



### Main

Range of Product	Modicon M171/M172
Product or Component Type	Programmable controllers
Product Specific Application	HVAC
Variant	Programmable
Total inputs/outputs	18
Discrete input number	2
Discrete output number	1 relay outputs SPDT with independent common 2 relay outputs SPST with same common 3 relay outputs SPST with independent common
Discrete output current	3 A relay SPST 3 A relay SPDT
Analogue input number	8 configurable by pair
Analogue output number	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 mini B - USB device port Mini-B 2 RS485 - screw terminal block Modbus serial link or BACnet MS/TP)
Input/output number	2 analog output 6 digital output 8 analog input 2 digital input
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	20 kOhm
Analogue input type	NTC NK103 Beta 3977 temperature probe - 40...137 °C 0.1 °C 10 kOhm at 25 °C)[RETURN]NTC 103AT-2 Beta 3435 temperature probe - 50...110 °C 0.1 °C 10 kOhm at 25 °C)[RETURN] voltage 0...10 V 1 digit > 10 kOhm[RETURN] voltage 0...5 V 1 digit > 20 kOhm absolute or ratiometric)[RETURN] impedance 0...1500 hOhm 1 hOhm 10 kOhm[RETURN] impedance 0...300 daOhm 1 daOhm 1500 Ohm[RETURN]PTC temperature probe - 55...150 °C 0.1 °C 1500 Ohm[RETURN]Pt 1000 temperature probe - 200...850 °C 0.1 °C 1500 Ohm[RETURN] current 0...20 mA/4...20 mA 1 digit < 150 Ohm[RETURN] direct input 10 kOhm Dry contact)
Measurement accuracy	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
Sensor power supply	5 V DC 40 mA supplied by the controller 24 V DC 100 mA supplied by the controller

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

[Us] rated supply voltage	24 V +/- 10 % AC 20...38 V DC
Power consumption in W	11 W 24 V AC/DC
Realtime clock	Built-in <= 30 s/month -4...140 °F (-20...60 °C)
Display type	Backlit LCD - 128 x 64 pixels
Overvoltage category	II
Local signalling	For programmable 1 LED (red) For programmable 1 LED (yellow) For programmable 1 LED (green) For power 1 LED (green)
Mounting Support	Panel mounting with accessory DIN rail
Width	2.83 in (72 mm)
Height	4.33 in (110 mm)
Depth	2.38 in (60.5 mm)
Net Weight	0.43 lb(US) (0.195 kg)

## Environment

Directives	2014/30/EU - electromagnetic compatibility 2014/35/EU - low voltage directive
Standards	IEC 60730-2-9 IEC 61000-4-11 IEC 61000-4-6 IEC 60730-1 UL 60730-1 CAN/CSA-E60730-1 IEC 61000-4-2 IEC 60068-2-27 CSA E60730-2-9 IEC 61000-4-5 IEC 61000-4-3 IEC 61000-4-4 IEC 60068-2-6 Fc UL 60730-2-9 UL94 (material V0)
Product Certifications	CE[RETURN]RCM[RETURN]cURus[RETURN]EAC[RETURN]CSA
Ambient air temperature for operation	-4...140 °F (-20...60 °C)
Ambient Air Temperature for Storage	-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	22537-M171 / M172 HVAC CONTROLLERS
Discount Schedule	PC12
GTIN	3606481285034
Returnability	Yes
Country of origin	IT

## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.95 in (7.500 cm)
Package 1 Width	3.74 in (9.500 cm)
Package 1 Length	5.31 in (13.500 cm)
Package 1 Weight	9.31 oz (264.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Height	5.91 in (15.000 cm)
Package 2 Width	11.81 in (30.000 cm)

Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	9.48 lb(US) (4.300 kg)

### Offer Sustainability

Sustainable offer status	Green Premium product
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
Mercury free	Yes
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
RoHS exemption information	<a href="#">Yes</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
Upgradeability	Upgradeable through digital modules and upgraded components

