

# Product data sheet

Specifications



## Controller, Modicon M171/M172/ M173, performance blind 7 IO, Ethernet, Modbus

TM172PBG07R

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

**Price\*: 250.00 USD**

### Main

Range of Product	Modicon M171/M172
Product or Component Type	Programmable controllers
Product Specific Application	HVAC
variant	Programmable
Total inputs/outputs	7
Discrete input number	2
Discrete output number	1 relay outputs SPDT with independent common 2 relay outputs SPST with same common
Discrete output current	3 A relay SPST 3 A relay SPDT
Analogue input number	2 configurable by pair

### Complementary

Number of port	1 CAN port - screw terminal block 1 USB type A - USB type A female 1 USB type mini B - USB device port Mini-B 2 RS485 - screw terminal block Modbus serial link or BACnet MS/TP) 1 Ethernet - RJ45 Modbus TCP and BACnet IP with webserver)
Input/output number	2 digital input 2 analog input 3 digital output
Discrete input logic	Sink or source (positive/negative) up to 2 kHz
Discrete input voltage	24 V AC/DC
Discrete input current	5 mA AC/DC
Input impedance	10 kOhm
Analogue input type	NTC NK103 Beta 3977 temperature probe - 40...137 °C 0.1 °C 10 kOhm at 25 °C) NTC 103AT-2 Beta 3435 temperature probe - 50...110 °C 0.1 °C 10 kOhm at 25 °C) voltage 0...10 V 1 digit > 10 kOhm voltage 0...5 V 1 digit > 20 kOhm absolute or ratiometric) impedance 0...1500 hOhm 1 hOhm 10 kOhm impedance 0...300 daOhm 1 daOhm 1500 Ohm PTC temperature probe - 55...150 °C 0.1 °C 1500 Ohm Pt 1000 temperature probe - 200...850 °C 0.1 °C 1500 Ohm current 0...20 mA/4...20 mA 1 digit < 150 Ohm direct input 10 kOhm Dry contact)

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

<b>Measurement accuracy</b>	0...20 mA 0...4 mA +/- 2 % of full scale +/- 1 digit 0...20 mA 4...20 mA +/- 1 % of full scale +/- 1 digit 4...20 mA +/- 1 % of full scale +/- 1 digit 0...10 V +/- 1 % of full scale +/- 1 digit 0...5 V +/- 1 % of full scale +/- 1 digit DaOhm 0...300 daOhm +/- 2.5 daOhm NTC NK103 Beta 3977 - 40...+110 °C +/- 1 °C NTC NK103 Beta 3977 110...137 °C +/- 1.9 °C NTC 103AT-2 Beta 3435 - 50...110 °C +/- 1 °C PTC - 55...155 °C +/- 1.1 °C Pt 1000 - 200...-100 °C +/- 10 °C Pt 1000 - 100...-50 °C +/- 2.5 °C Pt 1000 - 50...100 °C +/- 1.5 °C Pt 1000 100...400 °C +/- 2.4 °C Pt 1000 400...850 °C +/- 10 °C HOhm 0...750 hOhm +/- 8.5 hOhm HOhm 750 hOhm...1500 hOhm +/- 24 hOhm
<b>Sensor power supply</b>	5 V DC 40 mA supplied by the controller 24 V DC 100 mA supplied by the controller
<b>[Us] rated supply voltage</b>	24 V +/- 10 % AC 20...38 V DC
<b>Power consumption in W</b>	10 W 24 V AC/DC
<b>Realtime clock</b>	Built-in clock, clock drift <= 30 s/month at -4...140 °F (-20...60 °C)
<b>Display type</b>	Without Display
<b>Overvoltage category</b>	II
<b>Local signalling</b>	for programmable 1 LED (red) for programmable 1 LED (yellow) for programmable 1 LED (green) for power 1 LED (green)
<b>Mounting Support</b>	DIN rail Panel mounting with accessory
<b>Width</b>	2.8 in (72 mm)
<b>Height</b>	4.3 in (110 mm)
<b>Depth</b>	2.4 in (60.5 mm)
<b>Net Weight</b>	0.386 lb(US) (0.175 kg)

