# Product data sheet

Specifications


## Controller, Modicon M171/172/173, optimized blind 22 IO, Modbus

TM171OBM22R

## 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** | 3 voltage, range: 0...10 V<br>2 PWM/PPM, range: 20 kHz, 12 V, 35 mA |

## 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>current 0...20 mA/4...20 mA<br>voltage 0...1 V<br>temperature probe - 50...100 °C - resolution: 0.1 °C |
| **Sensor power supply** | 12 V DC at 85 mA<br>5 V DC at 20 mA |
| **[Us] rated supply voltage** | 24 V<br>12...24 V AC |
| **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** | DIN rail |
| **Width** | 70.2 mm |
| **Height** | 87 mm |
| **Depth** | 61.6 mm |
| **Net weight** | 0.19 kg |

## Environment

| | |
|---|---|
| **Directives** | 2006/95/EC - low voltage directive<br>86/188/EEC - physical agents (noise) directive |
| **Standards** | EN 60730-1<br>UL 60730-1<br>IEC 61000-4-6<br>IEC 61000-4-3<br>UL 60730-2-9<br>IEC 61000-4-4<br>IEC 61000-4-2<br>CSA E60730-2-9<br>IEC 61000-4-5<br>EN 60068-2-6 Fc<br>IEC 61000-4-11<br>EN 60730-2-9<br>EN 60068-2-27<br>CAN/CSA-E60730-1<br>UL94 (material V0) |
| **Product certifications** | EAC<br>CSA<br>RCM<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 Height** | 13.200 cm |
| **Package 1 Width** | 9.000 cm |
| **Package 1 Length** | 18.500 cm |
| **Package 1 Weight** | 251.000 g |
| **Unit Type of Package 2** | S02 |
| **Number of Units in Package 2** | 6 |
| **Package 2 Height** | 15.000 cm |
| **Package 2 Width** | 30.000 cm |
| **Package 2 Length** | 40.000 cm |
| **Package 2 Weight** | 1.726 kg |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | 181 |
| Environmental Disclosure | Product Environmental Profile |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | Yes |
| Packaging without single use plastic | Yes |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) |
| REACh Regulation | REACh Declaration |
| 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 |

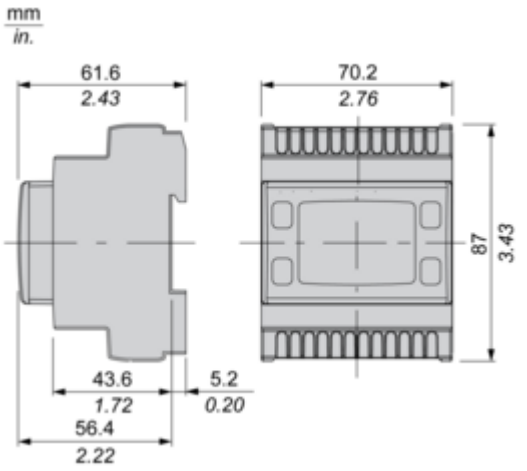
## Use Again

### Repack and remanufacture

| | |
|---|---|
| End of life manual availability | End of Life Information |
| Take-back | No |
| WEEE Label | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Dimensions Drawings

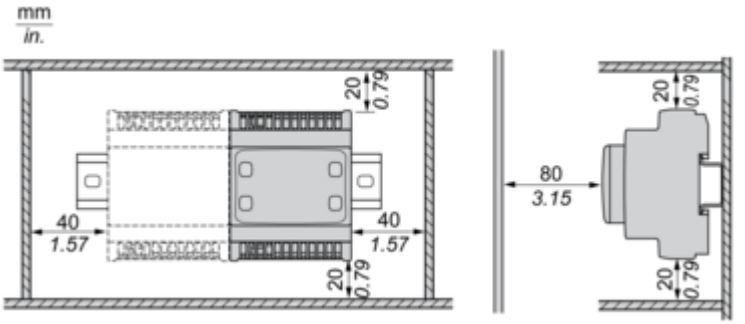
## Dimensions



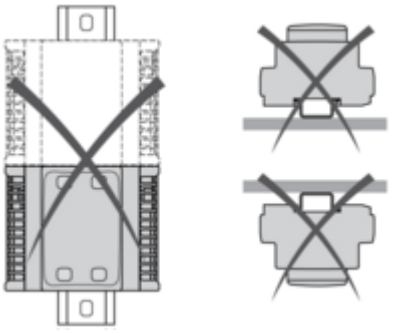
Mounting and Clearance

## Mounting and Clearance

### Clearance

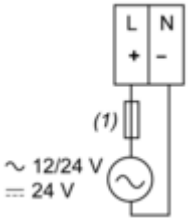



### Misplacement



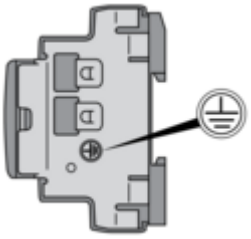
## Connections and Schema

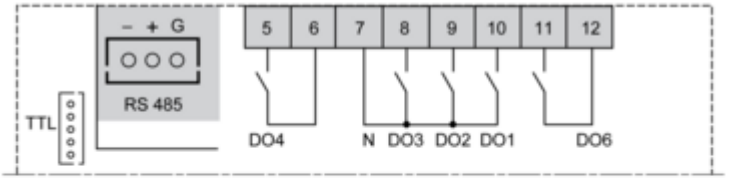
### Power Supply

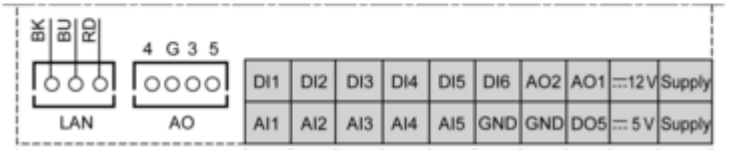



**(1)** Type T fuse (Controller: 1.25 A , Expansion: 1 A)

## Wiring Diagram






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