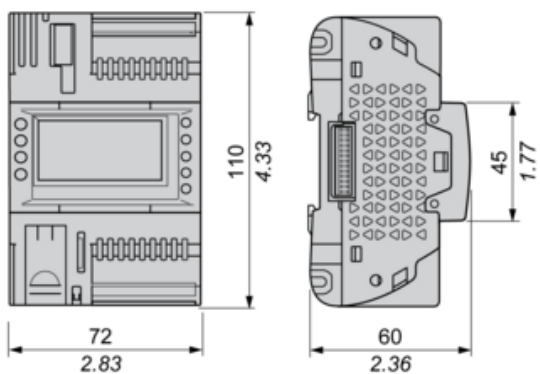
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Dimensions Drawings

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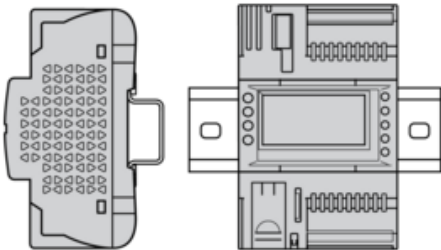
Dimensions

mm  
in.

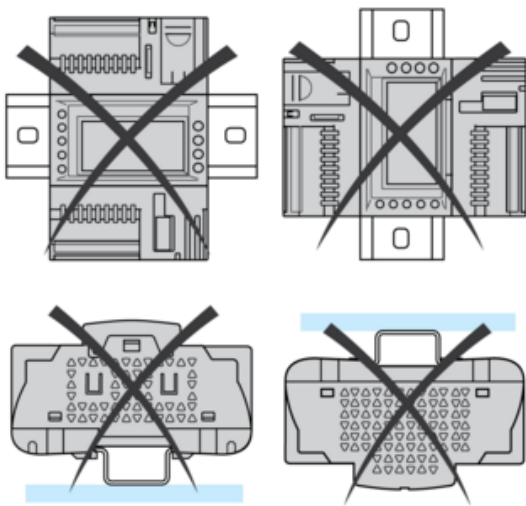


Mounting Positions

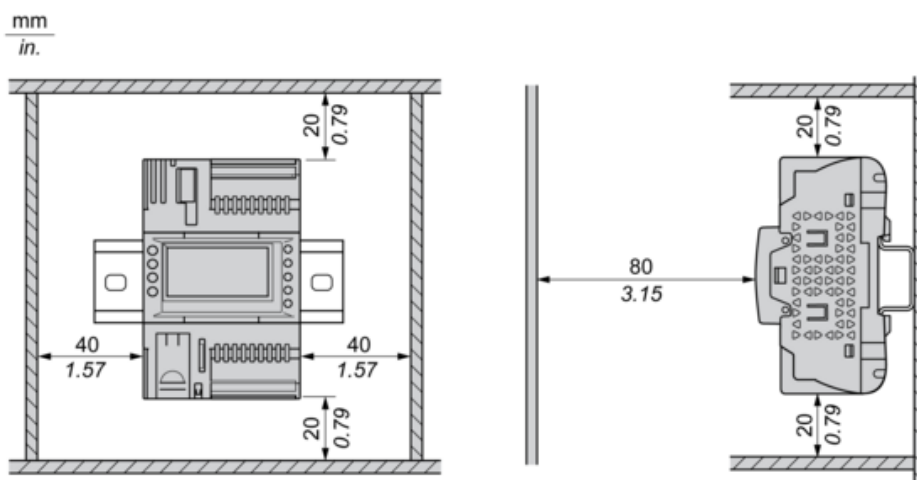
Correct Mounting Position



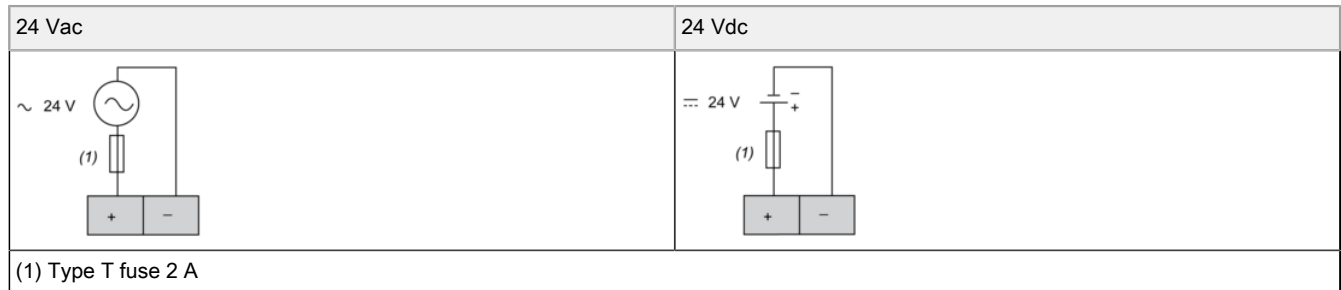
Incorrect Mounting Position



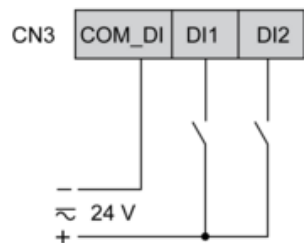
Clearance



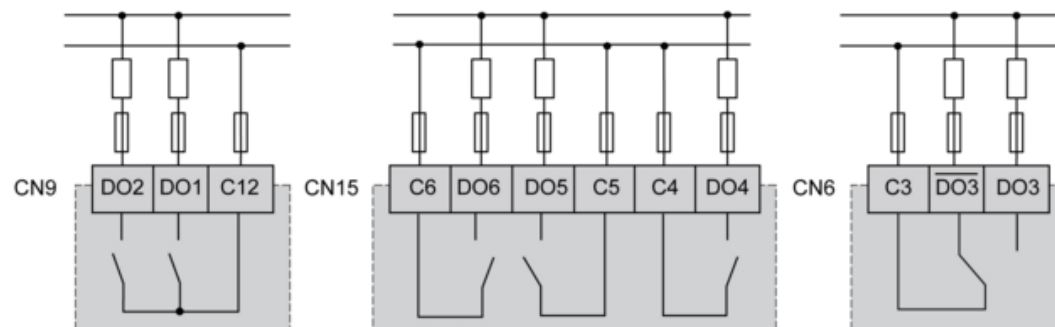
Power Supply



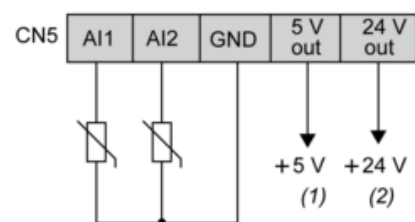
