

Converter for thermocouples, Harmony Analog, temperature transmitter, 0...1200 degree COr 32...2192 degree F

RMTK90BD

### Main

Range Of Product	Harmony Analog
Product Or Component Type	Converter for thermocouples
Analogue Input Type	Thermocouple 01200 °C/322192 °F thermocouple K conforming to IEC 60584
Analogue Output Type	Current 020 mA <= 500 Ohm Current 420 mA <= 500 Ohm Voltage 010 V >= 100 kOhm

## Complementary

Protection Type	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
[Us] Rated Supply Voltage	24 V DC +/- 20 %, non isolated
Current Consumption	<= 40 mA for voltage <= 40 mA for voltage output <= 60 mA for current
Local Signalling	LED (green) for power ON
Measurement Error	+/- 1 % of full scale at 20 °C (temporary performance degradation when subject to electromagnetic interference)
Repeat Accuracy	+/- 0.25 % full scale at 20 °C +/- 0.8 % full scale at 60 °C
Temperature Coefficient	200 ppm/°C
Cold Junction Compensation	Built-in, measurement: between 0 and 60 °C
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	2 kV
Fixing Mode	By screws (mounting plate) Clip-on (35 mm symmetrical DIN rail)
Safety Reliability Data	MTTFd = 49.2 years B10d = 45447
Net Weight	0.12 kg

## **Environment**

Standards	IEC 60584-1
	IEC 60947-1
Product Certifications	GL
	UL
	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
	30 girlioi 11 mis comorning to iEC 00000-2-27
Vibration Resistance	5 gn (f= 10100 Hz) conforming to IEC 60068-2-6
Resistance To Electrostatic	6 kV (in contact) conforming to IEC 61000-4-2 level 3
Discharge	8 kV (in air) conforming to IEC 61000-4-2 level 3
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 11
	CISPR 22 group 1 - class B
Ambient Air Temperature For	-4085 °C
Storage	
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**

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	101.0 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	5.253 kg

## **Contractual warranty**

Warranty 18 months

## **Sustainability**

**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.

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
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

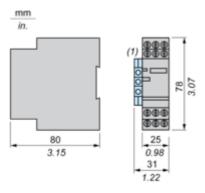
## **Product data sheet**

## RMTK90BD

**Dimensions Drawings** 

### Analog Interface (Converter)

### **Dimensions**



(1) Terminal block AB1TP435U or AB1RRNTP435U2

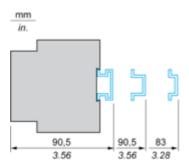
# Product data sheet

## RMTK90BD

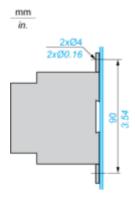
Mounting and Clearance

### Mounting

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



### **Panel Mounting**



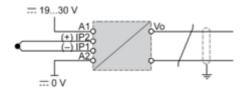
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### RMTK90BD

### Connections and Schema

### **Analog Interfaces**

### Wiring Diagram



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.