## Environment

<b>Directives</b>	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
<b>Standards</b>	IEC 61000-4-6 UL 60730-1 IEC 61000-4-3 EN 60730-1 IEC 61000-4-5 IEC 61000-4-2 EN 60068-2-6 Fc EN 60730-2-9 CSA E60730-2-9 EN 60068-2-27 CAN/CSA-E60730-1 IEC 61000-4-11 UL 60730-2-9 IEC 61000-4-4 UL94 (material V0)
<b>Product Certifications</b>	CE RCM cURus CSA EAC
<b>Ambient air temperature for operation</b>	-4...140 °F (-20...60 °C)
<b>Ambient Air Temperature for Storage</b>	-22...158 °F (-30...70 °C)

<b>Relative humidity</b>	5...95 % non-condensing
<b>IP degree of protection</b>	IP20
<b>Pollution degree</b>	2
<b>Operating altitude</b>	0...6561.68 ft (0...2000 m)

## Ordering and shipping details

<b>Category</b>	US1PC1222537
<b>Discount Schedule</b>	PC12
<b>GTIN</b>	3606481390059
<b>Returnability</b>	Yes
<b>Country of origin</b>	US

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	2.953 in (7.500 cm)
<b>Package 1 Width</b>	3.740 in (9.500 cm)
<b>Package 1 Length</b>	5.315 in (13.500 cm)
<b>Package 1 Weight</b>	7.866 oz (223.000 g)
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	15
<b>Package 2 Height</b>	5.906 in (15.000 cm)
<b>Package 2 Width</b>	11.811 in (30.000 cm)
<b>Package 2 Length</b>	15.748 in (40.000 cm)
<b>Package 2 Weight</b>	8.047 lb(US) (3.650 kg)

## 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

## Resource performance

Upgradeable Through Digital Modules  
And Upgraded Components

## 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](#)

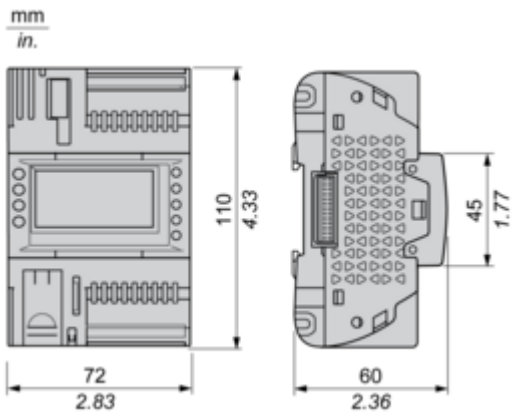
**California Proposition 65** WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Dimensions Drawings

Dimensions Drawings

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Dimensions

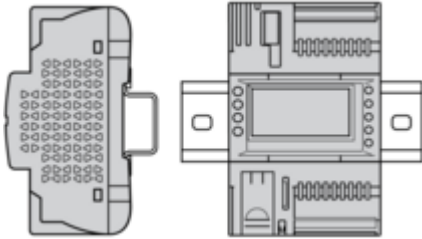


Mounting and Clearance

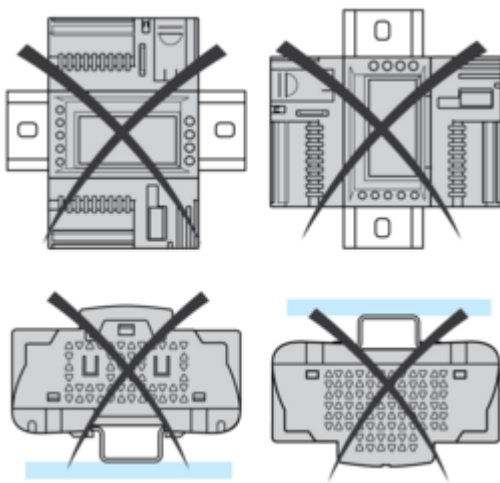
**Mounting Positions**

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**Correct Mounting Position**

