



### Main

|                              |                                                                                                                       |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Range of product             | Modicon M171/M172                                                                                                     |
| Product or component type    | Controller                                                                                                            |
| Product specific application | HVAC and pumping solution                                                                                             |
| Variant                      | Programmable                                                                                                          |
| Total inputs/outputs         | 22                                                                                                                    |
| Discrete input number        | 6                                                                                                                     |
| Discrete output number       | 1 for open collector<br>3 for relay outputs SPST with same common<br>2 for relay outputs SPST with independent common |
| Discrete output current      | 2 A for relay                                                                                                         |
| Analogue input number        | 2 configurable<br>3 analog input NTC                                                                                  |
| Analogue output number       | 2 PWM/PPM<br>3 voltage, range: 0...10 V                                                                               |

### Complementary

|                           |                                                                                                                                                                 |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of port            | 1 LAN expansion bus<br>1 RS485 - screw terminal block (Modbus serial link)                                                                                      |
| Input/output number       | 5 analog output(s)<br>6 digital input(s)<br>5 analog input(s)<br>6 digital output(s)                                                                            |
| Discrete input logic      | Sink or source (positive/negative)                                                                                                                              |
| Contacts usage            | Volt-free contacts                                                                                                                                              |
| Analogue input type       | Voltage 0...5 V (ratiometric)<br>Voltage 0...10 V<br>NTC temperature probe - 50...100 °C - resolution: 0.1 °C<br>Current 0...20 mA/4...20 mA<br>Voltage 0...1 V |
| Sensor power supply       | 12 V DC at 85 mA<br>5 V DC at 20 mA                                                                                                                             |
| [Us] rated supply voltage | 12...24 V +/- 10 % AC<br>24 V +/- 10 % DC                                                                                                                       |
| Power consumption in W    | 4 W                                                                                                                                                             |
| Realtime clock            | Built-in clock at -20...55 °C                                                                                                                                   |
| Display type              | Four 7-segment display units                                                                                                                                    |
| Overvoltage category      | II                                                                                                                                                              |
| Local signalling          | 6 LEDs (red)<br>5 LEDs (green)<br>7 LEDs (amber) for programmable                                                                                               |
| Mounting support          | Flush mounting                                                                                                                                                  |
| Width                     | 74 mm                                                                                                                                                           |
| Height                    | 32 mm                                                                                                                                                           |
| Depth                     | 76 mm                                                                                                                                                           |
| Net weight                | 0.164 kg                                                                                                                                                        |

## Environment

|                                       |                                                                                      |
|---------------------------------------|--------------------------------------------------------------------------------------|
| Directives                            | 2006/95/EC - low voltage directive<br>86/188/EEC - physical agents (noise) directive |
| Standards                             | EN/IEC 60730                                                                         |
| Product certifications                | CSA<br>EAC<br>CE<br>CURus                                                            |
| Ambient air temperature for operation | -20...55 °C conforming to UL 60730-1                                                 |
| Ambient air temperature for storage   | -40...85 °C                                                                          |
| Relative humidity                     | 10...90 % non-condensing                                                             |
| IP degree of protection               | IP20                                                                                 |
| Pollution degree                      | 2                                                                                    |

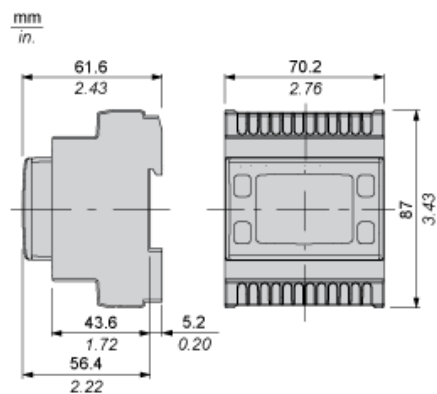
## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 286 g    |
| Package 1 Height             | 13 cm    |
| Package 1 width              | 9.1 cm   |
| Package 1 Length             | 18.5 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 6        |
| Package 2 Weight             | 1.949 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

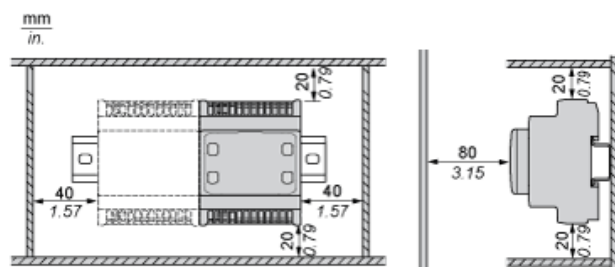
|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| REACH free of SVHC         | Yes                                                                                                                         |
| 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

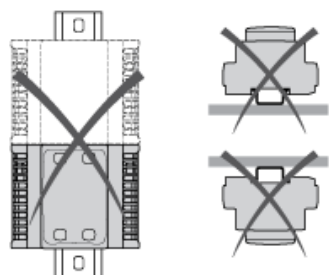


## Mounting and Clearance

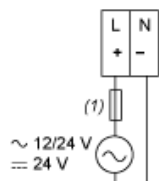
### Clearance



### Misplacement

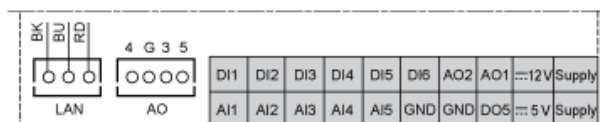
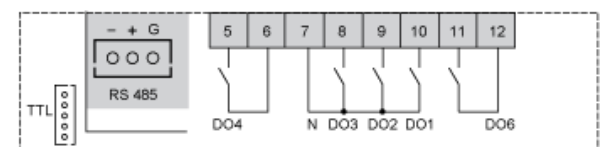
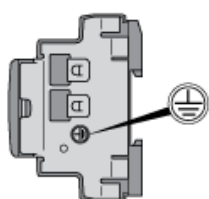


## Power Supply



(1) Type T fuse (Controller: 1.25 A , Expansion: 1 A)

## Wiring Diagram



N : Neutral  
GND Ground  
BK : Black  
BU : Blue  
RD : Red  
AI : Analogue input  
AO : Analogue output  
DI : Digital input  
DO : Digital output