CN3 Fast Digital Inputs



CN9, CN15, CN6 High Voltage Relay SPST Digital Output

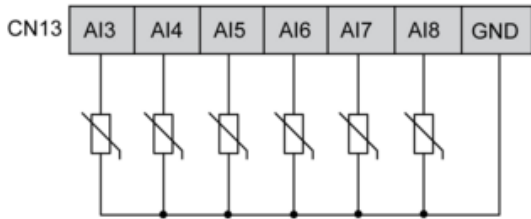


CN5, CN13 Analog Inputs

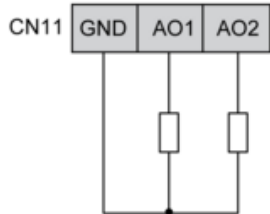


(1) Max. current : 40 mA.

(2) Max. current : 100 mA.

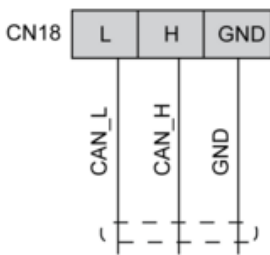


### CN11 Analog Outputs

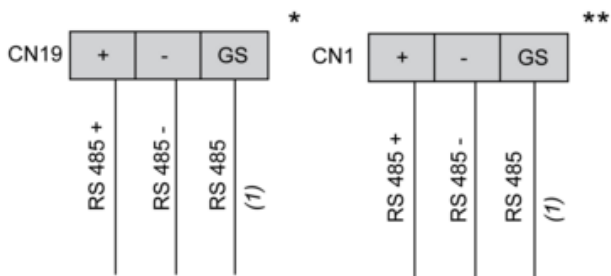


AO1, AO2 can be used also as PWM generator, up to 2kHz.

### CN18 CAN Expansion Bus Port



### CN19, CN1 RS485 Bus Port



(1) Signal reference

\* RS485-1 Modbus SL

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