



Main

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|------------------------------|---|
| 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

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|------------------------|---|
| 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 |
| 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) |

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.

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|---------------------------|--|
| 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 | Without Display |
| 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 | 0.44 lb(US) (0.2 kg) |

Environment

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|---------------------------------------|---|
| Directives | 2014/35/EU - low voltage directive 2014/30/EU - electromagnetic compatibility |
| Standards | IEC 61000-4-5 IEC 61000-4-3 IEC 61000-4-2 IEC 60068-2-27 IEC 60730-1 IEC 60068-2-6 Fc UL 60730-1 UL 60730-2-9 IEC 61000-4-4 CAN/CSA-E60730-1 IEC 61000-4-11 IEC 61000-4-6 CSA E60730-2-9 IEC 60730-2-9 UL94 (material V0) |
| Product Certifications | CSA[RETURN]EAC[RETURN]RCM[RETURN]CE[RETURN]cURus |
| 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

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|-------------------|------------------------------------|
| Category | 22537-M171 / M172 HVAC CONTROLLERS |
| Discount Schedule | PC12 |
| GTIN | 3606481390066 |
| Returnability | Yes |
| Country of origin | IT |

Packing Units

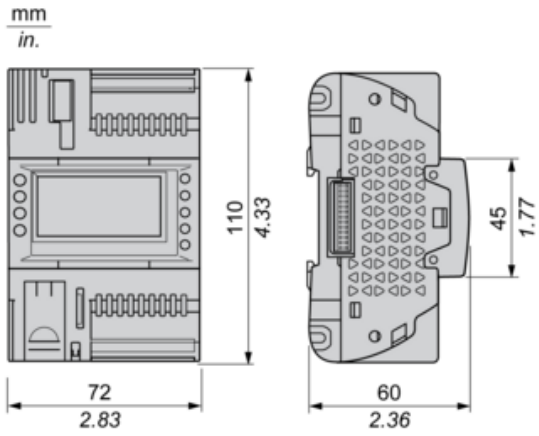
| | |
|------------------------------|------------------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 2.76 in (7.000 cm) |
| Package 1 Width | 3.62 in (9.200 cm) |
| Package 1 Length | 5.20 in (13.200 cm) |
| Package 1 Weight | 8.92 oz (253.000 g) |
| 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 | 8.95 lb(US) (4.060 kg) |

Offer Sustainability

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|----------------------------|---|
| 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 www.P65Warnings.ca.gov |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| Mercury free | Yes |
| China RoHS Regulation | China RoHS Declaration |
| RoHS exemption information | Yes |
| 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. |
| Upgradeability | Upgradeable through digital modules and upgraded components |

