensions



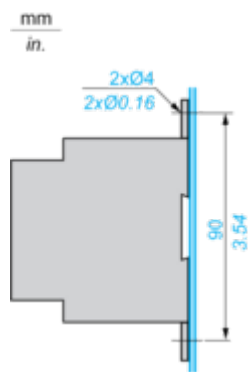
Mounting and Clearance

Mounting

Mounting on Rails AM1.....



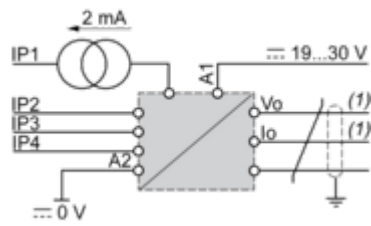
Panel Mounting



Connections and Schema

Analog Interface: Converter for Optimum Pt100 Probe

Wiring Diagram



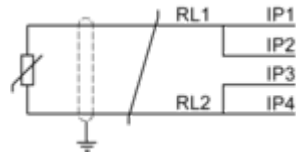
(1) Use 1 output only.

The input, output and power supply lines must be kept away from the power cables to avoid effects due to induced interference.

The supply, input and output cables must be shielded as indicated in the schemes and must be kept away from each other.

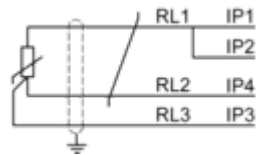
Input Connections

2-wire type



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

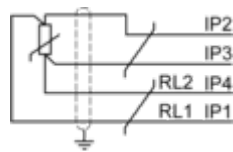
3-wire type



$$RL1 = RL2 = RL3$$

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

4-wire type



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

Technical Illustration

Dimensions

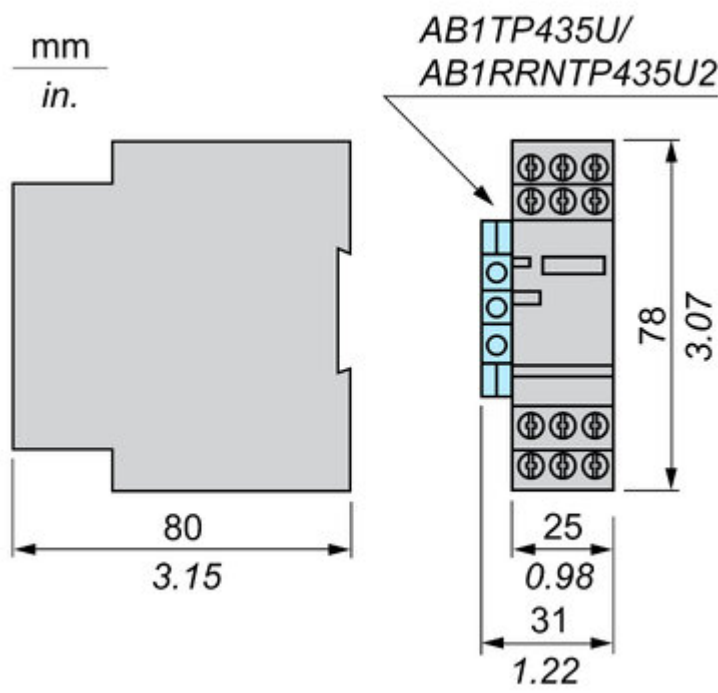


Image of product / Alternate images

Alternative





