

# Product data sheet

Specifications



## Controller, Modicon M171/M172/ M173, performance, display, 42 IO, Ethernet, solid state relay

TM172PDG42SI

**Product availability: Non-Stock - Not normally stocked in distribution facility**

**Price\*: 555.00 USD**

### Main

Range of Product	Modicon M171/M172
Product or Component Type	Programmable controllers
Product Specific Application	HVAC control
Variant	Programmable
Total inputs/outputs	42
Discrete input number	12
Discrete output number	2 relay outputs SPDT with independent common 3 relay outputs SPST with same common 5 relay outputs SPST with same common 2 solid state, isolated SPST with independent common
Discrete output current	3 A relay SPDT 3 A relay SPST 0.5 A solid state, isolated
Analogue input number	12 configurable by pair
Analogue output number	4 voltage 0...10 V 2 voltage/current 4...20 mA or 0...10 V or PWM (2 kHz)

### 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	12 analog input 6 analog output 12 digital input 12 digital output
Discrete input logic	Sink or source (positive/negative)
Discrete input voltage	24 V AC/DC
Discrete input current	2.5 mA
input impedance	10 kOhm
Analogue input type	impedance 0...1500 hOhm 1 hOhm 10 kOhm impedance 0...300 daOhm 1 daOhm 2 kOhm NTC 103AT-2 Beta 3435 temperature probe - 50...110 °C 0.1 °C 10 kOhm voltage 0...10 V 1 digit > 10 kOhm NTC NK103 Beta 3977 temperature probe - 40...137 °C 0.1 °C 10 kOhm extended) current 0...20 mA/4...20 mA 1 digit < 150 Ohm PTC temperature probe - 55...150 °C 0.1 °C 2 kOhm voltage 0...5 V 1 digit > 20 kOhm absolute or ratiometric) Pt 1000 temperature probe - 200...850 °C 0.1 °C 2 kOhm direct input > 10 kOhm

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>	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 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 HOhm 0...1500 hOhm +/- 8.5 hOhm DaOhm 0...300 daOhm +/- 2.5 daOhm
<b>Sensor power supply</b>	5 V DC 50 mA supplied by the controller 24 V DC 150 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>	14 W 24 V AC/DC
<b>Realtime clock</b>	Built-in clock, clock drift <= 30 s/month at -4...149 °F (-20...65 °C)
<b>Display type</b>	Backlit LCD - 128 x 64 pixels
<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>	Panel mounting with accessory DIN rail
<b>Width</b>	5.7 in (144 mm)
<b>Height</b>	4.3 in (110 mm)
<b>Depth</b>	2.4 in (60.5 mm)
<b>Net Weight</b>	0.849 lb(US) (0.385 kg)

## Environment

<b>Directives</b>	2014/30/EU - electromagnetic compatibility 2014/35/EU - low voltage directive
<b>Standards</b>	CAN/CSA-E60730-1 CSA E60730-2-9 EN 60068-2-27 EN 60068-2-6 Fc EN 60730-1 EN 60730-2-9 UL 60730-1 UL 60730-2-9 IEC 61000-4-2 IEC 61000-4-3 IEC 61000-4-4 IEC 61000-4-5 IEC 61000-4-6 IEC 61000-4-11 UL94 (material V0)
<b>Product Certifications</b>	EAC CE cURus CSA RCM
<b>Ambient air temperature for operation</b>	-4...149 °F (-20...65 °C) UL 60730-1 -4...131 °F (-20...55 °C) horizontal
<b>Ambient Air Temperature for Storage</b>	-22...158 °F (-30...70 °C)

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

## Ordering and shipping details

Category	US1PC1222537
Discount Schedule	PC12
GTIN	3606489729530
Returnability	No
Country of origin	IT

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.31 in (13.5 cm)
Package 1 Width	3.74 in (9.5 cm)
Package 1 Length	7.32 in (18.6 cm)
Package 1 Weight	16.2 oz (460.0 g)
Unit Type of Package 2	S02
Number of Units in Package 2	6
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	6.733 lb(US) (3.054 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 >](#)


[How we assess product 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](#)

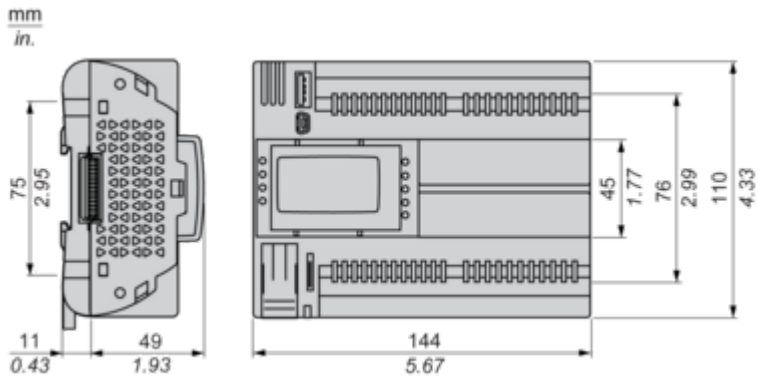
Circularity Profile [End of Life Information](#)

