



### 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 for relay outputs SPDT with independent common 3 for relay outputs SPST with same common 2 for relay outputs SPST with same common 2 for relay outputs SPST with independent common
Discrete output current	1 A for relay SPDT 3 A for relay SPST
Analogue input number	8 configurable by pair
Analogue output number	2 voltage, range: 0...10 V 2 voltage/current, range: 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(s) 8 analog input(s) 4 analog output(s) 8 digital output(s)
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
Analogue input type	Impedance 0...1500 hOhm Impedance 0...300 daOhm NTC temperature probe - 50...110 °C - resolution: 0.1 °C (extended) Voltage 0...10 V NTC temperature probe - 40...150 °C - resolution: 0.1 °C Current 0...20 mA/4...20 mA PTC temperature probe - 55...150 °C - resolution: 0.1 °C Voltage 0...5 V (absolute or ratiometric) Pt 1000 temperature probe - 200...850 °C - resolution: 0.1 °C
Sensor power supply	5 V DC at 50 mA supplied by the controller 24 V DC at 150 mA supplied by the controller
[Us] rated supply voltage	24 V +/- 10 % AC 20...38 V DC
Power consumption in W	15 W at 24 V AC/DC
Realtime clock	Built-in clock at -20...60 °C
Display type	Backlit LCD - 128 x 64 pixels
Overvoltage category	II
Local signalling	1 LED (red) for programmable 1 LED (yellow) for programmable 1 LED (green) for programmable 1 LED (green) for power

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.

Mounting support	Panel mounting with accessory DIN rail
Width	144 mm
Height	110 mm
Depth	60.5 mm
Net weight	0.3 kg

## Environment

Directives	86/188/EEC - physical agents (noise) 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	-20...60 °C conforming to UL 60730-1 -20...65 °C with derating conforming to UL 60730-1
Ambient air temperature for storage	-30...70 °C
Relative humidity	5...95 % non-condensing
IP degree of protection	IP20
Pollution degree	2

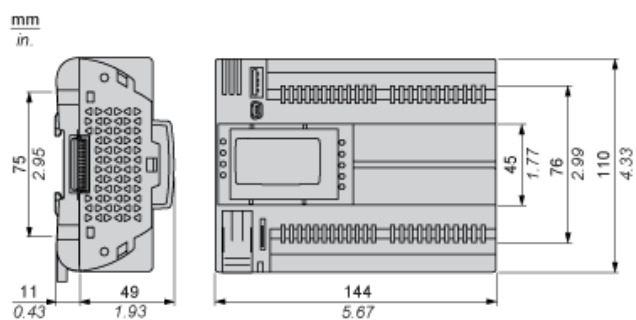
## Packing Units

Package 1 Weight	0.410 kg
Package 1 Height	1.350 dm
Package 1 width	0.900 dm
Package 1 Length	1.860 dm

## Offer Sustainability

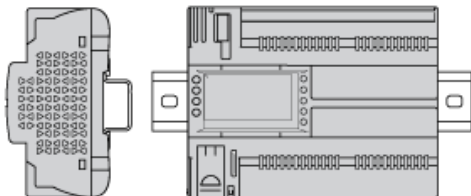
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China 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



