

Product data sheet

Specifications



Controller, Modicon M171/M172/ M173, performance blind 27 IO, Modbus

TM171PBM27R

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	27
Discrete input number	8
Discrete output number	3 relay outputs SPST with same common 2 relay outputs SPST with same common 2 relay outputs SPDT with independent common
Discrete output current	8 A relay SPDT 5 A relay SPST
Analogue input number	2 analog input NTC 4 configurable
Analogue output number	3 voltage/current 4...20 mA or 0...10 V 2 open collector 1 kHz, 12 V, 35 mA

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 1 RS485 - screw terminal block Modbus serial link)
Input/output number	6 analog input 5 analog output 8 digital input 7 digital output 1 high-speed counter
Discrete input logic	Sink or source (positive/negative)
Discrete input voltage	24 V AC/DC 48 V DC
Discrete input current	2.5 mA
Input impedance	20 kOhm
Analogue input type	voltage 0...5 V ratiometric) current 4...20 mA impedance 0...1500 hOhm impedance 0...300 daOhm NTC temperature probe - 50...110 °C 0.1 °C extended) voltage 0...10 V Pt 1000 temperature probe - 200...800 °C 0.1 °C NTC temperature probe - 40...150 °C 0.1 °C
Sensor power supply	5 V DC 50 mA 12 V DC 150 mA

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

[Us] rated supply voltage	24 V +/- 20 % AC/DC 48 V +/- 20 % DC
Power consumption in W	18 W 24...48 V AC/DC
Realtime clock	Built-in clock at 14...131 °F (-10...55 °C)
Display type	LCD display - 128 x 64 pixels
Overvoltage category	II
Local signalling	for programmable 1 LED (red) for programmable 1 LED (yellow) for programmable 1 LED (green)
Mounting Support	DIN rail
Width	5.5 in (140 mm)
Height	4.3 in (110 mm)
Depth	2.4 in (61.6 mm)
Net Weight	0.849 lb(US) (0.385 kg)

Environment

Directives	86/188/EEC - physical agents (noise) directive 2006/95/EC - low voltage directive
Standards	EN/IEC 60730
Product Certifications	cURus CSA EAC CE
Ambient air temperature for operation	14...131 °F (-10...55 °C) UL 60730-1
Ambient Air Temperature for Storage	-4...185 °F (-20...85 °C)
Relative humidity	10...90 % non-condensing
IP degree of protection	IP20
pollution degree	2

Ordering and shipping details

Category	US1PC1222537
Discount Schedule	PC12
GTIN	3606480752827
Returnability	No
Country of origin	IT

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	5.20 in (13.2 cm)
Package 1 Width	3.54 in (9.0 cm)
Package 1 Length	7.32 in (18.6 cm)
Package 1 Weight	17.5 oz (496.0 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	7.009 lb(US) (3.179 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)	669
Environmental Disclosure	Product Environmental Profile

Use Better

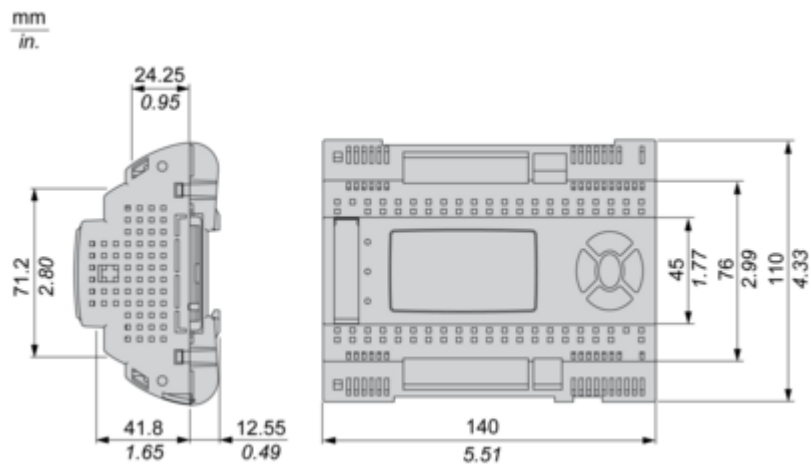
 Materials and Substances	
Packaging made with recycled cardboard	No
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACH Regulation	REACH Declaration
California proposition 65	WARNING: This product can expose you to chemicals including: 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

