

Product datasheet

Specifications



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

TM171PBM27R

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 for relay outputs SPST with same common 2 for relay outputs SPST with same common 2 for relay outputs SPDT with independent common
Discrete output current	8 A for relay SPDT 5 A for relay SPST
Analogue input number	2 analog input NTC 4 configurable
Analogue output number	3 voltage/current, range: 4...20 mA or 0...10 V 2 open collector, range: 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(s) 5 analog output(s) 8 digital input(s) 7 digital output(s) 1 high-speed counter(s)
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 - resolution: 0.1 °C (extended) voltage 0...10 V Pt 1000 temperature probe - 200...800 °C - resolution: 0.1 °C NTC temperature probe - 40...150 °C - resolution: 0.1 °C
Sensor power supply	5 V DC at 50 mA 12 V DC at 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 at 24...48 V AC/DC
Realtime clock	Built-in clock at -10...55 °C
Display type	LCD display - 128 x 64 pixels
Overvoltage category	II
Local signalling	1 LED (red) for programmable 1 LED (yellow) for programmable 1 LED (green) for programmable
mounting support	DIN rail
Width	140 mm
Height	110 mm
Depth	61.6 mm
net weight	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	-10...55 °C conforming to UL 60730-1
Ambient air temperature for storage	-20...85 °C
Relative humidity	10...90 % non-condensing
IP degree of protection	IP20
Pollution degree	2

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	13.2 cm
Package 1 Width	9.0 cm
Package 1 Length	18.6 cm
Package 1 Weight	496.0 g
Unit Type of Package 2	S02
Number of Units in Package 2	6
Package 2 Height	15.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	3.179 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-CO₂ 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

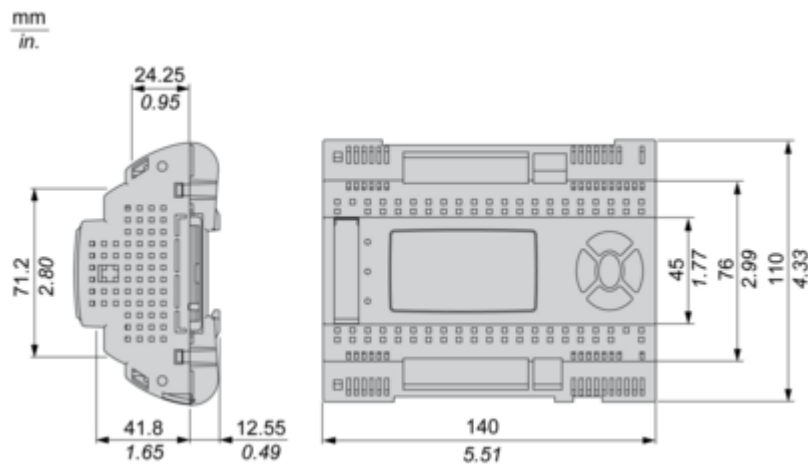
 Rohs Exemption Information [Yes](#)

