

Product data sheet

Specifications



Converter for thermocouples,
Harmony Analog, temperature
transmitter, 0...600 degree COr
32...112 degree F

RMTK80BD

Main

| | |
|---------------------------|--|
| Range Of Product | Harmony Analog |
| Product Or Component Type | Converter for thermocouples |
| Analogue Input Type | Thermocouple 0...600 °C/32...112 °F thermocouple K conforming to IEC 60584 |
| Analogue Output Type | Current 0...20 mA <= 500 Ohm Current 4...20 mA <= 500 Ohm Voltage 0...10 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 | -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 |
| [Us] Rated Supply Voltage | 24 V DC +/- 20 %, non isolated |
| Current Consumption | <= 40 mA for voltage output <= 60 mA for current output |
| 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 | 1 x 2.5 mm² 2 x 1.5 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 | 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

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

| | |
|---------------------------------------|--|
| Standards | IEC 60584-1 IEC 60947-1 |
| 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= 10...100 Hz) conforming to IEC 60068-2-6 |
| Resistance To Electrostatic Discharge | 6 kV (in contact) conforming to IEC 61000-4-2 level 3 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 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 | 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 | 5.245 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-CO₂ 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](#)

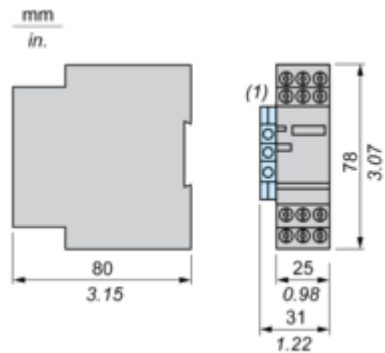
Certifications & Standards

| | |
|---------------------------|--|
| 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 |

Dimensions Drawings

Analog Interface (Converter)

Dimensions

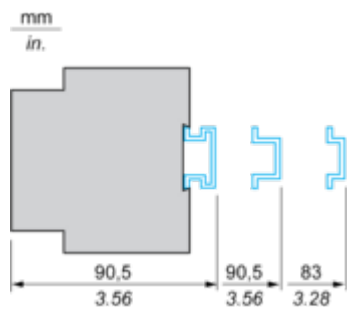


(1) Terminal block AB1TP435U or AB1RRNTP435U2

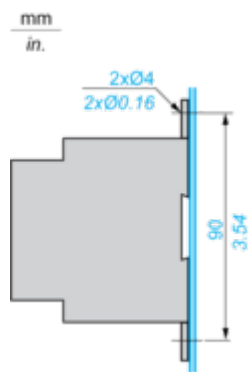
Mounting and Clearance

Mounting

Mounting on Rails AM1••••



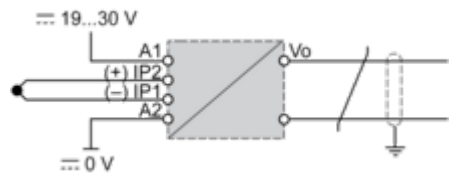
Panel Mounting



Connections and Schema

Analog 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.