

# Product data sheet

Specifications



## Controller, Modicon M171/M172/ M173, Modicon M172, performance, display, 42 IO, Ethernet, Modbus

TM172PDG42R

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

### Main

Range of Product	Modicon M171/M172
Product or Component Type	Programmable controllers
Product Specific Application	HVAC and pumping solution
Variant	Programmable
Total inputs/outputs	42
Discrete input number	12
Discrete output number	2 relay outputs SPST with same common 2 relay outputs SPST with independent common 2 relay outputs SPDT with same common 3 relay outputs SPST with independent common 3 relay outputs SPST with same common
Discrete output current	1 A relay SPDT 3 A relay SPST
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 impedance 0...300 daOhm direct input NTC temperature probe - 50...110 °C 0.1 °C extended) voltage 0...10 V NTC temperature probe - 40...150 °C 0.1 °C current 0...20 mA/4...20 mA PTC temperature probe - 55...150 °C 0.1 °C voltage 0...5 V absolute or ratiometric) Pt 1000 temperature probe - 200...850 °C 0.1 °C

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

<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>	15 W 24 V AC/DC
<b>Realtime clock</b>	Built-in clock at -4...140 °F (-20...60 °C)
<b>Display type</b>	Backlit LCD - 128 x 64 pixels
<b>Overvoltage category</b>	II
<b>Local signalling</b>	1 LED (red) for programmable 1 LED (yellow) for programmable 1 LED (green) for programmable 1 LED (green) for power
<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>	2006/95/EC - low voltage directive 86/188/EEC - physical agents (noise) directive
<b>Standards</b>	EN/IEC 60730 UL94 (material V0)
<b>Product Certifications</b>	CE EAC CSA cURus
<b>Ambient air temperature for operation</b>	-4...140 °F (-20...60 °C) UL 60730-1 -4...149 °F (-20...65 °C) with derating UL 60730-1
<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>	3606480894886
<b>Returnability</b>	No
<b>Country of origin</b>	IT

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Nbr. of units in pkg.</b>	1
<b>Package 1 Height</b>	5.20 in (13.200 cm)

<b>Package 1 Width</b>	3.54 in (9.000 cm)
<b>Package 1 Length</b>	7.32 in (18.600 cm)
<b>Package weight(Lbs)</b>	15.732 oz (446.000 g)
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	6
<b>Package 2 Height</b>	5.91 in (15.000 cm)
<b>Package 2 Width</b>	11.81 in (30.000 cm)
<b>Package 2 Length</b>	15.75 in (40.000 cm)
<b>Package 2 Weight</b>	6.349 lb(US) (2.880 kg)



## Environmental Data

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

Carbon footprint (kg CO2 eq, Total Life cycle) **682**

Environmental Disclosure [Product Environmental Profile](#)

## Use Better

### Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **No**

[EU RoHS Directive](#) **Pro-active compliance (Product out of EU RoHS legal scope)**

SCIP Number **57c874b5-a29e-477a-8453-548b74a04548**

REACH Regulation [REACH Declaration](#)

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)**

## Use Again

### Repack and remanufacture

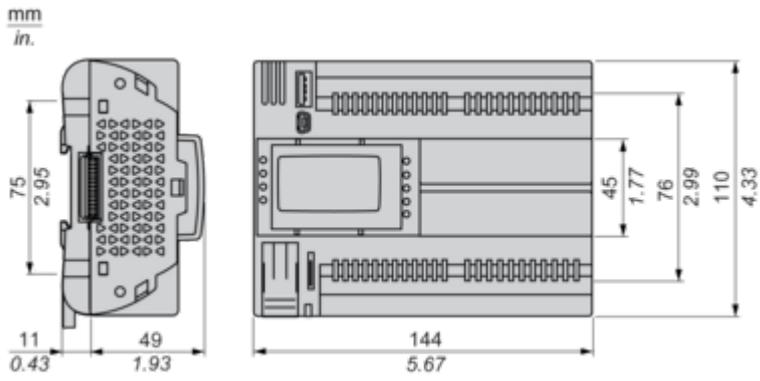
Circularity Profile [End of Life Information](#)

