Product datasheet

Specifications

Converter for Optimum Pt100 probes, Harmony Analog, temperature transmitter, 0...100 degree COr 32...212 degree F

RMPT33BD

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 <= 500 Ohm Voltage 0...10 V >= 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	<= 40 mA for voltage output <= 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 (temporary performance degradation when subject to electromagnetic interference) +/- 1 % of full scale (2 wires) at 20 °C (temporary performance degradation when subject to electromagnetic interference)
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 mm² 1 x 2.5 mm²
Tightening Torque	0.6…1.1 N.m
Marking	CE
Surge Withstand	0.5 kV during 1.2/50 µs 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
Net Weight	0.12 kg

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

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 60584-1 IEC 60751 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 Height	2.7 cm
Package 1 Width	8.2 cm
Package 1 Length	8.5 cm
Package 1 Weight	109.0 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	47
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	5.596 kg

Contractual warranty

Warranty	18 months

Sustainability

Green Premium™ label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

Well-being performance

Mercury Free

Rohs Exemption Information	Yes

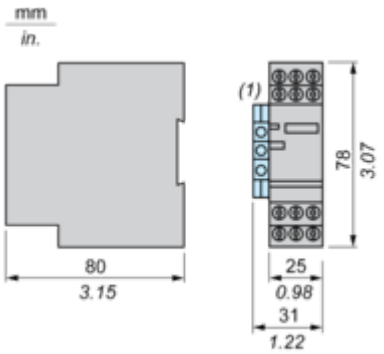
Certifications & Standards

Reach Regulation	REACh Declaration
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	End of Life Information

Dimensions Drawings

Analog Interface (Converter)

Dimensions

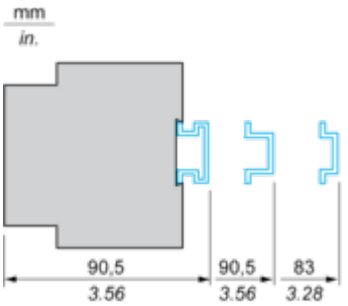


(1) Terminal block AB1TP435U or AB1RRNTP435U2

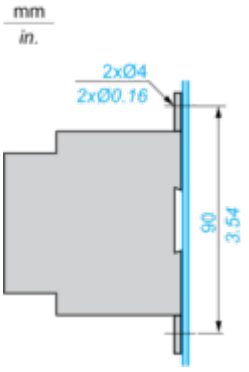
Mounting and Clearance

Mounting

Mounting on Rails AM1•••••



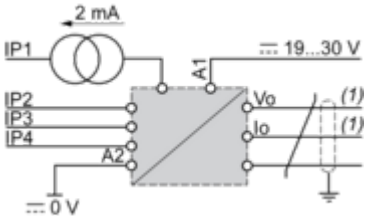
Panel Mounting



Connections and Schema

Analog Interface: Converter for Optimum Pt100 Probe

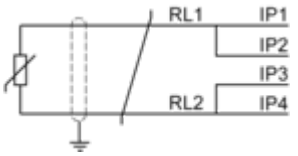
Wiring Diagram



(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.

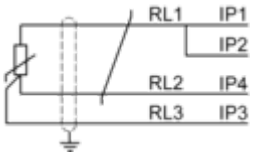
Input Connections

2-wire type



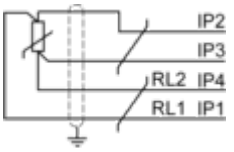
RL1 + RL2 ≤ 200 mΩ

3-wire type



RL1 = RL2 = RL3
RL1 + RL2 ≥ 200 Ω

4-wire type



RL1 + RL2 ≤ 200 Ω