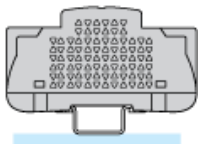
## Mounting Positions

### Correct Mounting Position

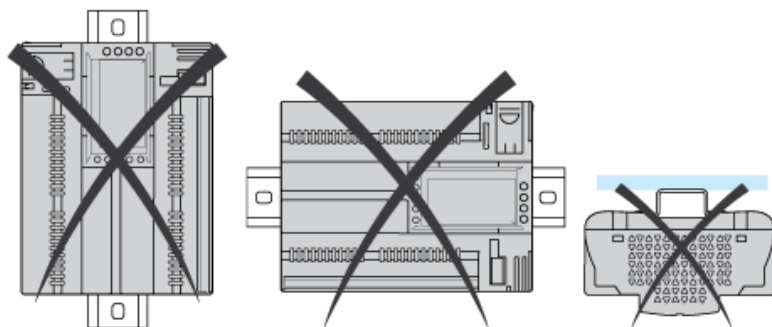


### Acceptable Mounting Position

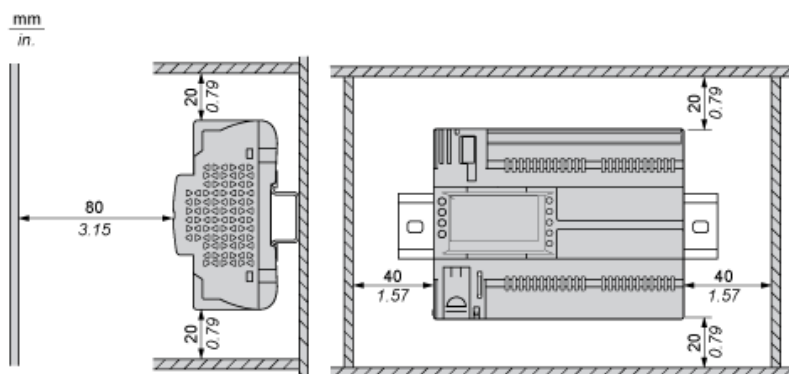
Controller can be mounted horizontally upward with a temperature derating (maximum ambient temperature: 60 °C (140 °F)).



### Incorrect Mounting Position



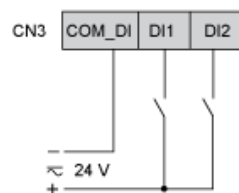
## Clearance



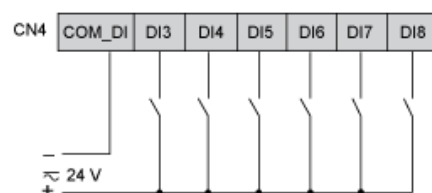
## Power Supply

24 Vac	24 Vdc

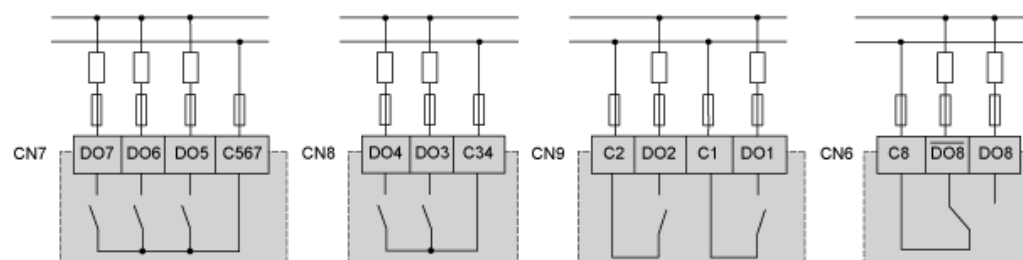
## CN3 Fast Digital Inputs



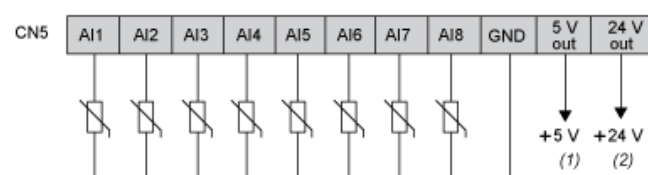
## CN4 Digital Inputs



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

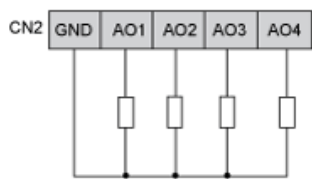


## CN5 Analog Inputs



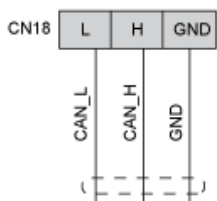
- (1) Max. current : 50 mA.  
(2) Max. current : 150 mA.

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

