

# Product data sheet

Specifications



Controller, Modicon M171/172/173,  
optimized, flush mounting, 22 IO,  
Modbus

TM171OFM22R

## 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>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<br>24 V                                                                                                                                               |
| Width                     | 140 mm                                                                                                                                                          |
| Height                    | 110 mm                                                                                                                                                          |
| Depth                     | 61.6 mm                                                                                                                                                         |
| Net weight                | 0.385 kg                                                                                                                                                        |

Disclaimer: 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

# Environment

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

# Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 7.000 cm  |
| Package 1 Width              | 9.300 cm  |
| Package 1 Length             | 13.500 cm |
| Package 1 Weight             | 185.000 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             | 3.027 kg  |

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 >](#)

Use Better

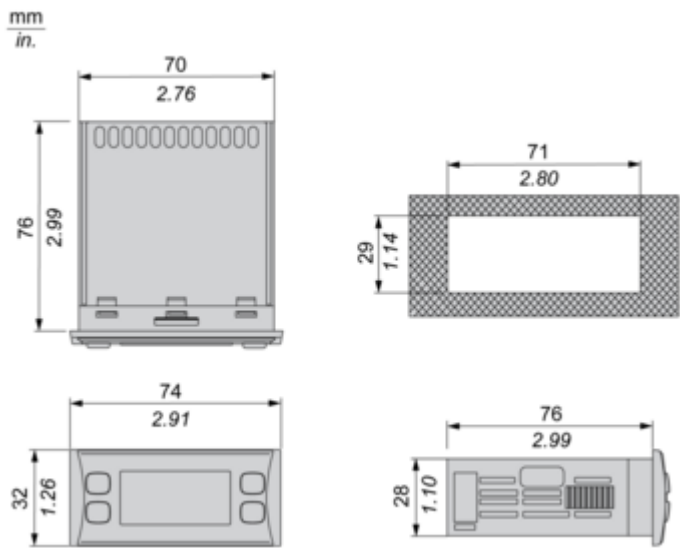
|  Materials and Substances |                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard                                                                     | Yes                                                                                                                                                                                                                                                                                         |
| Packaging without single use plastic                                                                       | Yes                                                                                                                                                                                                                                                                                         |
| <a href="#">EU RoHS Directive</a>                                                                          | Pro-active compliance (Product out of EU RoHS legal scope)                                                                                                                                                                                                                                  |
| REACH Regulation                                                                                           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                                                           |
| 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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

Use Again

|  Repack and remanufacture |                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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

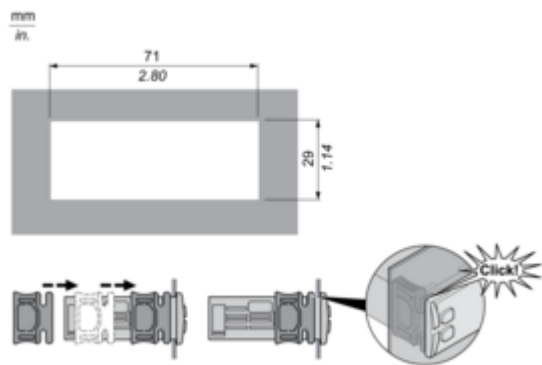
Dimensions



Mounting and Clearance

Mounting on Panel with the Special Brackets Provided

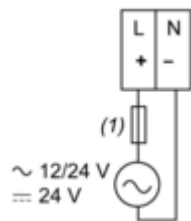
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Connections and Schema

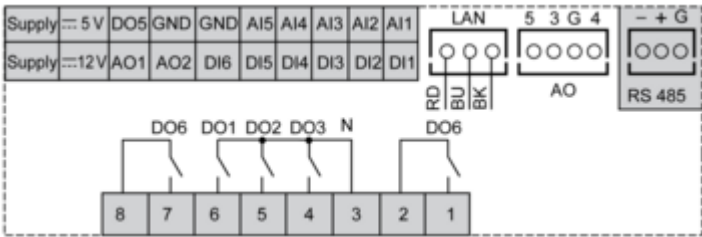
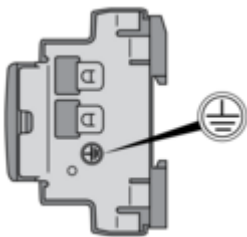
Power Supply

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(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