



Main

Range of product	Modicon M171/M172
Product or component type	Programmable controllers
Product specific application	HVAC and pumping solution
Variant	Programmable
Number of inputs/outputs	42
Discrete input number	12
Discrete output number	2 for relay outputs SPST with same common 2 for relay outputs SPST with independent common 2 for relay outputs SPDT with same common 3 for relay outputs SPST with independent common
Discrete output current	1 A for relay SPDT 3 A for relay SPST
Analogue input number	12 configurable by pair

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	12 analog input(s) 6 analog output(s) 12 digital input(s) 12 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	Direct input Impedance 0...1500 hOhm Impedance 0...300 daOhm Voltage 0...5 V (absolute or ratiometric)

	Temperature probe, PTC - 55...150 °C - resolution: 0.1 °C Temperature probe, NTC - 50...110 °C - resolution: 0.1 °C (extended) Temperature probe, NTC - 40...150 °C - resolution: 0.1 °C Temperature probe, Pt 1000 - 200...850 °C - resolution: 0.1 °C Voltage 0...10 V Current 0...20 mA/4...20 mA
Analogue output number	4 voltage, range: 0...10 V 2 voltage/current, range: 4...20 mA or 0...10 V or PWM (2 kHz)
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 AC (+/- 10 %) 20...38 V DC
Power consumption in W	15 W at 24 V AC/DC
Realtime clock	Built-in realtime clock at -20...60 °C
Display type	Backlit LCD - 128 x 64 pixels
Overvoltage category	II
Local signalling	1 LED red programmable 1 LED yellow programmable 1 LED green programmable 1 LED green power
Mounting support	DIN rail Panel mounting with accessory
Width	144 mm
Height	110 mm
Depth	60.5 mm
Product weight	0.385 kg

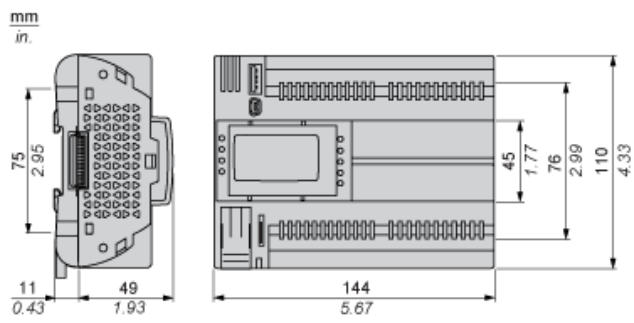
Environment

Directives	1907/2006/EC - REACH directive 86/188/EEC - physical agents (noise) directive 2011/65/EU - RoHS directive 2006/95/EC - low voltage directive
Standards	EN/IEC 60730
Product certifications	CE EAC (pending) cURus (pending) CSA (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

Offer Sustainability

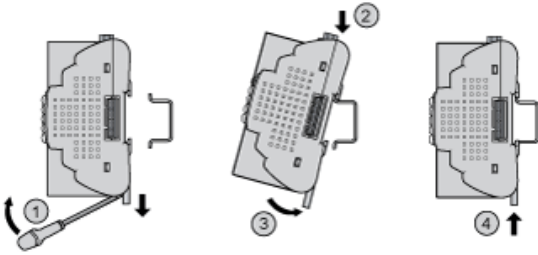
Sustainable offer status	Not Green Premium product
RoHS (date code: YYWW)	Compliant - since 1529 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold

Dimensions

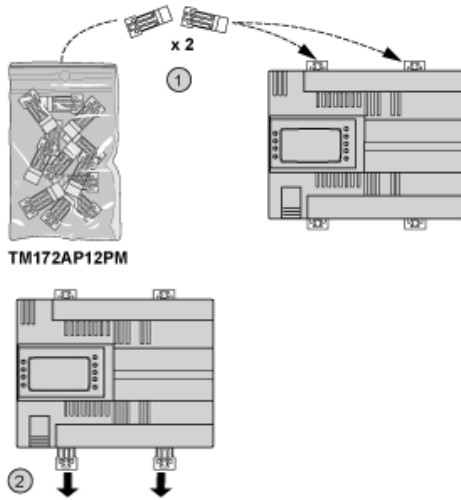


Mounting and Clearance

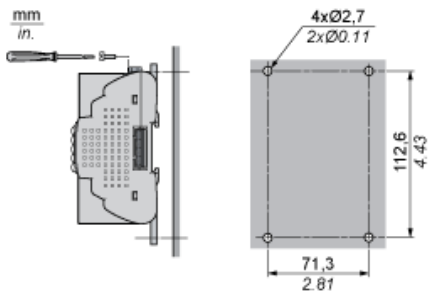
DIN Rail Mounting



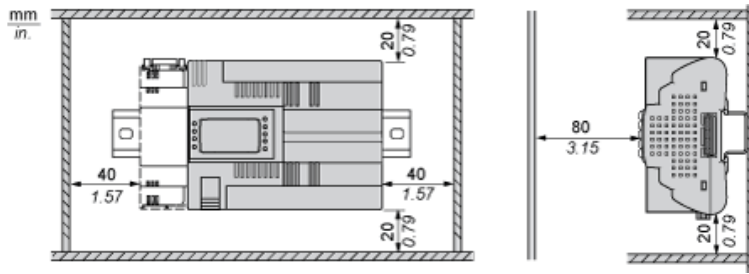
Clips for Panel Mounting



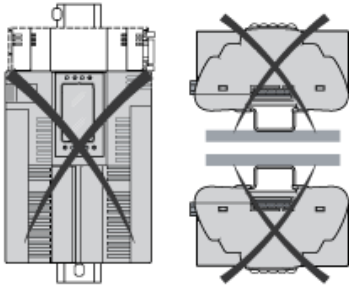
Panel Mounting



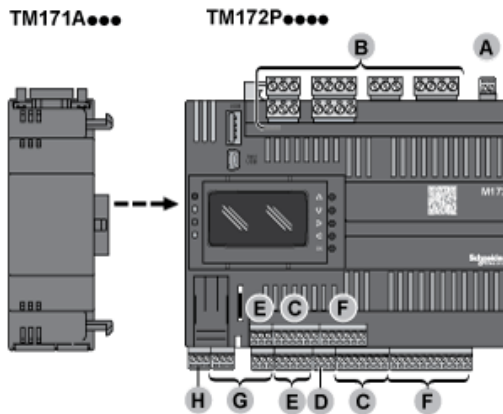
Clearance



Incorrect Mounting Position



Assembling a Module



Wiring Sections and Torque

A, C, D, E, F, G, H

mm in.	$\frac{9}{0.35}$								
mm ²	0.14...1.5	0.14...1.5	0.25...1.5	0.25...0.5	2 x 0.08...0.5	2 x 0.08...0.75	2 x 0.25...0.34	2 x 0.5	
AWG	26...16	26...16	22...16	22...20	2 x 28...20	2 x 28...20	2 x 24...22	2 x 20	

		N·m	0.22...0.25
Ø 2.5 mm (0.1 in.)		lb·in	1.95...2.21

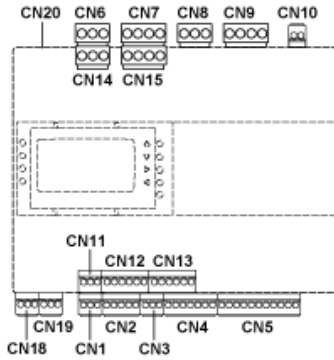
B

mm in.	$\frac{7}{0.28}$								
mm ²	0.2...2.5	0.2...2.5	0.25...2.5	0.25...2.5	2 x 0.2...1	2 x 0.2...1.5	2 x 0.25...1	2 x 0.5...1.5	
AWG	24...14	24...14	22...14	22...14	2 x 24...18	2 x 24...16	2 x 22...18	2 x 20...16	