Take-back **No**

Dimensions Drawings

Dimensions

---

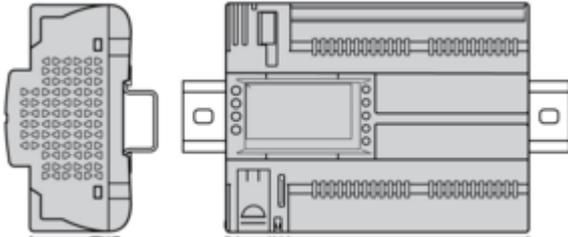


Mounting and Clearance

Mounting Positions

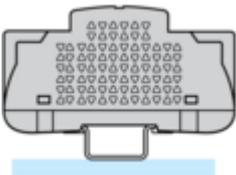
---

Correct Mounting Position

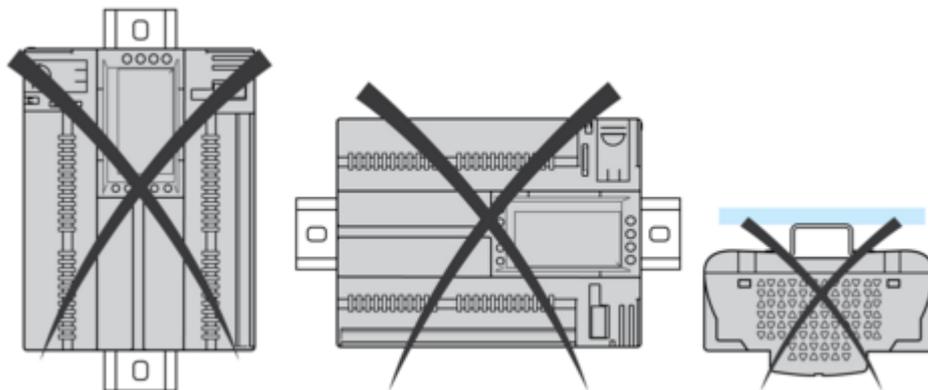


Acceptable Mounting Position

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

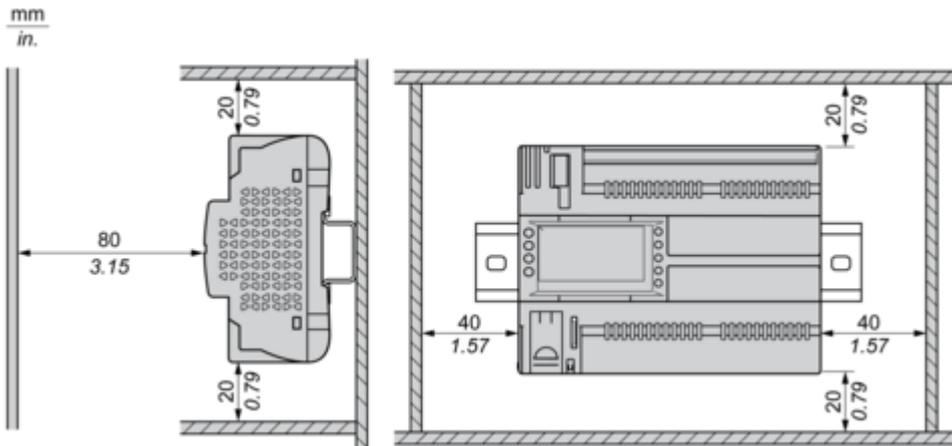


Incorrect Mounting Position



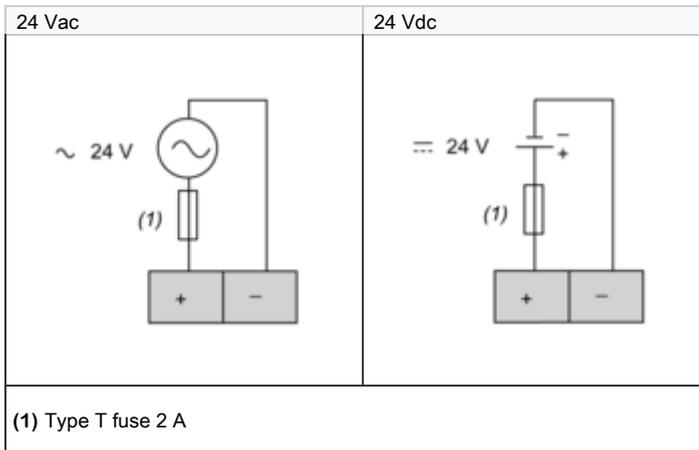
Clearance

---



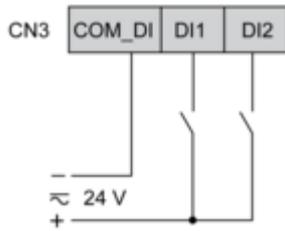
Connections and Schema

Power Supply



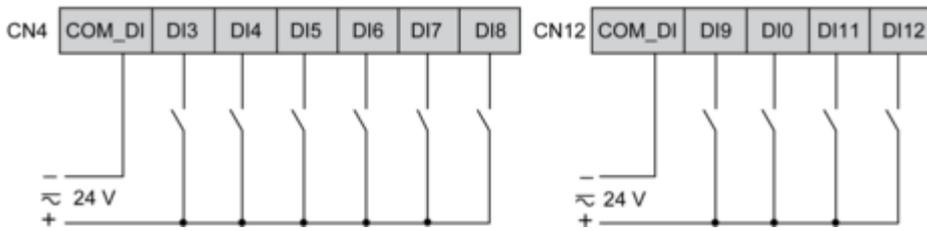
CN3 Fast Digital Inputs

