# Product datasheet

Specifications

## discrete input module, Modicon TM3, 8 inputs, spring, 24V DC

TM3DI8G

## 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** | 8 for input conforming to IEC 61131-2 Type 1 |
| **Discrete Input Logic** | Sink or source (positive/negative) |
| **Discrete Input Voltage** | 24 V |
| **Discrete Input Current** | 7 mA for input |

## Complementary

| | |
|---|---|
| **Discrete I/O Number** | 8 |
| **Current Consumption** | 5 mA at 5 V DC via bus connector (at state off)<br>0 mA at 24 V DC via bus connector (at state on)<br>0 mA at 24 V DC via bus connector (at state off)<br>24 mA at 5 V DC via bus connector (at state on) |
| **Discrete Input Voltage Type** | DC |
| **Voltage State 1 Guaranteed** | 15...28.8 V for input |
| **Current State 1 Guaranteed** | >= 2.5 mA (input) |
| **Voltage State 0 Guaranteed** | 0...5 V for 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** | 1 LED per channel (green) for input status |
| **Electrical Connection** | 11 x 2.5 mm² removable spring terminal block with pitch 5.08 mm adjustment for inputs |
| **Maximum Cable Distance Between Devices** | Unshielded cable: <30 m for regular input |
| **Insulation** | Between input and internal logic at 500 V AC<br>Non-insulated between inputs |
| **Marking** | CE |
| **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 |
| **Height** | 90 mm |

| | |
|---|---|
| **Depth** | 84.6 mm |
| **Width** | 27.4 mm |
| **Net Weight** | 0.085 kg |

## Environment

| | |
|---|---|
| **Standards** | IEC 61131-2 |
| **Product Certifications** | cULus<br>CE<br>UKCA<br>RCM<br>EAC<br>cULus HazLoc |
| **Resistance To Electrostatic Discharge** | 8 kV in air conforming to IEC 61000-4-2<br>4 kV on contact conforming to IEC 61000-4-2 |
| **Resistance To Electromagnetic Fields** | 10 V/m 80 MHz...1 GHz conforming to IEC 61000-4-3<br>3 V/m 1.4 GHz...2 GHz conforming to IEC 61000-4-3<br>1 V/m 2 GHz...3 GHz conforming to IEC 61000-4-3 |
| **Resistance To Magnetic Fields** | 30 A/m 50/60 Hz conforming to IEC 61000-4-8 |
| **Resistance To Fast Transients** | 1 kV for I/O conforming to IEC 61000-4-4 |
| **Surge Withstand** | 1 kV I/O common mode conforming to IEC 61000-4-5 DC |
| **Resistance To Conducted Disturbances** | 10 V 0.15...80 MHz conforming to 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) conforming to Marine specification (LR, ABS, DNV, GL) |
| **Electromagnetic Emission** | Radiated emissions - test level: 40 dBµV/m QP class A ( 10 m) at 30…230 MHz conforming to IEC 55011<br>Radiated emissions - test level: 47 dBµV/m QP class A ( 10 m) at 230…1000 MHz conforming to IEC 55011 |
| **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 (in operation)<br>10…95 %, without condensation (in storage) |
| **Ip Degree Of Protection** | IP20 with protective cover in place |
| **Pollution Degree** | 2 |
| **Operating Altitude** | 0...2000 m |
| **Storage Altitude** | 0…3000 m |
| **Vibration Resistance** | 3.5 mm at 5…8.4 Hz on DIN rail<br>3 gn at 8.4…150 Hz on DIN rail<br>3.5 mm at 5…8.4 Hz on panel<br>3 gn at 8.4…150 Hz on panel |
| **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** | 7.5 cm |
| **Package 1 Width** | 10.5 cm |
| **Package 1 Length** | 12.5 cm |
| **Package 1 Weight** | 230 g |
| **Unit Type Of Package 2** | S02 |

| | |
|---|---|
| **Number Of Units In Package 2** | 9 |
| **Package 2 Height** | 15 cm |
| **Package 2 Width** | 30 cm |
| **Package 2 Length** | 40 cm |
| **Package 2 Weight** | 2.234 kg |
| **Unit Type Of Package 3** | S04 |
| **Number Of Units In Package 3** | 27 |
| **Package 3 Height** | 30 cm |
| **Package 3 Width** | 40 cm |
| **Package 3 Length** | 60 cm |
| **Package 3 Weight** | 5.183 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-$CO_2$ 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 >

