

# Product data sheet

Specifications



## discrete input module, Modicon TM3, 16 inputs, screw, 24V DC

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 |
| Discrete Input Number     | 16 input IEC 61131-2 type 3                                  |
| Discrete Input Logic      | Sink or source (positive/negative)                           |
| Discrete Input Voltage    | 24 V   |
| Discrete Input Current    | 7 mA input   |

### Complementary

|  |   |
|--|---|
| Discrete I/O Number                    | 16  |
| Current Consumption                    | 40 mA 5 V DC via bus connector at state on)<br>5 mA 5 V DC via bus connector at state off)<br>0 mA 24 V DC via bus connector at state on)<br>0 mA 24 V DC via bus connector at state off) |
| Discrete Input Voltage Type            | DC  |
| Voltage State 1 Guaranteed             | 15...28.8 V input   |
| Current State 1 Guaranteed             | >= 2.5 mA input)  |
| Voltage State 0 Guaranteed             | 0...5 V input   |
| Current State 0 Guaranteed             | <= 1 mA input)  |
| Input Impedance                        | 3.4 kOhm  |
| Response Time                          | 4 ms turn-on)<br>4 ms turn-off)   |
| Local Signalling                       | Input status 1 LED per channel green)   |
| Electrical Connection                  | 10 x 1.5 mm <sup>2</sup> removable screw terminal block pitch 3.81 mm for inputs  |
| Maximum Cable Distance Between Devices | Unshielded cable <164.04 ft (50 m) regular input  |
| Insulation                             | Between input and internal logic 500 V AC<br>Non-insulated between inputs   |
| Marking                                | CE  |
| Mounting Support                       | Top hat type TH35-15 rail IEC 60715<br>Top hat type TH35-7.5 rail IEC 60715<br>plate or panel with fixing kit   |
| Height                                 | 3.54 in (90 mm)   |
| Depth                                  | 3.33 in (84.6 mm)   |

|                   |                      |
|-------------------|----------------------|
| <b>Width</b>      | 1.08 in (27.4 mm)    |
| <b>Net Weight</b> | 0.22 lb(US) (0.1 kg) |

## Environment

|  |  |
|--|--|
| <b>Standards</b>                             | IEC 61131-2  |
| <b>Product Certifications</b>                | CE<br>cULus<br>UKCA<br>RCM<br>EAC<br>cULus HazLoc  |
| <b>Resistance To Electrostatic Discharge</b> | 8 kV in air IEC 61000-4-2<br>4 kV on contact IEC 61000-4-2   |
| <b>Resistance To Electromagnetic Fields</b>  | 9.14 V/yd (10 V/m) 80 MHz...1 GHz IEC 61000-4-3<br>2.74 V/yd (3 V/m) 1.4 GHz...2 GHz IEC 61000-4-3<br>0.91 V/yd (1 V/m) 2 GHz...3 GHz IEC 61000-4-3      |
| <b>Resistance To Magnetic Fields</b>         | 98.43 A/ft (30 A/m) 50/60 Hz IEC 61000-4-8   |
| <b>Resistance To Fast Transients</b>         | 1 kV I/O IEC 61000-4-4   |
| <b>Surge Withstand</b>                       | 1 kV I/O common mode IEC 61000-4-5 DC  |
| <b>Resistance To Conducted Disturbances</b>  | 10 V 0.15...80 MHz IEC 61000-4-6<br>3 V spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz) Marine specification (LR, ABS, DNV, GL)         |
| <b>Electromagnetic Emission</b>              | Radiated emissions 40 dB $\mu$ V/m QP class A 10 m)30...230 MHz IEC 55011<br>Radiated emissions 47 dB $\mu$ V/m QP class A 10 m)230...1000 MHz IEC 55011 |
| <b>Ambient Air Temperature For Operation</b> | 14...95 °F (-10...35 °C) vertical installation<br>14...131 °F (-10...55 °C) horizontal installation  |
| <b>Ambient Air Temperature For Storage</b>   | -13...158 °F (-25...70 °C)   |
| <b>Relative Humidity</b>                     | 10...95 %, without condensation in operation)<br>10...95 %, without condensation in storage)   |
| <b>Ip Degree Of Protection</b>               | IP20 with protective cover in place  |
| <b>Pollution Degree</b>                      | 2  |
| <b>Operating Altitude</b>                    | 0...2000 m   |
| <b>Storage Altitude</b>                      | 0.00...9842.52 ft (0...3000 m)   |
| <b>Vibration Resistance</b>                  | 3.5 mm 5...8.4 Hz DIN rail<br>3 gn 8.4...150 Hz DIN rail<br>3.5 mm 5...8.4 Hz panel<br>3 gn 8.4...150 Hz panel   |
| <b>Shock Resistance</b>                      | 15 gn 11 ms  |

