

# Product data sheet

Specifications



## distributed analog input Modicon Momentum - 4 Input

170AAI52040

### Main

Range Of Product	Modicon Momentum automation platform
Product Or Component Type	Analogue input base
Analogue Input Number	4
Analogue Input Type	Differential
Analogue Input Range	+/- 100 mV 15 bits + sign > 10000 kOhm +/- 25 mV 15 bits + sign > 10000 kOhm
Thermocouple Type	Thermocouple E Thermocouple S Thermocouple K Thermocouple N Thermocouple B Thermocouple R Thermocouple J Thermocouple T

### Complementary

Data Format	Full 16 bits signed
Absolute Accuracy Error	+/- 21 $\mu$ V 25 °C +/- 25 mV +/- 27 $\mu$ V 25 °C +/- 100 mV +/- 46 $\mu$ V 60 °C +/- 25 mV +/- 94 $\mu$ V 60 °C +/- 100 mV
Temperature Probe Type	Ni 100 0.125 mA +/- 25 mV Ni 1000 0.125 mA +/- 100 mV Pt 100 0.125 mA +/- 25 mV Pt 1000 0.125 mA +/- 100 mV
Update Time	500 ms
Isolation Between Channels	400 V DC
Isolation Between Channels And Ground	500 V AC for 1 minute
Isolation Between Supply And Ground	500 V for 1 minute
Permissible Common Mode Voltage	100 V DC between channels to ground 115 V AC single or three phases between channels 200 V DC between channels 250 V AC between channels to ground 250 V AC single phase between channels
Common Mode Rejection	120 dB DC between channels 130 dB 50 Hz AC between channels 135 dB DC between channels to ground 140 dB 60 Hz AC between channels 145 dB 50 Hz AC between channels to ground 155 dB 60 Hz AC between channels to ground
Serial Mode Rejection	35 dB 50 Hz AC 45 dB 60 Hz AC
External Power Requirement	+/- 30 V DC

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

Maximum Power Dissipation In W	5.5 W
Reverse Polarity Protection	Internal
Protection Type	Internal 2 A slow-blow
Associated Fuse Rating	500 mA, fast blow
Marking	CE
Local Signalling	4 LEDs for channel status
Electrical Connection	2 connectors for removable terminal blocks
Current Consumption	305 mA at 24 V DC
Depth	47.5 mm
Height	125 mm
Width	141.5 mm
Net Weight	0.215 kg

## Environment

Product Certifications	FM Class 1 Division 2 CSA UL
Protective Treatment	TC
Resistance To Electrostatic Discharge	4 kV contact conforming to IEC 801-2 8 kV on air conforming to IEC 801-2
Resistance To Electromagnetic Fields	10 V/m 80...1000 MHz conforming to IEC 801-3
Ambient Air Temperature For Operation	0...60 °C
Ambient Air Temperature For Storage	-40...85 °C
Relative Humidity	95 % without condensation
Operating Altitude	<= 5000 m

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	5.5 cm
Package 1 Width	18.0 cm
Package 1 Length	26.0 cm
Package 1 Weight	380.0 g
Unit Type Of Package 2	S03
Number Of Units In Package 2	10
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	3.8 kg
Unit Type Of Package 3	P06
Number Of Units In Package 3	80
Package 3 Height	75.0 cm

Package 3 Width	40.0 cm
Package 3 Length	80.0 cm
Package 3 Weight	55.4 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-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](#)

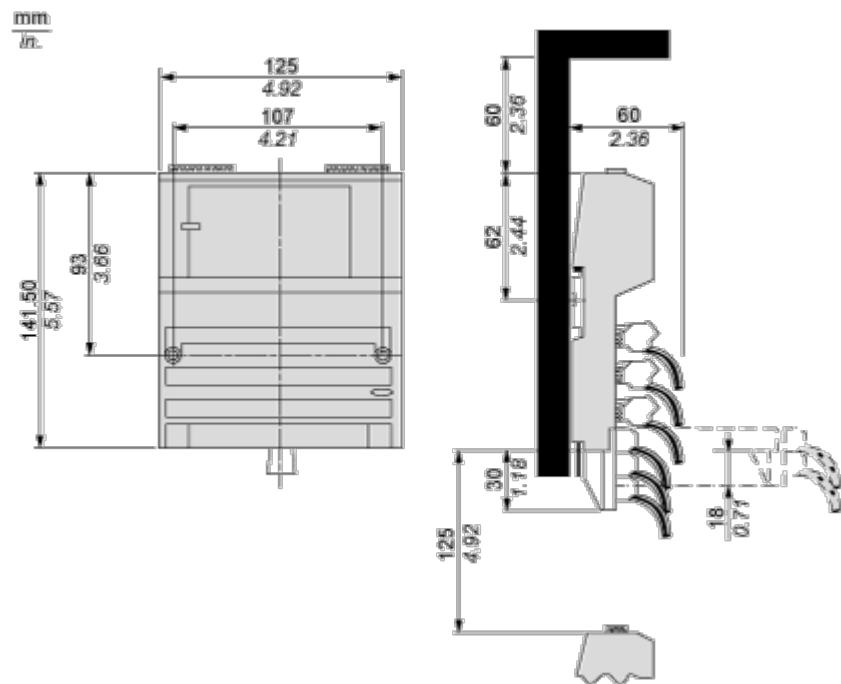
## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope)
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	<a href="#">End of Life Information</a>
California Proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

Dimensions Drawings

Standard Adapter on a Typical Base

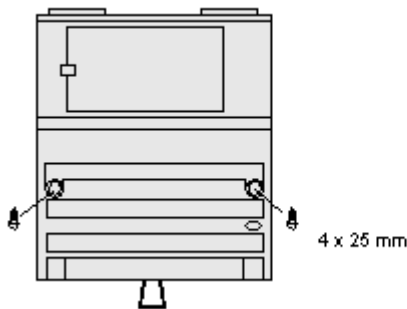
Dimensions



Mounting and Clearance

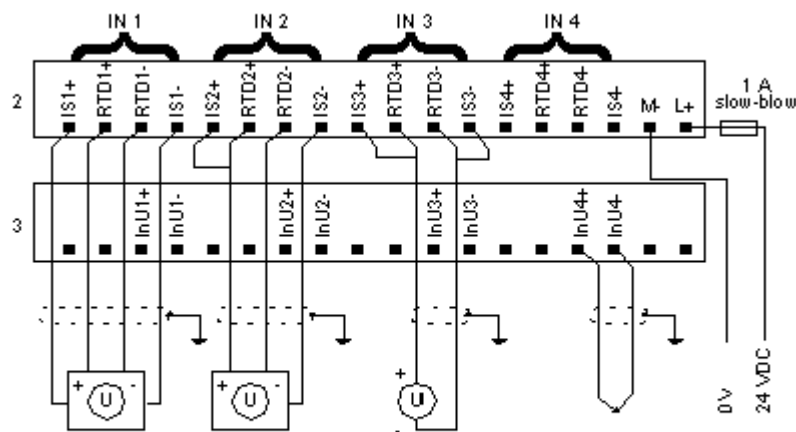
Mounting on a Wall

---



Connections and Schema

External Wiring Diagram



Examples

- \* Channel 1,RTD input, 4 - wire configuration
- \* Channel 2,RTD input, 3 - wire configuration
- \* Channel 3,RTD input, 2 - wire configuration
- \* Channel 4,thermocouple input

Internal Pin Connections