Transparency

RoHS/REACh

## Well-being performance

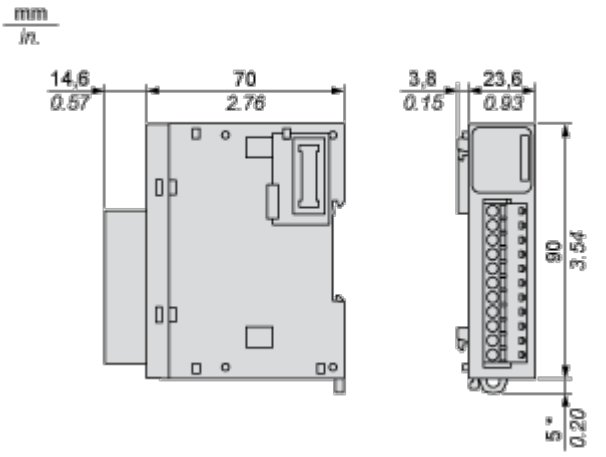
| | |
|---|---|
| Reach Free Of Svhc | |
| Toxic Heavy Metal Free | |
| Mercury Free | |
| Rohs Exemption Information | Yes |
| Pvc Free | |

## Certifications & Standards

| | |
|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Pro-active compliance (Product out of EU RoHS legal scope)<br>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

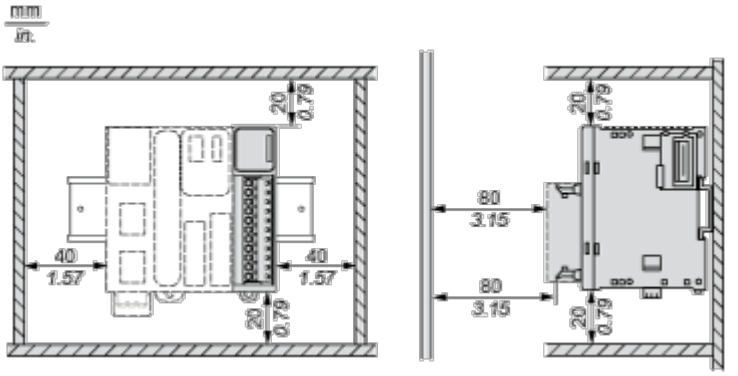
## Dimensions



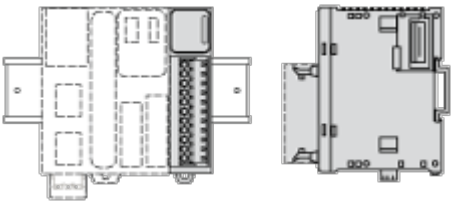

(*) 8.5 mm/0.33 in. when the clamp is pulled out.

Mounting and Clearance

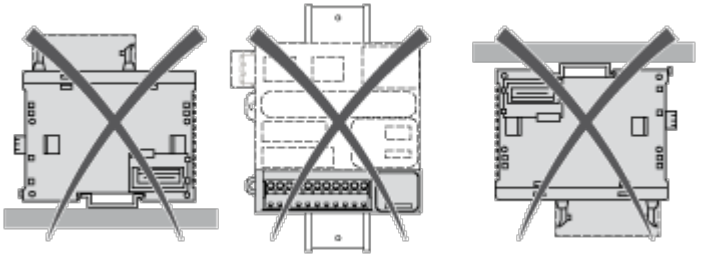
## Spacing Requirements



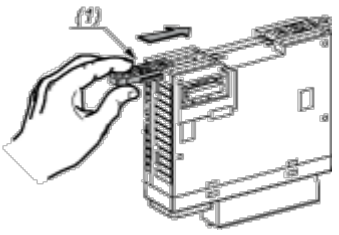
## Mounting on a Rail



## Incorrect Mounting

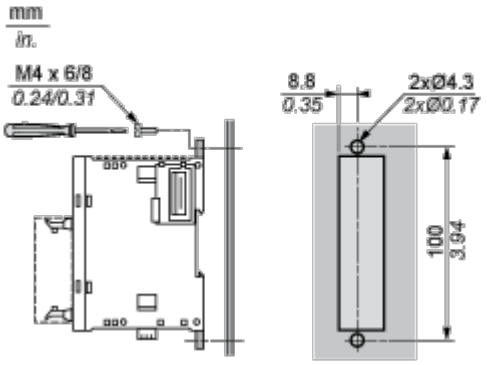


## Mounting on a Panel Surface




(1) Install a mounting strip

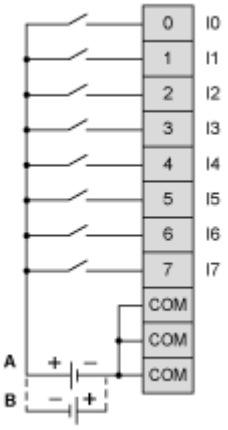
## Mounting Hole Layout



## Connections and Schema

### Digital Input Module (8-channel, 24 Vdc)

#### Wiring Diagram




The 3 COM terminals are connected internally.

(A) Sink wiring (positive logic)

(B) Souce wiring (negative logic)