# Product datasheet

Specifications

## Modicon M171 Optimized Flush mounting 22 I/Os

TM171OF22R

**EAN Code: 3606480752803**

## 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 |
| **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 +/- 20 % AC/DC<br>24 V +/- 20 % DC |
| **Power consumption in W** | 18 W at 24...48 V AC/DC |
| **Realtime clock** | Built-in clock at -10…55 °C |
| **Display type** | Without display |
| **Overvoltage category** | II |
| **Local signalling** | 1 LED (red) for programmable<br>1 LED (yellow) for programmable<br>1 LED (green) for programmable |

| | |
|---|---|
| mounting support | DIN rail |
| Width | 140 mm |
| Height | 110 mm |
| Depth | 61.6 mm |
| net weight | 0.385 kg |

# Environment

| | |
|---|---|
| Directives | 86/188/EEC - physical agents (noise) directive<br>2006/95/EC - low voltage directive |
| Standards | EN/IEC 60730 |
| Product certifications | CE<br>cURus<br>CSA<br>EAC |
| Ambient air temperature for operation | -10…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 | 12.500 cm |
| Package 1 Weight | 226.000 g |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 15 |
| Package 2 Height | 15.000 cm |
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 3.590 kg |

# Logistical informations

| | |
|---|---|
| Country of origin | IT |

# Contractual warranty

| | |
|---|---|
| Warranty | 18 months |

# Sustainability

**Green Premium<sup>TM</sup> label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-$CO_2$ products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium 〉

Guide to assess a product's sustainability 〉

## Resource performance

✅ Upgradeable Through Digital Modules And Upgraded Components

## Well-being performance

✅ Mercury Free

✅ Rohs Exemption Information          Yes

| | |
|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Pro-active compliance (Product out of EU RoHS legal scope) |
| **China Rohs Regulation** | China RoHS declaration |
| **Weee** | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Dimensions Drawings

**Dimensions**

$\frac{mm}{in.}$

70
2.76

76
2.99

71
2.80

29
1.14

74
2.91

32
1.26

76
2.99

28
1.10
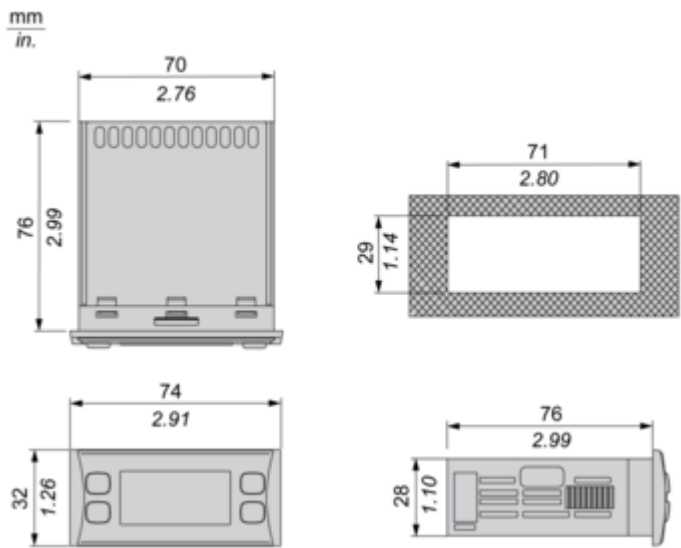
Mounting and Clearance

**Mounting on Panel with the Special Brackets Provided**
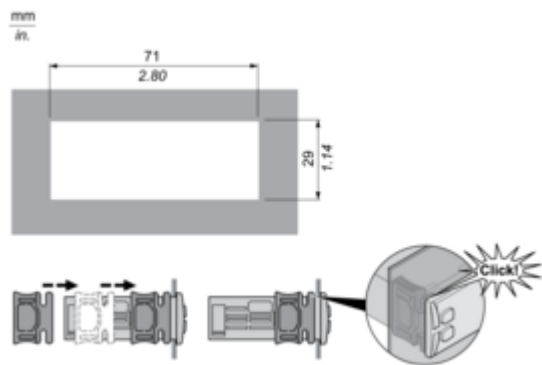
Connections and Schema

**Power Supply**
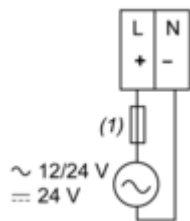


**(1)** Type T fuse (Controller: 1.25 A , Expansion: 1 A)

**Power Supply**

## Wiring Diagram

| Supply ⎓ 5 V | DO5 | GND | GND | AI5 | AI4 | AI3 | AI2 | AI1 |
|---|---|---|---|---|---|---|---|---|
| Supply ⎓ 12 V | AO1 | AO2 | DI6 | DI5 | DI4 | DI3 | DI2 | DI1 |

LAN — RD BU BK

5 3 G 4 — AO

− + G — RS 485

DO6  DO1  DO2  DO3  N   DO6

| 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|---|
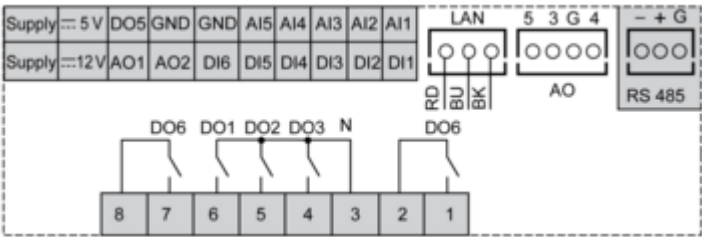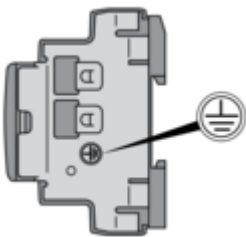
**N :** Neutral
**GND :** Ground
**BK :** Black
**BU :** Blue
**RD :** Red
**AI :** Analogue input
**AO :** Analogue output
**DI :** Digital input
**DO :** Digital output