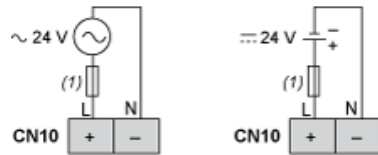
		N·m	0.5...0.6
Ø 3.5 mm (0.14 in.)		lb·in	4.42...5.31

Connections and Schema

Logic Controller Connectors

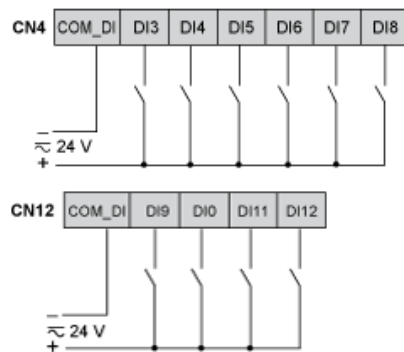


Power Supply



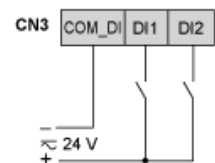
(1) Type T fuse 2 A

Digital Inputs



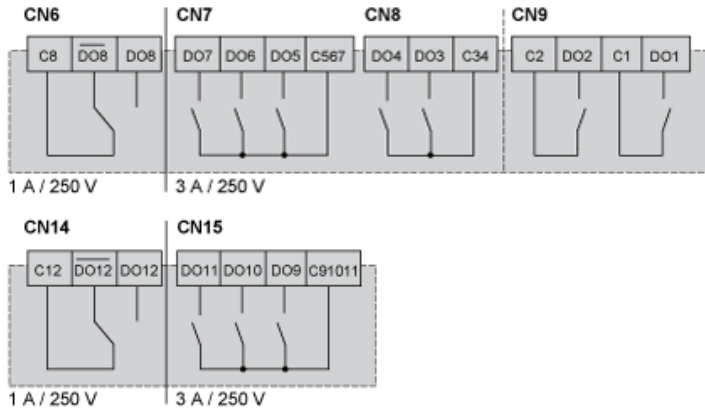
The COM_DI terminals are not connected internally.

Fast Digital Inputs



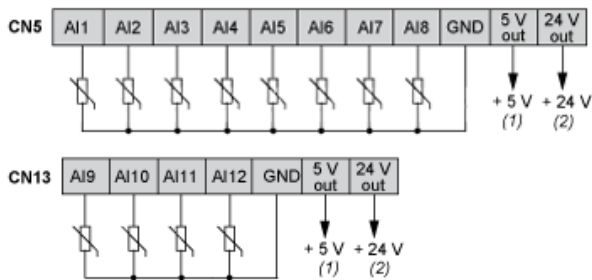
Pulse / Frequency counter up to 2 kHz.

Digital Outputs



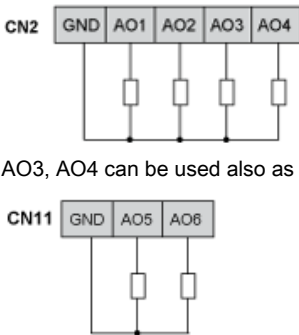
The Cx terminals are not connected internally.

Analog Inputs



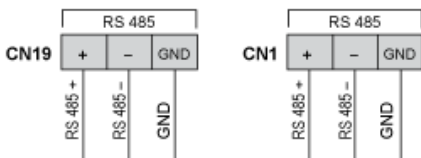
- (1) (CN5 + CN13) Max. current: 50 mA.
- (2) (CN5 + CN13) Max. current: 150 mA.

Analog Outputs



AO3, AO4 can be used also as PWM generator, up to 2 kHz.

RS 485 - Modbus SL or BACnet MS/TP



Apply 120 Ω terminal resistance.

CAN Expansion Bus