Use Again

 Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No

Dimensions Drawings

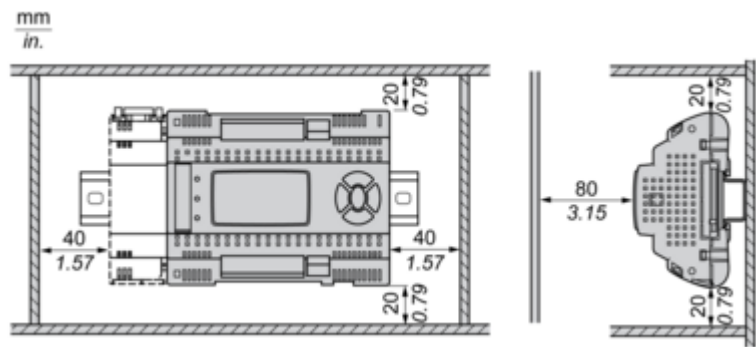
Dimensions



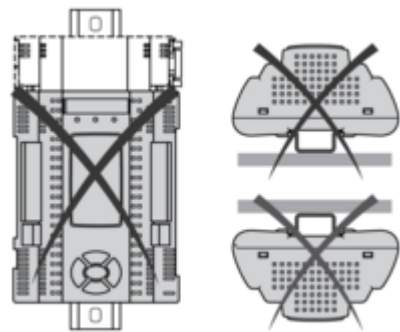
Mounting and Clearance

Mounting and Clearance

Clearance

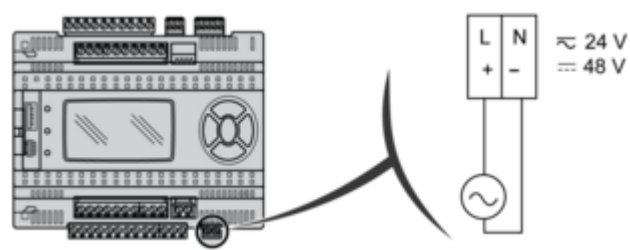


Misplacement

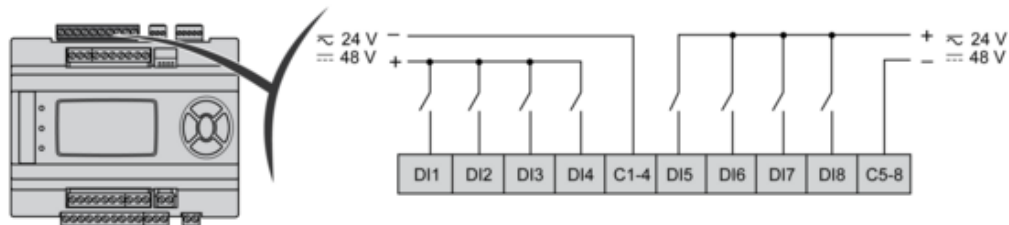


Connections and Schema

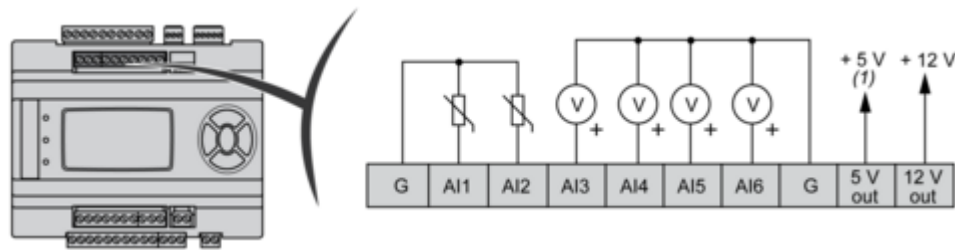
Power Supply



Digital Inputs



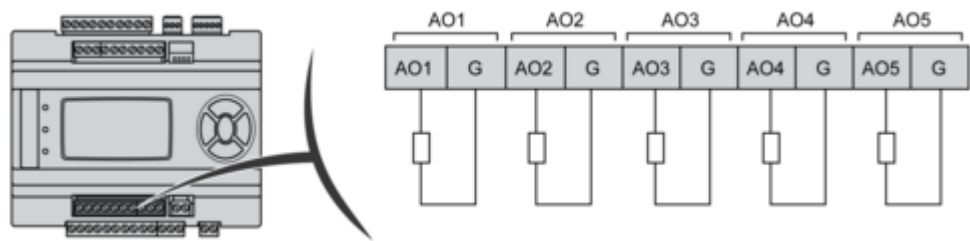
Analog Inputs



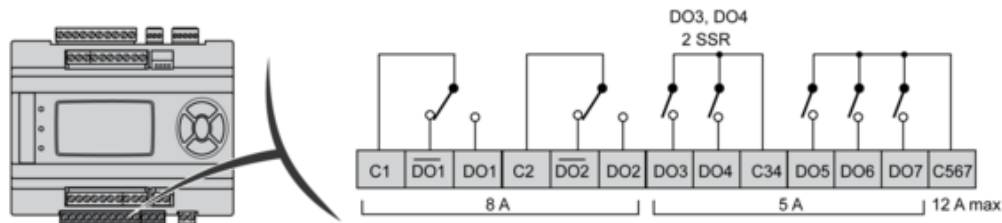
(1) Max current: 50 mA.