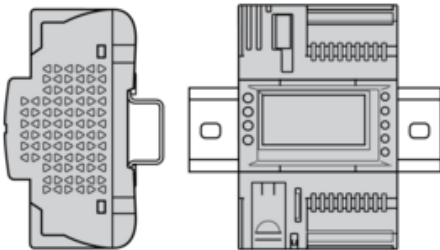
Dimensions Drawings

Dimensions

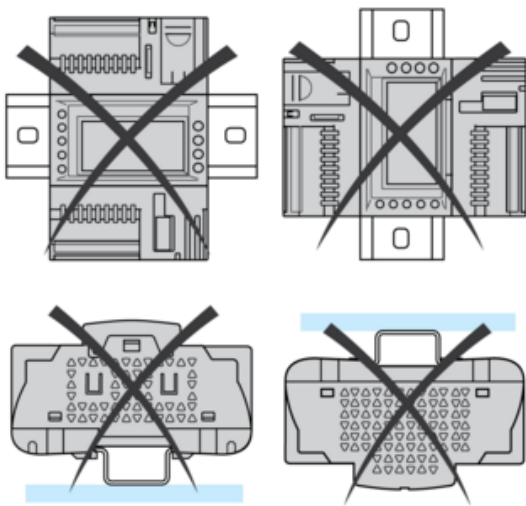


Mounting Positions

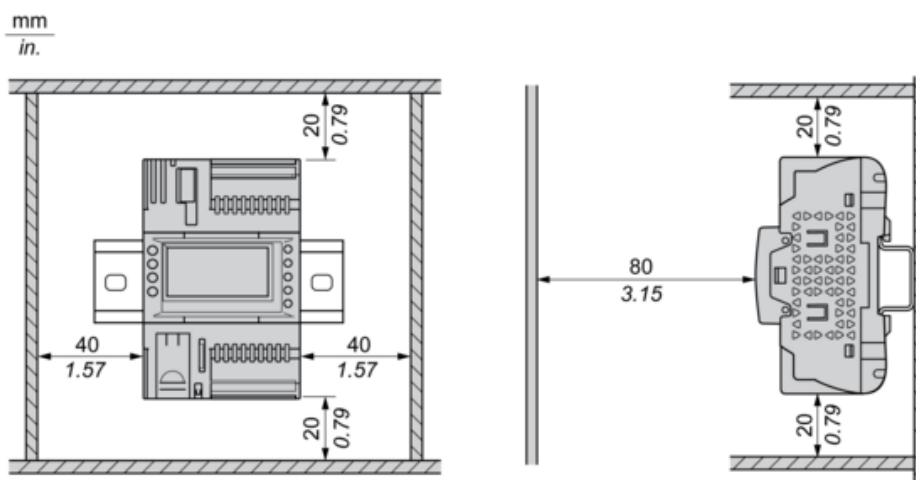
Correct Mounting Position



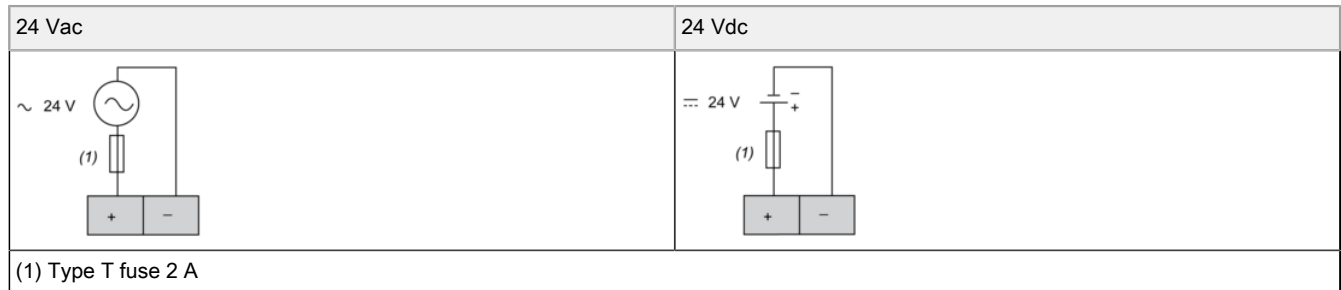
Incorrect Mounting Position



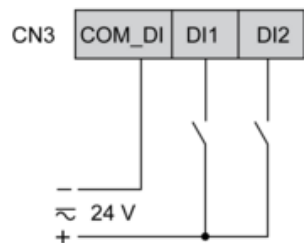
Clearance



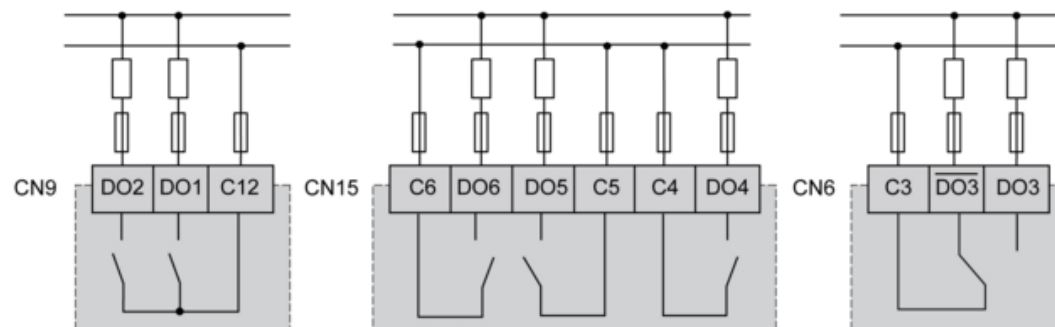
Power Supply



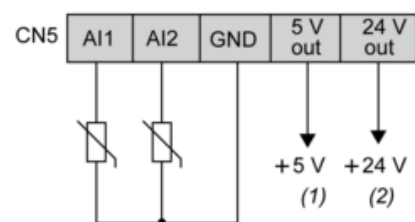
CN3 Fast Digital Inputs



CN9, CN15, CN6 High Voltage Relay SPST Digital Output

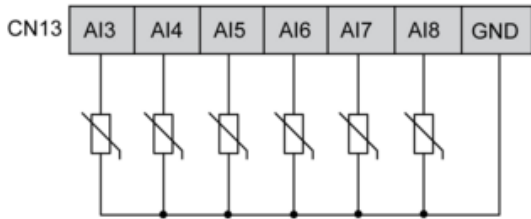


CN5, CN13 Analog Inputs

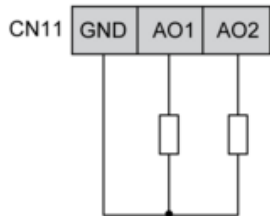


(1) Max. current : 40 mA.

(2) Max. current : 100 mA.

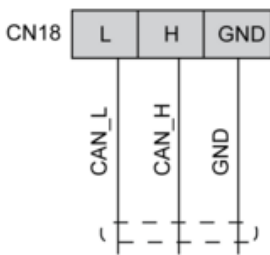


CN11 Analog Outputs

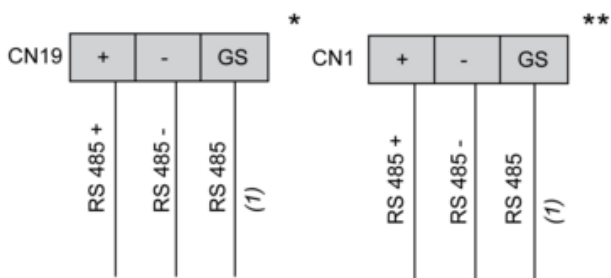


AO1, AO2 can be used also as PWM generator, up to 2kHz.

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