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

Dimensions Drawings

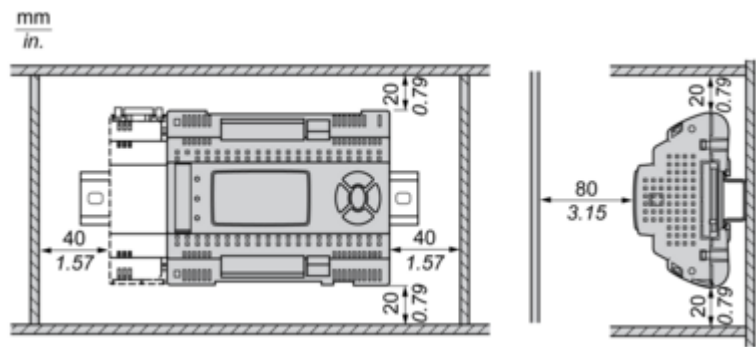
Dimensions



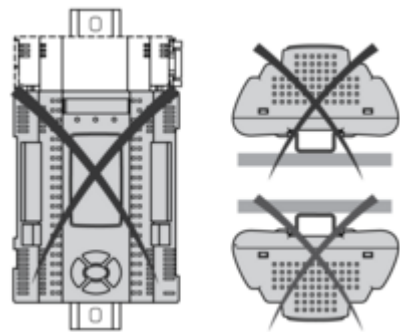
Mounting and Clearance

Mounting and Clearance

Clearance



Misplacement

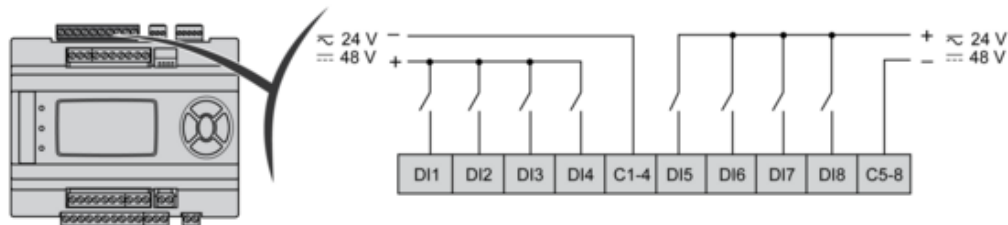


Connections and Schema

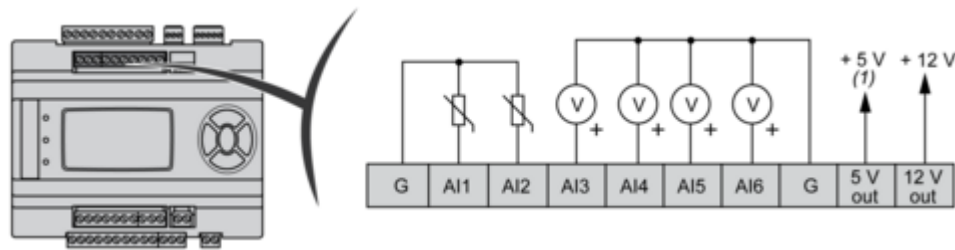
Power Supply



Digital Inputs

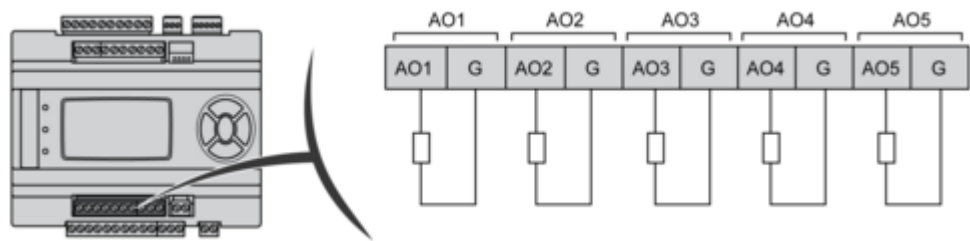


Analog Inputs

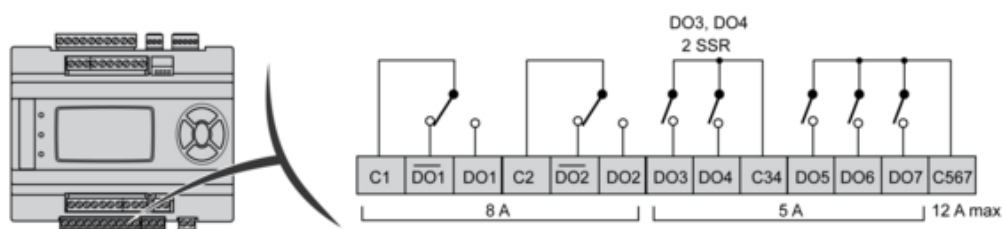


(1) Max current: 50 mA.
G : Ground

Analog Outputs

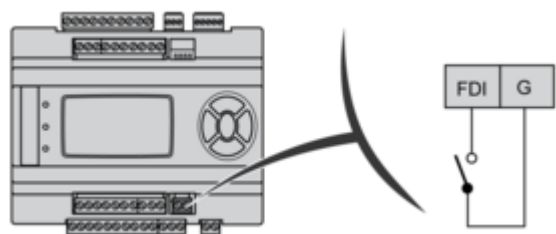


