# Product datasheet

Specifications



## module TM3 - 16 inputs

TM3DI16

## Main

| | |
|---|---|
| **Range of product** | Modicon TM3 |
| **Product or component type** | Discrete input module |
| **Range compatibility** | Modicon M241<br>Modicon M251<br>Modicon M221<br>Modicon M262 |
| **Device application** | Industrial application |
| **Discrete input number** | 16 |
| **Discrete input voltage** | 24 V DC |
| **Discrete input logic** | Sink or source (positive/negative) |

## Complementary

| | |
|---|---|
| **Discrete input compatibility** | 16 conforming to IEC 61131-2 type 3 |
| **Discrete input current** | 7 mA |
| **Voltage state 1 guaranteed** | 15...28.8 V DC |
| **Voltage state 0 guaranteed** | 0...5 V DC |
| **Current state 1 guaranteed** | >= 2.5 mA |
| **Current state 0 guaranteed** | <= 1 mA |
| **Input impedance** | 3.4 kOhm |
| **Response time on input** | 4 ms (maximum (turn on))<br>4 ms (maximum (turn off)) |
| **Safety reliability data** | MTBF = 250 years 40 °C |
| **Sensor power supply** | 19.2…28.8 V |
| **Power supply type** | Electronic powered by internal bus |
| **Typical current consumption** | 34 mA at 5 V DC |
| **Electrical connection** | 10 x 1...2.5 mm² removable screw terminal block with pitch 3.81 mm adjustment for inputs |
| **Maximum cable distance between devices** | Unshielded cable: <50 m for regular input |
| **Isolation between channels and bus** | 500 V AC |
| **Local signalling** | 1 LED per channel (green) for input status |
| **Housing colour** | Grey |
| **AWG gauge** | 0.14…1.5 mm² / 26 AWG...16 AWG with solid cable |
| **Mounting support** | Top hat type TH35-15 rail conforming to IEC 60715<br>Top hat type TH35-7.5 rail conforming to IEC 60715<br>plate or panel with fixing kit |

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

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

| | |
|---|---|
| **Height** | 90 mm |
| **Width** | 27.4 mm |
| **Depth** | 84.6 mm |
| **Net weight** | 0.1 kg |

## Environment

| | |
|---|---|
| **IP degree of protection** | IP20 |
| **Protective treatment** | None |
| **Marking** | CE |
| **Product certifications** | CE<br>CULus<br>UKCA<br>RCM<br>EAC<br>CULus HazLoc |
| **Standards** | IEC 61131-2 |
| **Ambient air temperature for operation** | -10…35 °C (vertical installation)<br>-10…55 °C (horizontal installation) |
| **Ambient air temperature for storage** | -25…70 °C |
| **Relative humidity** | 10…95 % without condensation for operation<br>10…95 % without condensation for storage |
| **Operating altitude** | 0...2000 m |
| **Pollution degree** | 2 |
| **Vibration resistance** | 3.5 mm (f = 5…8.4 Hz) on DIN rail<br>3 gn (f = 8.4…150 Hz) on DIN rail<br>3.5 mm (f = 5…8.4 Hz) on panel mounting<br>3 gn (f = 8.4…150 Hz) on panel mounting |
| **Shock resistance** | 15 gn for 11 ms |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 7.345 cm |
| **Package 1 Width** | 10.498 cm |
| **Package 1 Length** | 12.471 cm |
| **Package 1 Weight** | 210.8 g |
| **Unit Type of Package 2** | S04 |
| **Number of Units in Package 2** | 42 |
| **Package 2 Height** | 30 cm |
| **Package 2 Width** | 40 cm |
| **Package 2 Length** | 60 cm |
| **Package 2 Weight** | 10.5 kg |
| **Unit Type of Package 3** | P12 |
| **Number of Units in Package 3** | 504 |
| **Package 3 Height** | 105 cm |
| **Package 3 Width** | 120 cm |

| | |
|---|---|
| **Package 3 Length** | 80 cm |
| **Package 3 Weight** | 132 kg |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## 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 | **20 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **13 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **6 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.5 kg CO2 eq.** |
| 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 | **Compliant** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |
| PVC free | **Yes** |

