



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	28
Discrete input number	8
Discrete output number	1 relay outputs SPDT with independent common 3 relay outputs SPST with same common 2 relay outputs SPST with same common 2 relay outputs SPST with independent common
Discrete output current	1 A relay SPDT 3 A relay SPST
Analogue input number	8 configurable by pair
Analogue output number	2 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	8 digital input 8 analog input 4 analog output 8 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	20 kOhm

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

Analogue input type	impedance 0...1500 hOhm impedance 0...300 daOhm 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
Sensor power supply	5 V DC 50 mA supplied by the controller 24 V DC 150 mA supplied by the controller
[Us] rated supply voltage	24 V +/- 10 % AC 20...38 V DC
Power consumption in W	15 W 24 V AC/DC
Realtime clock	Built-in -4...140 °F (-20...60 °C)
Display type	Backlit LCD - 128 x 64 pixels
Overvoltage category	II
Local signalling	Programmable 1 LED red) Programmable 1 LED yellow) Programmable 1 LED green) Power 1 LED green)
Mounting support	Panel mounting with accessory DIN rail
Width	5.67 in (144 mm)
Height	4.33 in (110 mm)
Depth	2.38 in (60.5 mm)
Net weight	0.66 lb(US) (0.3 kg)

Environment

Directives	86/188/EEC - physical agents (noise) directive 2011/65/EU - RoHS directive 1907/2006/EC - REACH directive 2006/95/EC - low voltage directive
Standards	EN/IEC 60730
Product certifications	EAC (pending) CSA (pending) CE CURus (pending)
Ambient air temperature for operation	-4...140 °F (-20...60 °C) UL 60730-1 -4...149 °F (-20...65 °C) with derating UL 60730-1
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

Packing Units

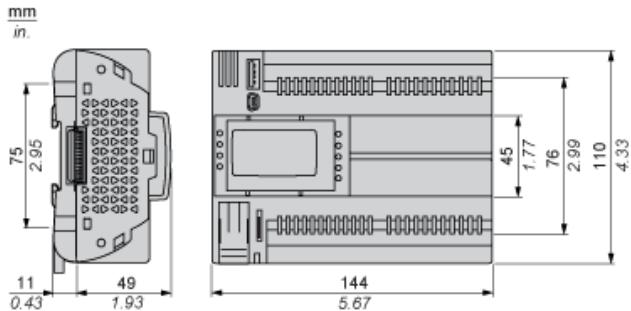
Package 1 Weight	0.90 lb(US) (0.410 kg)
Package 1 Height	1.350 dm
Package 1 width	0.900 dm
Package 1 Length	1.860 dm

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Mercury free	Yes
RoHS exemption information	Yes

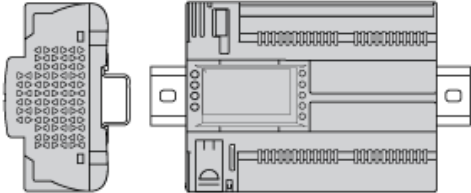
China RoHS Regulation	China RoHS declaration
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions



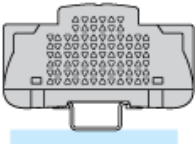
Mounting Positions

Correct Mounting Position

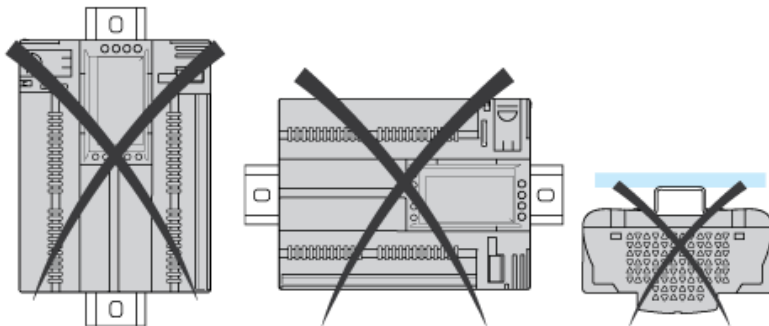


Acceptable Mounting Position

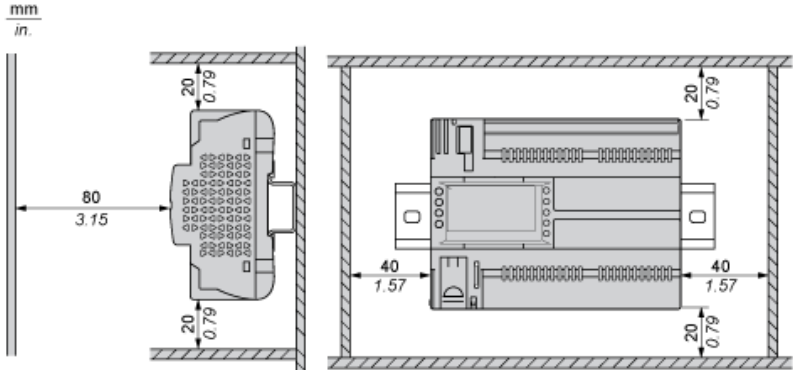
Controller can be mounted horizontally upward with a temperature derating (maximum ambient temperature: 60 °C (140 °F)).



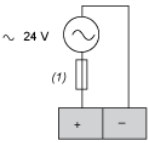
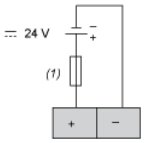
Incorrect Mounting Position



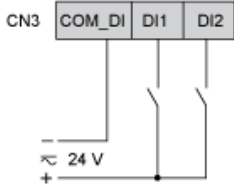
Clearance



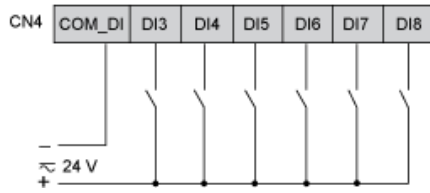
Power Supply

24 Vac	24 Vdc
	

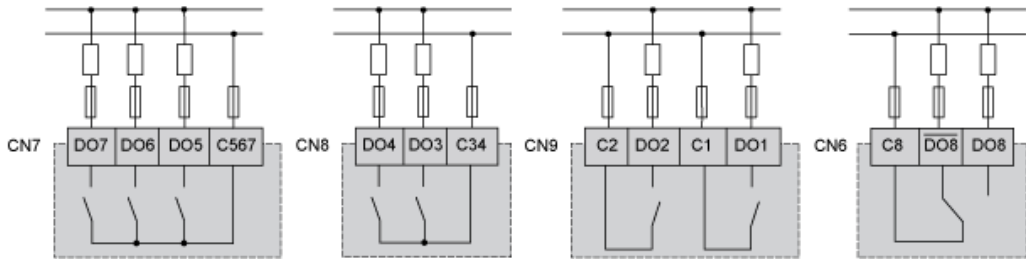
CN3 Fast Digital Inputs



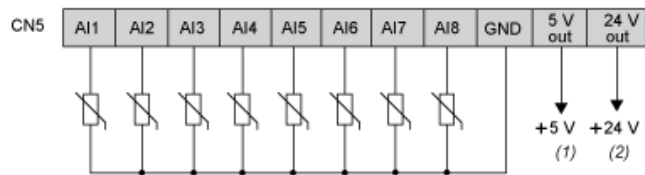
CN4 Digital Inputs



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



CN5 Analog Inputs



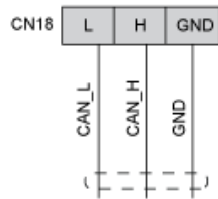
- (1) Max. current : 50 mA.
- (2) Max. current : 150 mA.

CN2 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