Digital Outputs

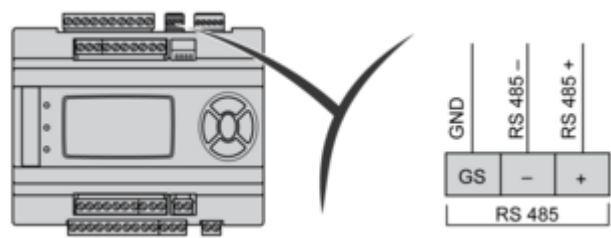


C : common

Fast Digital Input

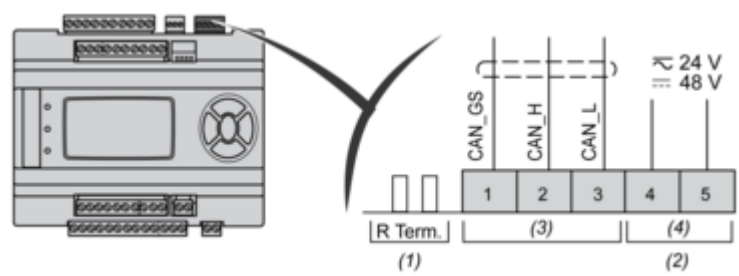


Serial Line Port (RS 485)



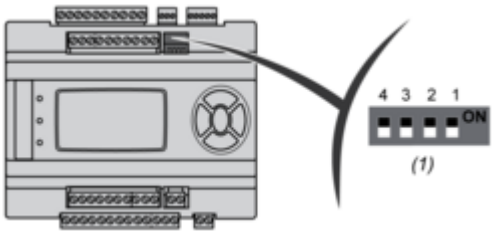
Apply 120 Omega terminal resistance
GS serial GND isolated from G

CAN Expansion Bus



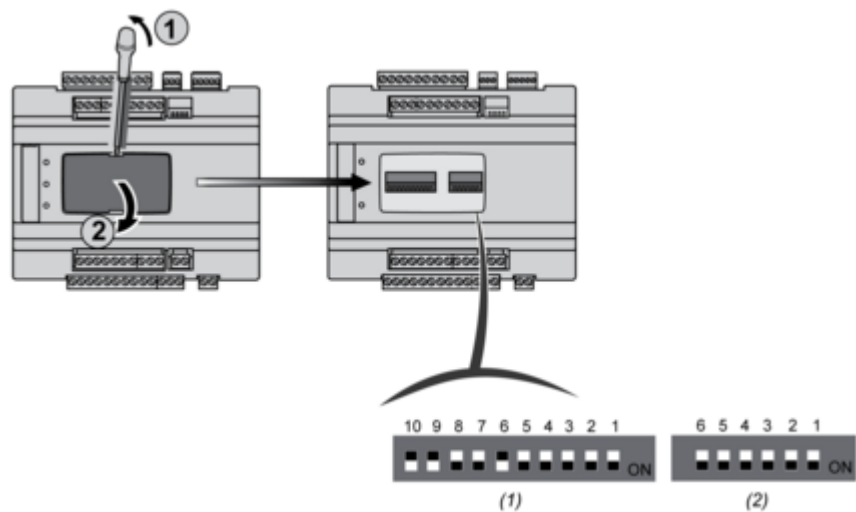
- (1) CAN terminal resistance
- (2) Output for remote keyboard
- (3) CANOPEN
- (4) Power Out

4 DipSwitches



(1) 4 DIP SWITCH
LOW Address

6 - 10 DipSwitches



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