## Use Longer

### Lifetime extension

| | |
|---|---|
| Repair | **No** |

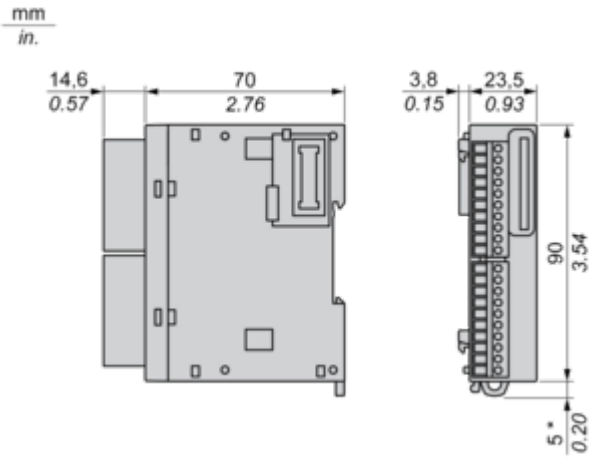
## Use Again

### Repack and remanufacture

| | |
|---|---|
| Recyclability potential, in % | **3** |
| 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

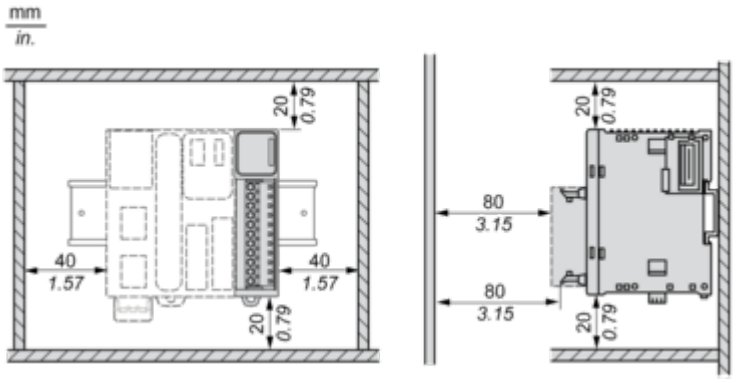
## Dimensions



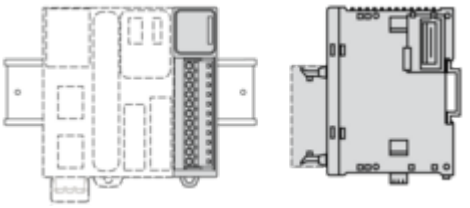

**(*)** 8.5 mm/0.33 in. when the clamp is pulled out.

Mounting and Clearance

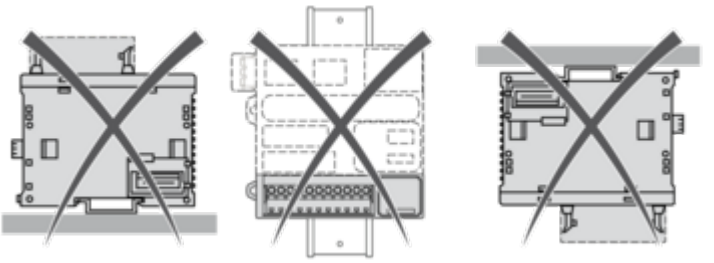
## Spacing Requirements



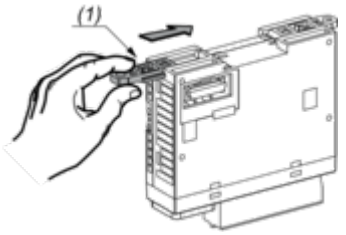
## Mounting on a Rail



## Incorrect Mounting

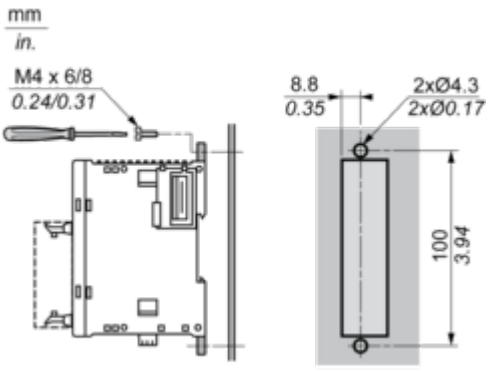


## Mounting on a Panel Surface




**(1)** Install a mounting strip

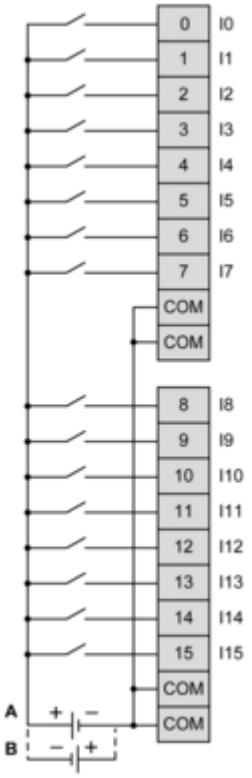
### Mounting Hole Layout



Connections and Schema

## Digital Input Module (16-channel, 24 Vdc)

### Wiring Diagrams




The 4 COM terminals are connected internally
**(A)** Sink wiring (positive logic)
**(B)** Source wiring (negative logic)