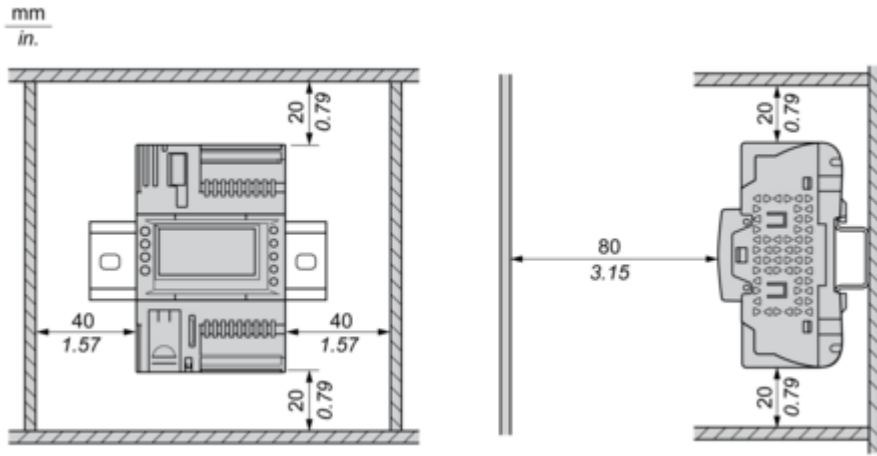


**Incorrect Mounting Position**



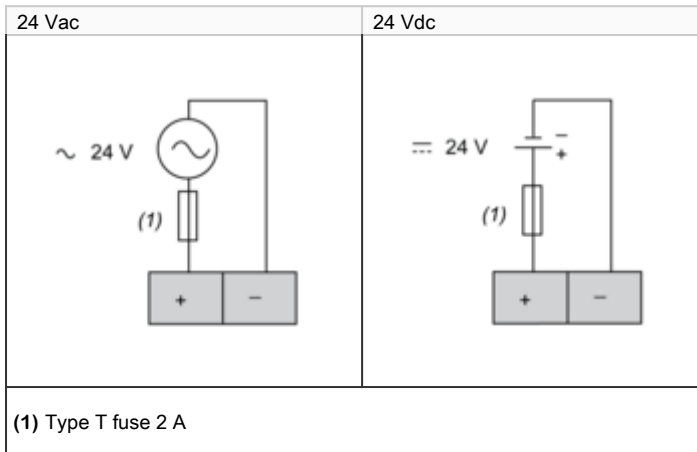
Clearance

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Connections and Schema

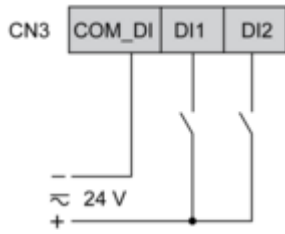
Power Supply





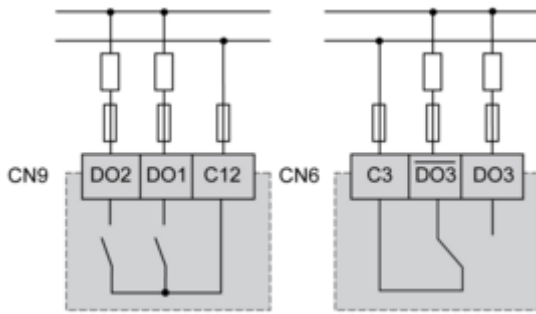
CN3 Fast Digital Inputs

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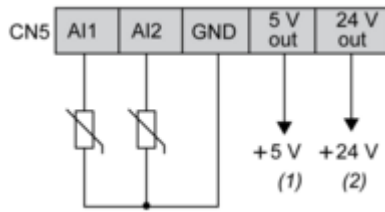
CN9, CN6 High Voltage Relay SPST Digital Output

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CN5 Analog Inputs

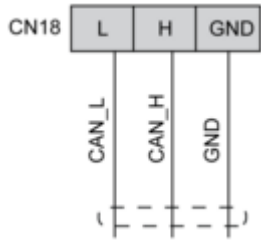
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- (1) Max. current : 50 mA.
- (2) Max. current : 100 mA.

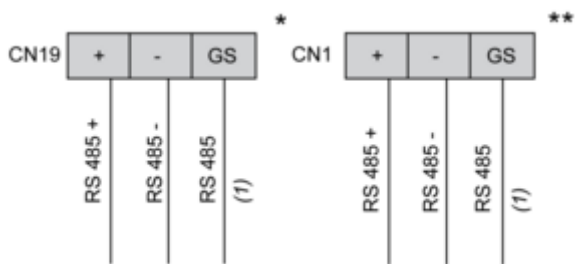
CN18 CAN Expansion Bus Port

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CN19, CN1 RS485 Bus Port

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(1) Signal reference

\* RS485-1 Modbus SL

\*\* RS485-2 Modbus SL or BACnet MS/TP