G : Ground

Analog Outputs

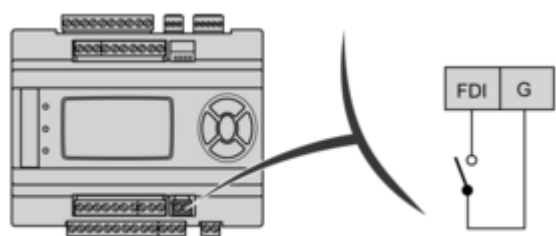


Digital Outputs

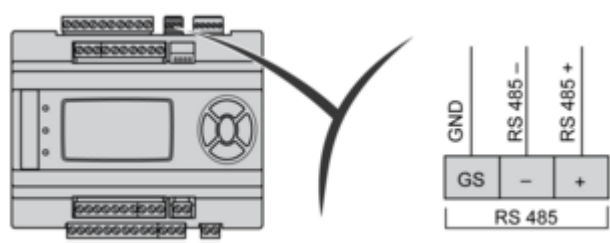


C : common

Fast Digital Input

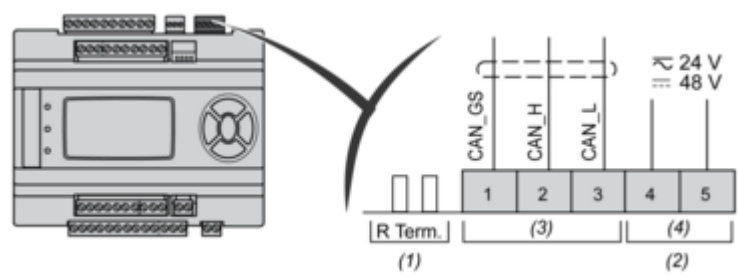


Serial Line Port (RS 485)



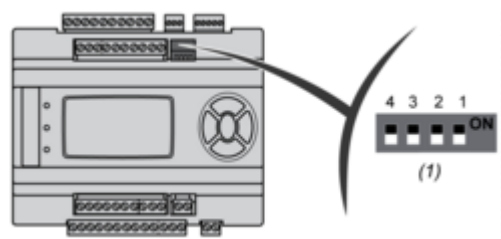
Apply 120 Omega terminal resistance
GS serial GND isolated from G

CAN Expansion Bus



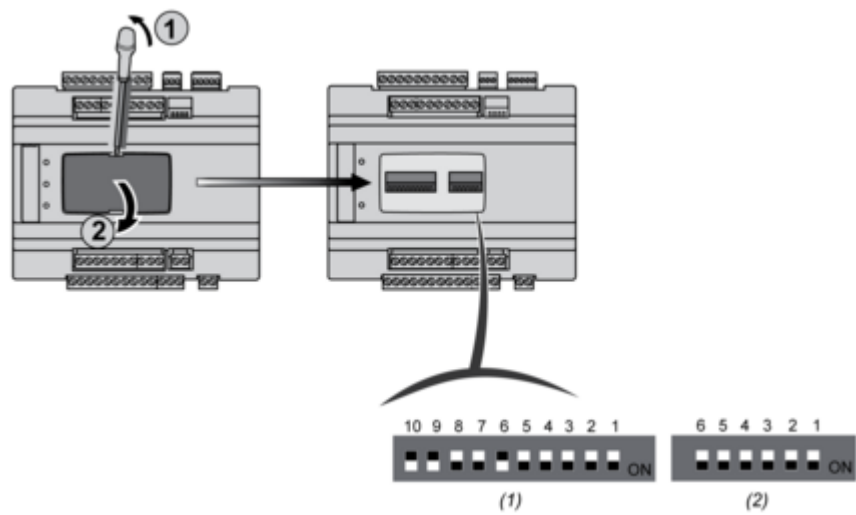
- (1) CAN terminal resistance
- (2) Output for remote keyboard
- (3) CANOPEN
- (4) Power Out

4 DipSwitches



(1) 4 DIP SWITCH
LOW Address

6 - 10 DipSwitches



- (1) 10 DIP SWITCH
- (2) 6 DIP SWITCH