## Packing Units

|                                     |                     |
|-------------------------------------|---------------------|
| <b>Unit Type Of Package 1</b>       | PCE                 |
| <b>Number Of Units In Package 1</b> | 1                   |
| <b>Package 1 Height</b>             | 2.89 in (7.345 cm)  |
| <b>Package 1 Width</b>              | 4.13 in (10.498 cm) |
| <b>Package 1 Length</b>             | 4.91 in (12.471 cm) |
| <b>Package 1 Weight</b>             | 7.44 oz (210.8 g)   |
| <b>Unit Type Of Package 2</b>       | S04                 |
| <b>Number Of Units In Package 2</b> | 42                  |
| <b>Package 2 Height</b>             | 11.81 in (30 cm)    |

|                                     |                        |
|-------------------------------------|------------------------|
| <b>Package 2 Width</b>              | 15.75 in (40 cm)       |
| <b>Package 2 Length</b>             | 23.62 in (60 cm)       |
| <b>Package 2 Weight</b>             | 23.15 lb(US) (10.5 kg) |
| <b>Unit Type Of Package 3</b>       | P12                    |
| <b>Number Of Units In Package 3</b> | 504                    |
| <b>Package 3 Height</b>             | 41.34 in (105 cm)      |
| <b>Package 3 Width</b>              | 47.24 in (120 cm)      |
| <b>Package 3 Length</b>             | 31.50 in (80 cm)       |
| <b>Package 3 Weight</b>             | 291.01 lb(US) (132 kg) |

## Sustainability

**Green Premium™ 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<sub>2</sub> 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 >](#)



Transparency RoHS/REACH

## Well-being performance

✓ Reach Free Of Svhc

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information [Yes](#)

✓ Pvc Free

## Certifications & Standards

**Reach Regulation**

[REACH Declaration](#)

**Eu Rohs Directive**

Pro-active compliance (Product out of EU RoHS legal scope)

[EU RoHS Declaration](#)

**China Rohs Regulation**

[China RoHS declaration](#)

**Environmental Disclosure**

[Product Environmental Profile](#)

**Weee**

The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

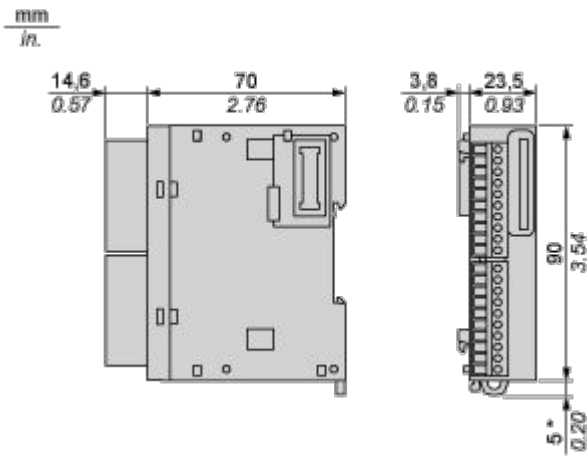
**Circularity Profile**

[End of Life Information](#)

