

Converter for Optimum Pt100 probes, Harmony Analog, temperature transmitter, 100...100 degree COr 148...212 degree F

RMPT23BD

## Main

Range of product	Harmony Analog	
Product or component type	Converter for Optimum Pt100 probes	
Analogue input type	Temperature probe - 100100 °C/- 148212 °F Pt 100 2, 3 or 4 wires	
Analogue output type	Voltage 010 V >= 100 kOhm	

## Complementary

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Protection type	Reverse polarity protection on power supply Overvoltage protection on output (+/- 30 V) Reverse polarity protection on output Short-circuit 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	2 x 1.5 mm <sup>2</sup> 1 x 2.5 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	B10d = 40564 MTTFd = 43.9 years	
Product weight	0.12 kg	

## **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	IEC 60947-1 IEC 60584-1	
	DIN 43760	
	IEC 60751	
Product certifications	CSA	
	UL	
	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**

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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	108.0 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	5.584 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	106.216 kg

# **Contractual warranty**

Warranty

18 months



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 >

#### **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	
End of life manual availability	End of Life Information
Take-back	No

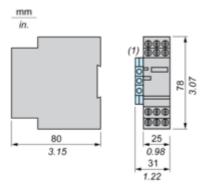
# **Product data sheet**

## RMPT23BD

**Dimensions Drawings** 

## Analog Interface (Converter)

### **Dimensions**



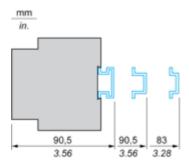
(1) Terminal block AB1TP435U or AB1RRNTP435U2

# RMPT23BD

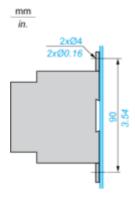
Mounting and Clearance

## Mounting

## Mounting on Rails AM1 \*\*\*\*\*



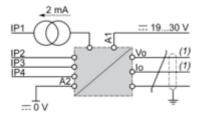
## **Panel Mounting**



#### Connections and Schema

### **Analog Interface: Converter for Optimum Pt100 Probe**

## Wiring Diagram



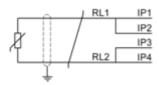
### (1) Use 1 output only.

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

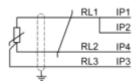
The supply, input and output cables must be shielded as indicated in the schemes and must be kept away from each other.

#### **Input Connections**

#### 2-wire type

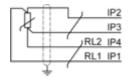


RL1 + RL2  $\leq$  200 m $\Omega$ 3-wire type



RL1 = RL2 = RL3 RL1 + RL2  $\geq$  200  $\Omega$ 

#### 4-wire type



RL1 + RL2  $\leq$  200  $\Omega$ 

**Technical Illustration** 

#### **Dimensions**