**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

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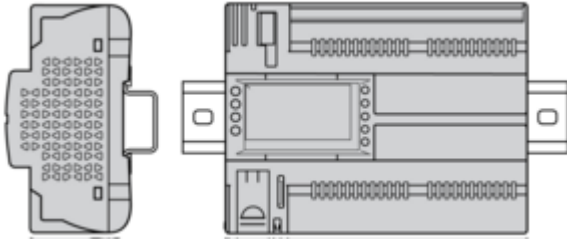


Mounting and Clearance

Mounting Positions

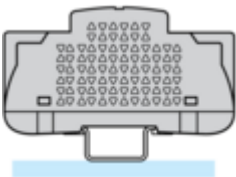
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Correct Mounting Position

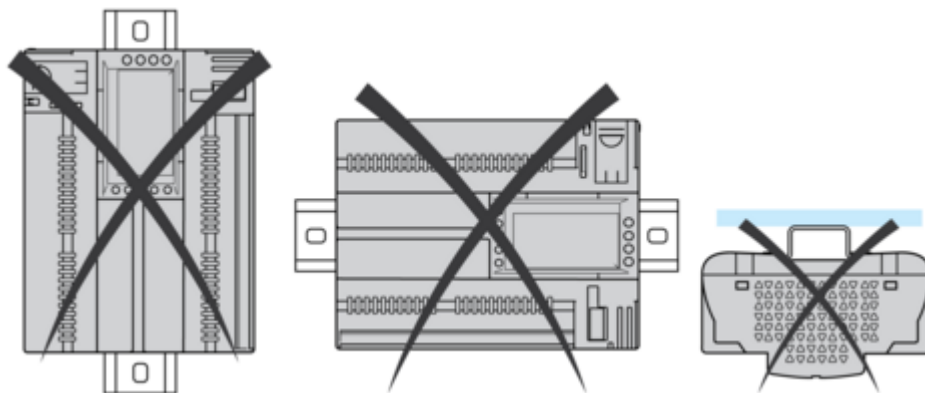


Acceptable Mounting Position

Controller can be mounted horizontally upward with a temperature derating (maximum ambient temperature: 60 °C (140 °F)).