Dimensions Drawings

Dimensions

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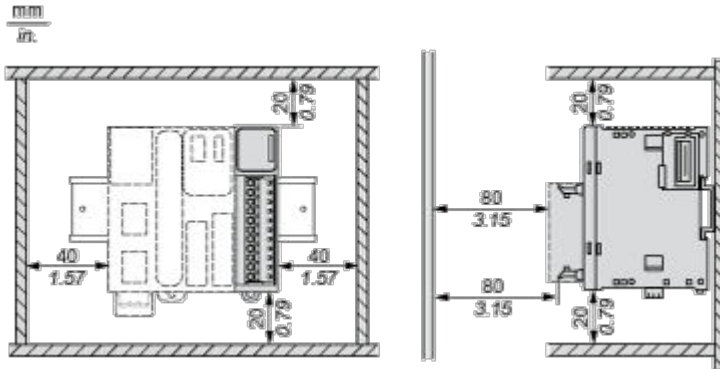


(\*) 8.5 mm/0.33 in. when the clamp is pulled out.

Mounting and Clearance

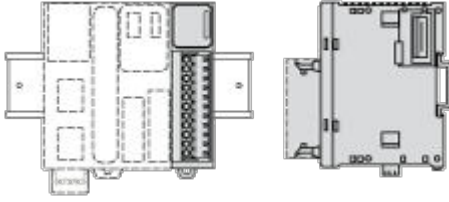
Spacing Requirements

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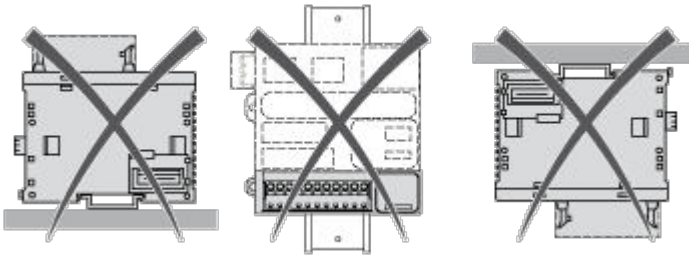


Mounting on a Rail

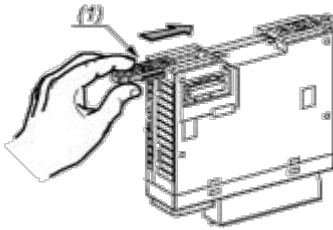
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**Incorrect Mounting**

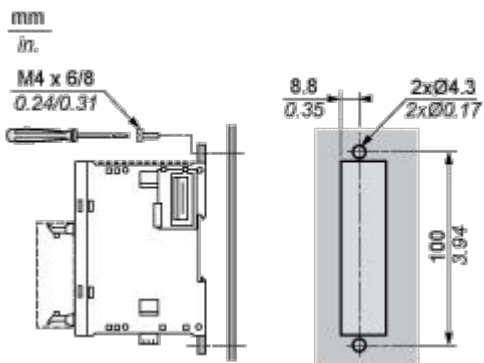


Mounting on a Panel Surface



- (1) Install a mounting strip

**Mounting Hole Layout**

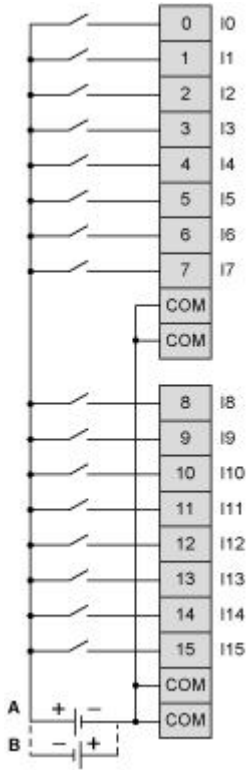


Connections and Schema

Digital Input Module (16-channel, 24 Vdc)

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Wiring Diagrams



The 4 COM terminals are connected internally

- (A) Sink wiring (positive logic)
- (B) Source wiring (negative logic)