RMTK90BD

temperature transmitter - 0..1200 °C/32..2192 °F - for thermocouples K



Main Range of product Product or component type Analogue input type Thermocouple 0...1200 °C/32...2192 °F thermocouple K conforming to IEC 60584 Analogue output type Voltage 0...10 V >= 100 kOhm Current 4...20 mA <= 500 Ohm Current 0...20 mA <= 500 Ohm

Complementary

Protection type	Overvoltage protection on output (+/- 30 V)
,,	Reverse polarity protection on output
	Short-circuit protection on output
Abnormal analogue output voltage	- 13 V when no input wired or wire broken
Abnormal analogue output current	0 A when no input wired or wire broken
[Us] rated supply voltage	24 V DC +/- 20 %, non isolated
Current consumption	<= 60 mA for current
	<= 40 mA for voltage output
	<= 40 mA for voltage
Local signalling	LED green (power ON)
Measurement error	+/- 10 % of full scale at 20 °C (electromagnetic interference of 10 V/m)
	+/- 1 % of full scale at 20 °C
Repeat accuracy	+/- 0.8 % full scale at 60 °C
	+/- 0.25 % full scale at 20 °C
Temperature coefficient	200 ppm/°C
Cold junction compensation	Built-in, measurement: between 0 and 60 °C
Clamping connection capacity	1 x 2.5 mm ²
	2 x 1.5 mm ²
Tightening torque	0.61.1 N.m
Marking	CE
Surge withstand	0.5 kV for 1.2/50 μs conforming to IEC 61000-4-5
[Ui] rated insulation voltage	2 kV
Fixing mode	Clip-on, 35 mm symmetrical DIN rail
	By screws, mounting plate
Product weight	0.12 kg
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Environment

Standards	IEC 60584-1	
	IEC 60947-1	
Product certifications	CSA	
	GL	
	UL	
IP degree of protection	IP50 housing	
	IP20 terminal block	
Fire resistance	850 °C conforming to UL	
	850 °C conforming to IEC 60695-2-1	
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	

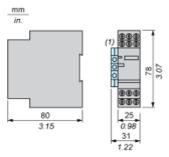
Resistance to electrostatic discharge	8 kV (in air) conforming to IEC 61000-4-2 level 3 6 kV (in contact) conforming to IEC 61000-4-2 level 3
Resistance to fast transients	2 kV on power supply conforming to IEC 61000-4-4 1 kV on input-output conforming to IEC 61000-4-4
Disturbance radiated/conducted	CISPR 11 CISPR 22 group 1 - class B
Ambient air temperature for storage	-4085 °C
Ambient air temperature for operation	060 °C (2 cm spacing) 050 °C (mounting side by side)
Pollution degree	2 conforming to IEC 60664-1

Product data sheet Dimensions Drawings

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Analog Interface (Converter)

Dimensions



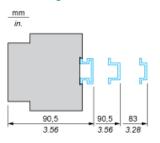
(1) Terminal block AB1TP435U or AB1RRNTP435U2

Product data sheet Mounting and Clearance

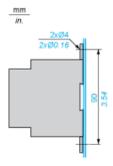
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Mounting

Mounting on Rails AM1 *****



Panel Mounting

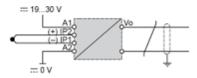


Product data sheet Connections and Schema

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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 input and output cables must be shielded as indicated in the diagram and must be kept away from each other.