

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
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 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	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

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

Analogue input type	NTC NK103 Beta 3977 temperature probe - 40...137 °C 0.1 °C 10 kOhm at 25 °C) NTC 103AT-2 Beta 3435 temperature probe - 50...110 °C 0.1 °C 10 kOhm at 25 °C) voltage 0...10 V 1 digit > 10 kOhm voltage 0...5 V 1 digit > 20 kOhm absolute or ratiometric) impedance 0...1500 hOhm 1 hOhm 10 kOhm impedance 0...300 daOhm 1 daOhm 1500 Ohm PTC temperature probe - 55...150 °C 0.1 °C 1500 Ohm Pt 1000 temperature probe - 200...850 °C 0.1 °C 1500 Ohm current 0...20 mA/4...20 mA 1 digit < 150 Ohm 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
[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	DIN rail Panel mounting with accessory
Width	2.83 in (72 mm)
Height	4.33 in (110 mm)
Depth	2.38 in (60.5 mm)
Net Weight	0.50 lb(US) (0.225 kg)

## Environment

Directives	2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility
Standards	IEC 61000-4-6 CAN/CSA-E60730-1 IEC 61000-4-5 CSA E60730-2-9 IEC 61000-4-2 UL 60730-1 IEC 61000-4-3 EN 60068-2-27 UL 60730-2-9 EN 60068-2-6 Fc IEC 61000-4-4 EN 60730-2-9 IEC 61000-4-11 EN 60730-1
Product certifications	CSA RCM CURus CE

## EAC

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

### Ordering and shipping details

Category	22537 - M171 / M172 HVAC CONTROLLERS
Discount Schedule	PC12
GTIN	00785901068433
Nbr. of units in pkg.	1
Package weight(Lbs)	1 lb(US) (0.45 kg)
Returnability	Yes
Country of origin	IT

### Packing Units

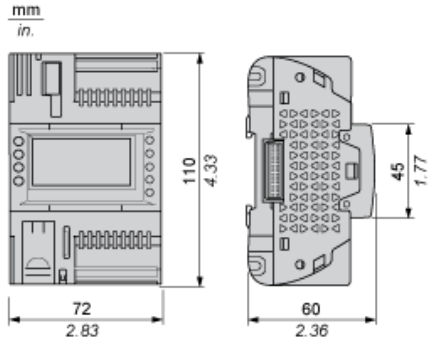
Unit Type of Package 1	PCE
Package 1 Height	5.12 in (13 cm)
Package 1 width	5.43 in (13.8 cm)
Package 1 Length	3.62 in (9.2 cm)
Unit Type of Package 2	S02
Number of Units in Package 2	8
Package 2 Weight	6.06 lb(US) (2.751 kg)
Package 2 Height	5.91 in (15 cm)
Package 2 width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)

### 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) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</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.

Dimensions Drawings

Dimensions

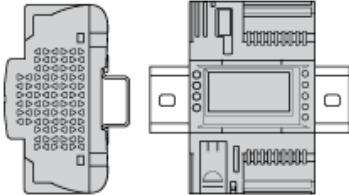


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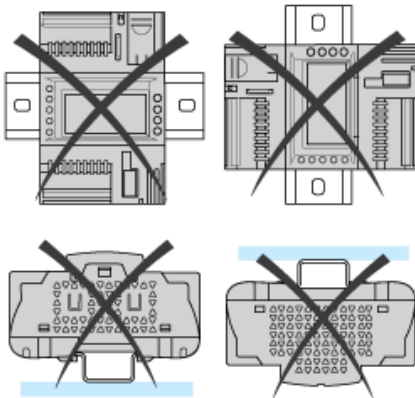
Mounting Positions

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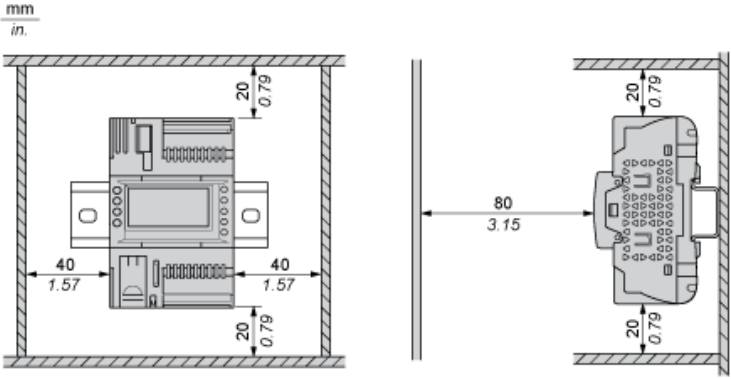
Correct Mounting Position



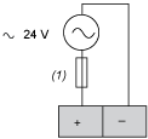
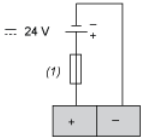
Incorrect Mounting Position



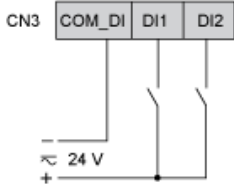
Clearance



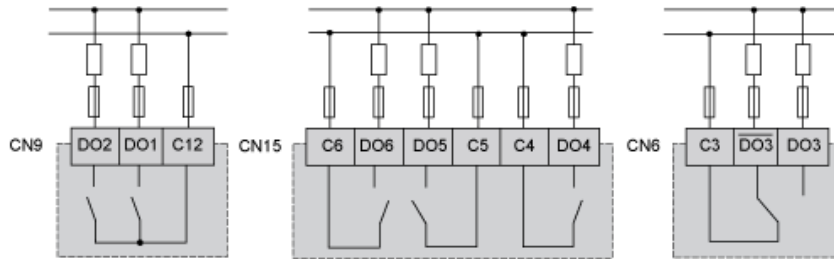
Power Supply

24 Vac	24 Vdc
	

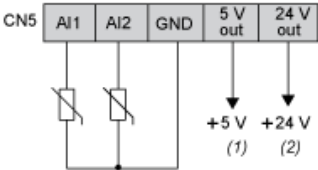
CN3 Fast Digital Inputs



CN9, CN15, CN6 High Voltage Relay SPST Digital Output



CN5, CN13 Analog Inputs



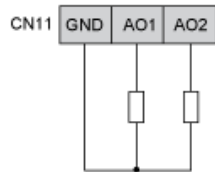
- (1) Max. current : 40 mA.
- (2) Max. current : 100 mA.



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CN11 Analog Outputs

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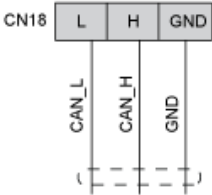


AO1, AO2 can be used also as PWM generator, up to 2kHz.

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CN18 CAN Expansion Bus Port

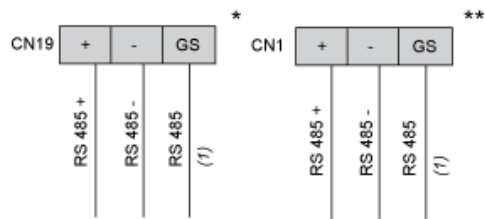
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CN19, CN1 RS485 Bus Port

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(1) Signal reference

\* RS485-1 Modbus SL

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