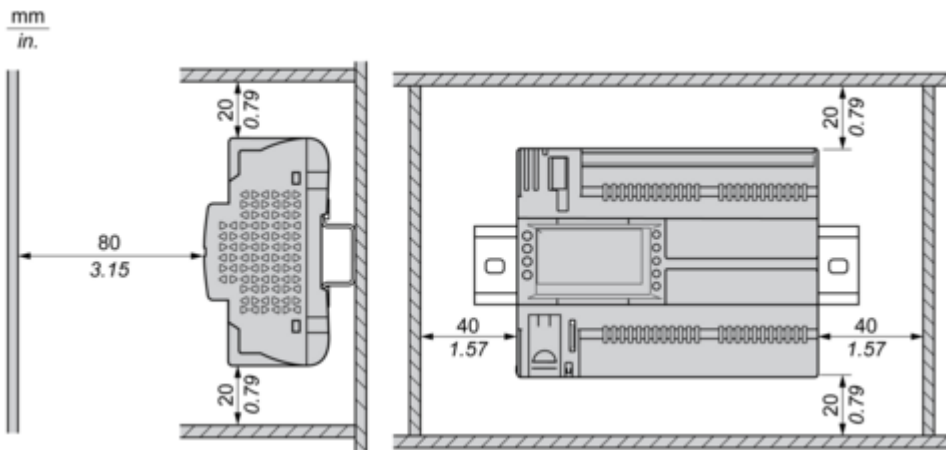


Incorrect Mounting Position



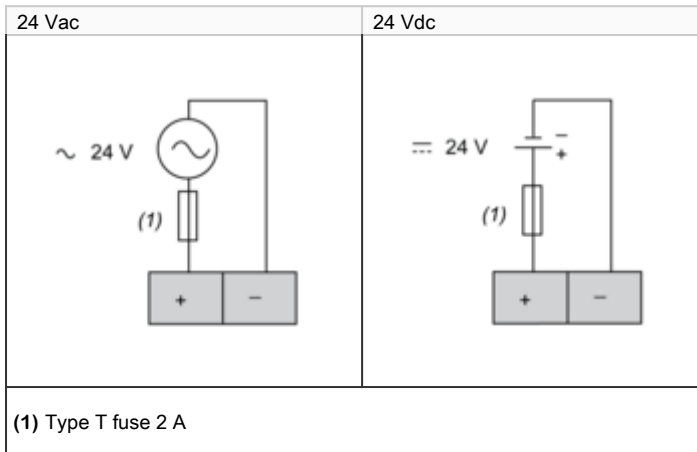
Clearance

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Connections and Schema

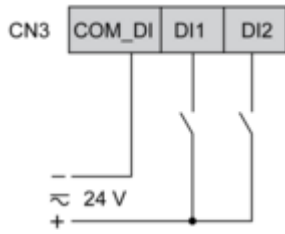
Power Supply





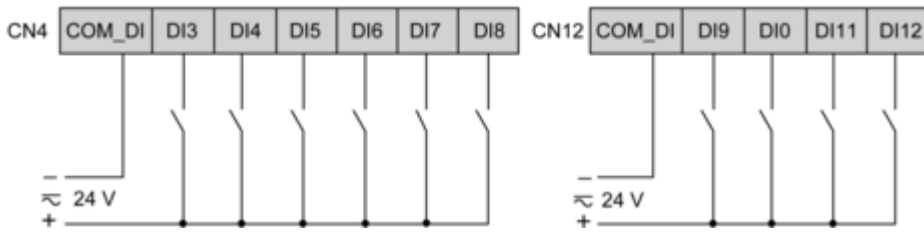
CN3 Fast Digital Inputs

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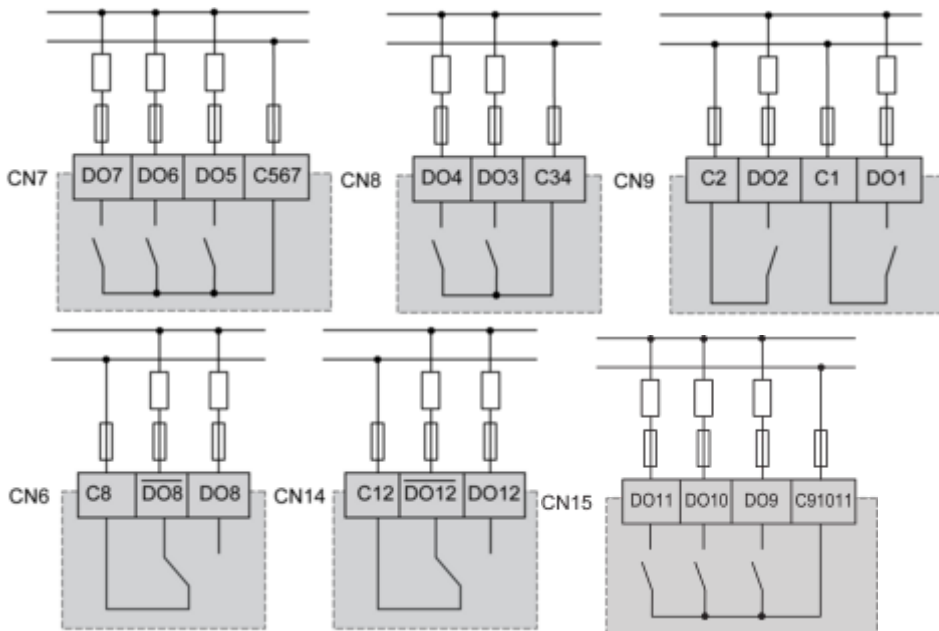


CN4, CN12 Digital Inputs

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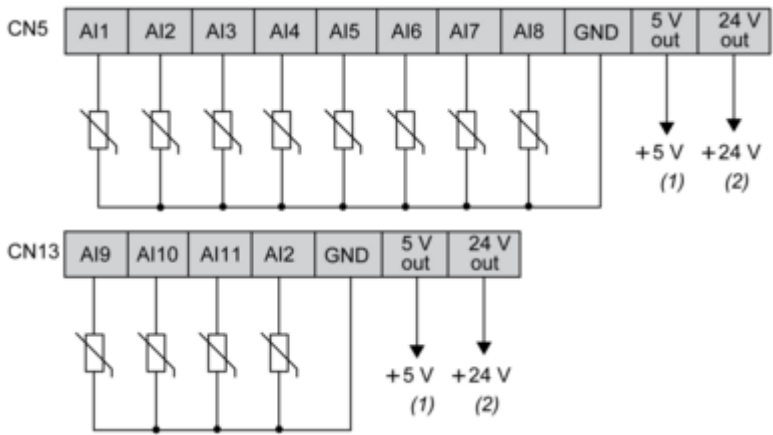


CN7, CN8, CN9, CN6, CN14, CN15 High Voltage Relay SPST Digital Output



CN5, CN13 Analog Inputs

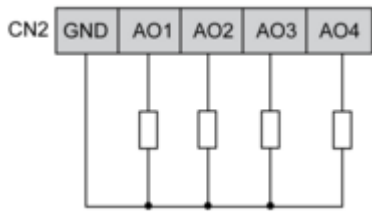
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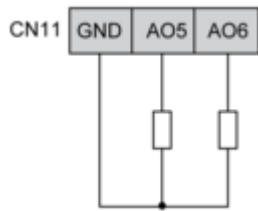
- (1) (CN5 + CN13) Max. current : 50 mA.
- (2) (CN5 + CN13) Max. current : 150 mA.

CN2, CN11 Analog Outputs

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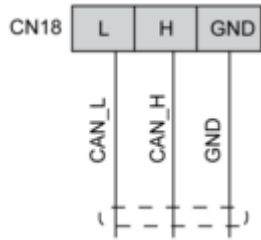


AO3, AO4 can be used also as PWM generator, up to 2kHz.



CN18 CAN Expansion Bus Port

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CN19, CN1 CAN Expansion Bus Port

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