Specifications

#### Green Premium<sup>™</sup>



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

RMPT53BD

### Main

wam	
range of product	Harmony Analog
product or component type	Converter for Optimum Pt100 probes
Analogue input type	Temperature probe 0250 °C/32482 °F Pt 100 2, 3 or 4 wires
Analogue output type	Current 420 mA <= 500 Ohm Voltage 010 V >= 100 kOhm

### Complementary

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	-1511 V when no input or input wire broken 1115 V when no input or input wire broken
abnormal analogue output current	-300 mA when no input or input wire broken 2230 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
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	1 x 2.5 mm <sup>2</sup> 2 x 1.5 mm <sup>2</sup>
Tightening torque	0.61.1 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

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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	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= 10100 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	-4085 °C
Ambient air temperature for operation	050 °C mounting side by side 060 °C 2 cm spacing
Pollution degree	2 conforming to IEC 60664-1

# **Packing Units**

0	
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	102.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	47
Package 2 Height	15 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	5.25 kg
Unit Type of Package 3	P06
Number of Units in Package 3	752
Package 3 Height	75 cm
Package 3 Width	40 cm
Package 3 Length	80 cm
Package 3 Weight	101.704 kg

# **Contractual warranty**

Warranty

18 months

# Sustainability Screen Premium

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

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

Yes

Learn more about Green Premium >

Guide to assess a product's sustainability >



Transparency RoHS/REACh

### Well-being performance



Rohs Exemption Information

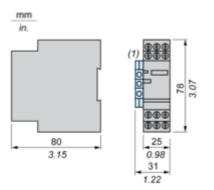
### **Certifications & Standards**

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

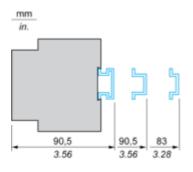


(1) Terminal block AB1TP435U or AB1RRNTP435U2

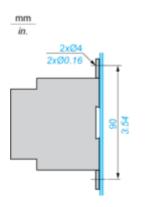
Mounting and Clearance

#### Mounting

#### Mounting on Rails AM1 .....



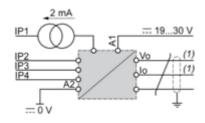
#### **Panel Mounting**



### Connections and Schema

### Analog Interface: Converter for Optimum Pt100 Probe

### Wiring Diagram



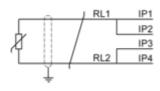
(1) Use 1 output only.

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

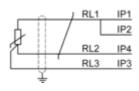
The supply, input and output cables must be shielded as indicated in the schemes and must be kept away from each other.

#### Input Connections

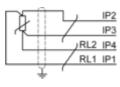
#### 2-wire type



RL1 + RL2 ≤ 200 mΩ 3-wire type



RL1 = RL2 = RL3 $RL1 + RL2 \ge 200 \Omega$ 4-wire type



 $\mathsf{RL1}+\mathsf{RL2} \leq 200~\Omega$ 

#### **Technical Illustration**

#### Dimensions

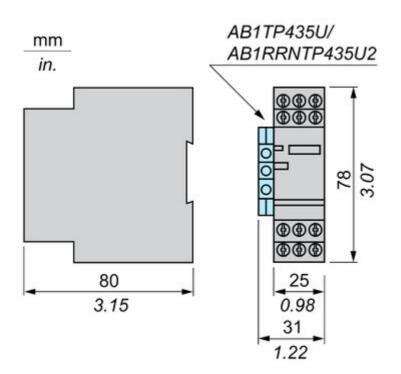


Image of product / Alternate images

Alternative