---

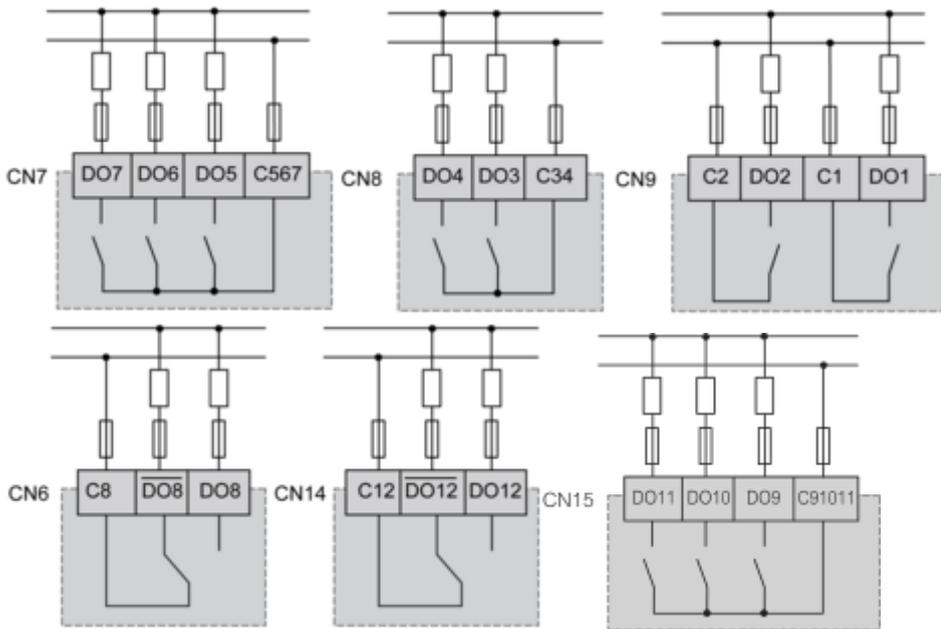


CN4, CN12 Digital Inputs

---

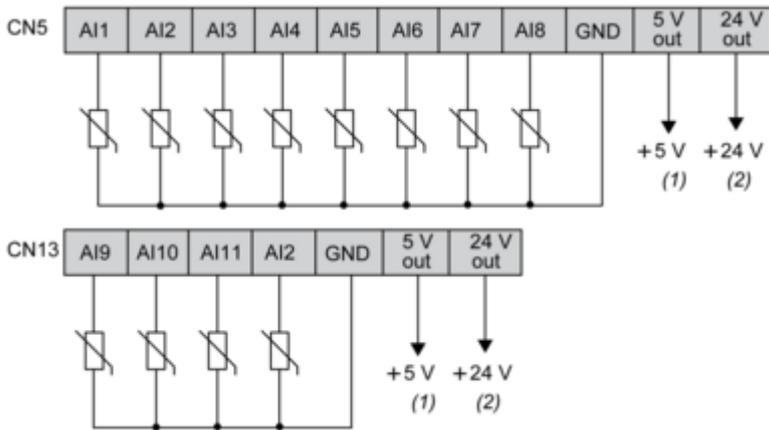


CN7, CN8, CN9, CN6, CN14, CN15 High Voltage Relay SPST Digital Output



CN5, CN13 Analog Inputs

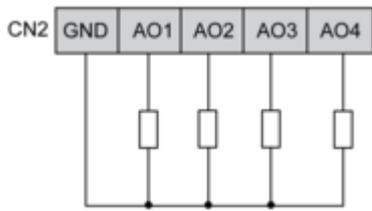
---



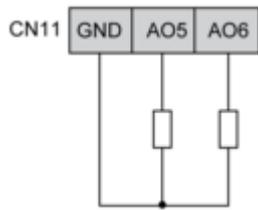
- (1) (CN5 + CN13) Max. current : 50 mA.
- (2) (CN5 + CN13) Max. current : 150 mA.

CN2, CN11 Analog Outputs

---

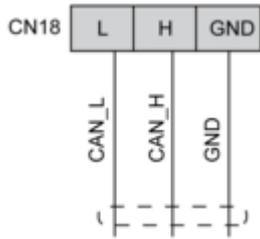


AO3, AO4 can be used also as PWM generator, up to 2kHz.



CN18 CAN Expansion Bus Port

---



CN19, CN1 CAN Expansion Bus Port

---

