

# Product data sheet

Specifications



## distributed analog input Modicon Momentum - 4 Input

170AAI52040

**Product availability: Stock - Normally stocked in distribution facility**

### 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 µV 77 °F (25 °C) +/- 25 mV +/- 27 µV 77 °F (25 °C) +/- 100 mV +/- 46 µV 140 °F (60 °C) +/- 25 mV +/- 94 µV 140 °F (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

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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	for channel status 4 LEDs
Electrical connection	2 connectors for removable terminal blocks
Current consumption	305 mA 24 V DC
Depth	1.9 in (47.5 mm)
Height	4.9 in (125 mm)
Width	5.6 in (141.5 mm)
Net Weight	0.474 lb(US) (0.215 kg)

## Environment

Product Certifications	FM Class 1 Division 2 CSA UL
Protective treatment	TC
Resistance to electrostatic discharge	4 kV contact IEC 801-2 8 kV on air IEC 801-2
Resistance to electromagnetic fields	9.1 V/m (10 V/m) 80...1000 MHz IEC 801-3
Ambient air temperature for operation	32...140 °F (0...60 °C)
Ambient Air Temperature for Storage	-40...185 °F (-40...85 °C)
Relative Humidity	95 % without condensation
Operating altitude	<= 16404.2 ft (5000 m)

## Ordering and shipping details

Category	US1PC3118206
Discount Schedule	PC31
GTIN	3389110886498
Returnability	Yes
Country of origin	ID

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.17 in (5.500 cm)
Package 1 Width	7.01 in (17.800 cm)
Package 1 Length	10.24 in (26.000 cm)
Package 1 Weight	13.404 oz (380.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	10

Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	9.828 lb(US) (4.458 kg)

## Contractual warranty

Warranty	18 months
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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 >](#)

Environmental footprint	
Environmental Disclosure	<a href="#">Product Environmental Profile</a>

Use Better

Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	441d5619-6318-4bbf-ac83-96d05888ee7e
REACH Regulation	<a href="#">REACH Declaration</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>

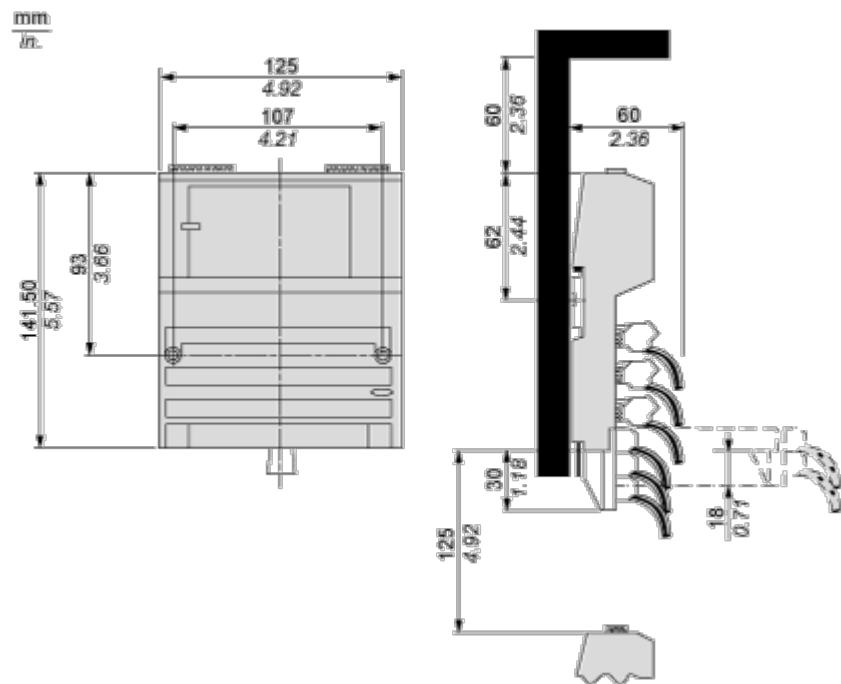
Use Again

Repack and remanufacture	
Circularity Profile	<a href="#">End of Life Information</a>
Take-back	No
WEEE	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

Standard Adapter on a Typical Base

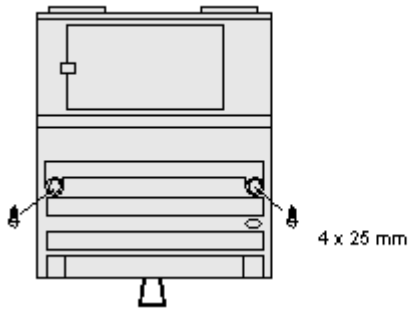
Dimensions



Mounting and Clearance

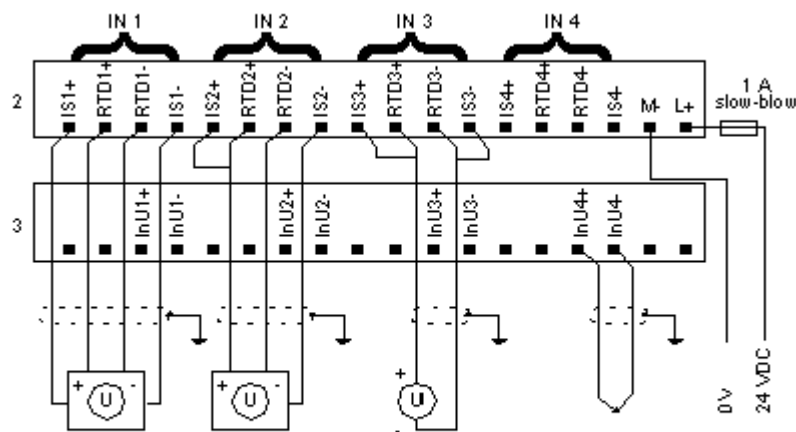
Mounting on a Wall

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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

