

Product datasheet

Specifications



Modicon TM3 - 8 IO (4 inputs, 4 relay outputs, screw) 24Vdc

TM3DM8R

Main

| | |
|---------------------------|--|
| Range Of Product | Modicon TM3 |
| Product Or Component Type | Discrete I/O module |
| Range Compatibility | Modicon M241 Modicon M251 Modicon M221 Modicon M262 |
| Discrete Input Number | 4 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 |
| Discrete Output Type | Relay normally open |
| Discrete Output Number | 4 |
| Discrete Output Logic | Positive or negative |
| Discrete Output Voltage | 24 V DC for relay output 240 V AC for relay output |
| Discrete Output Current | 2000 mA for relay output |

Complementary

| | |
|-----------------------------------|---|
| Discrete I/O Number | 8 |
| Current Consumption | 5 mA at 5 V DC via bus connector (at state off) 0 mA at 24 V DC via bus connector (at state on) 0 mA at 24 V DC via bus connector (at state off) 25 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) 4 ms (turn-off) |
| Maximum Current Per Output Common | 7 A |
| Mechanical Durability | 20000000 cycles |
| Minimum Load | 10 mA at 5 V DC for relay output |
| Local Signalling | 1 LED per channel (green) for I/O state |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| | |
|---|---|
| Electrical Connection | 11 x 2.5 mm ² removable screw terminal block with pitch 5.08 mm adjustment for inputs and outputs |
| Maximum Cable Distance Between Devices | Unshielded cable: <30 m for regular input |
| Insulation | Between input and internal logic at 500 V AC Non-insulated between inputs Between input groups and output groups at 1500 V AC Between open contact at 750 V AC Between output and internal logic at 500 V AC Non-insulated between outputs |
| Marking | CE |
| Mounting Support | Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715 plate or panel with fixing kit |
| Height | 90 mm |
| Depth | 84.6 mm |
| Width | 27.4 mm |
| Net Weight | 0.95 kg |

Environment

| | |
|--|--|
| Standards | IEC 61131-2 |
| Product Certifications | cULus CE UKCA RCM EAC cULus HazLoc |
| Resistance To Electrostatic Discharge | 8 kV in air conforming to IEC 61000-4-2 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 3 V/m 1.4 GHz...2 GHz conforming to IEC 61000-4-3 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 2 kV for relay output conforming to IEC 61000-4-4 |
| Surge Withstand | 2 kV output common mode conforming to IEC 61000-4-5 1 kV input common mode conforming to IEC 61000-4-5 |
| Resistance To Conducted Disturbances | 10 V 0.15...80 MHz conforming to IEC 61000-4-6 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 dB μ V/m QP class A (10 m) at 30...230 MHz conforming to IEC 55011 Radiated emissions - test level: 47 dB μ V/m QP class A (10 m) at 230...1000 MHz conforming to IEC 55011 |
| Ambient Air Temperature For Operation | -10...35 °C vertical installation -10...55 °C horizontal installation |
| Ambient Air Temperature For Storage | -25...70 °C |
| Relative Humidity | 10...95 %, without condensation (in operation) 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 3 gn at 8.4...150 Hz on DIN rail 3.5 mm at 5...8.4 Hz on panel 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 | 12.5 cm |
|------------------------|---------|

| | |
|-------------------------|---------|
| Package 1 Length | 10.5 cm |
|-------------------------|---------|

| | |
|-------------------------|---------|
| Package 1 Weight | 230.0 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 | 10.643 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 | 138 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-CO₂ 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

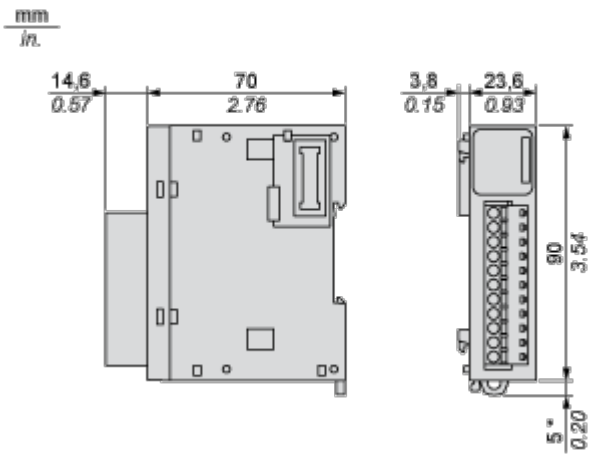
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile

[End of Life Information](#)

Dimensions Drawings

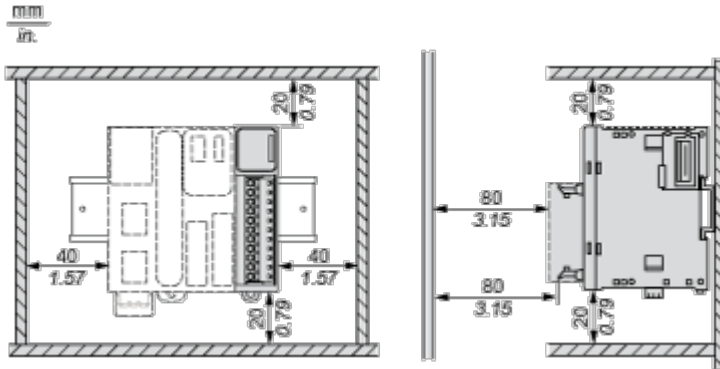
Dimensions



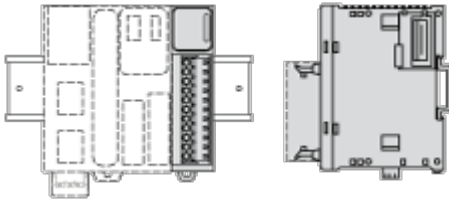
(*) 8.5 mm/0.33 in. when the clamp is pulled out.

Mounting and Clearance

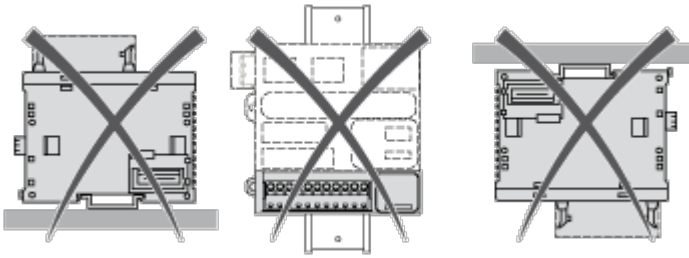
Spacing Requirements



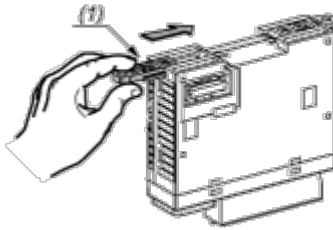
Mounting on a Rail



Incorrect Mounting

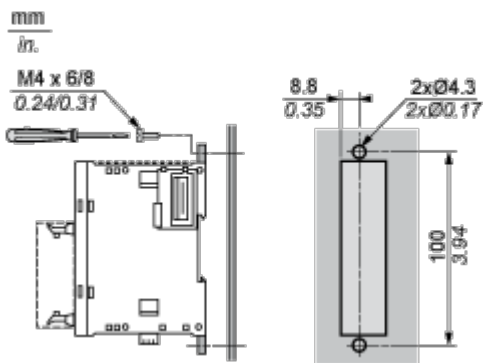


Mounting on a Panel Surface



- (1) Install a mounting strip

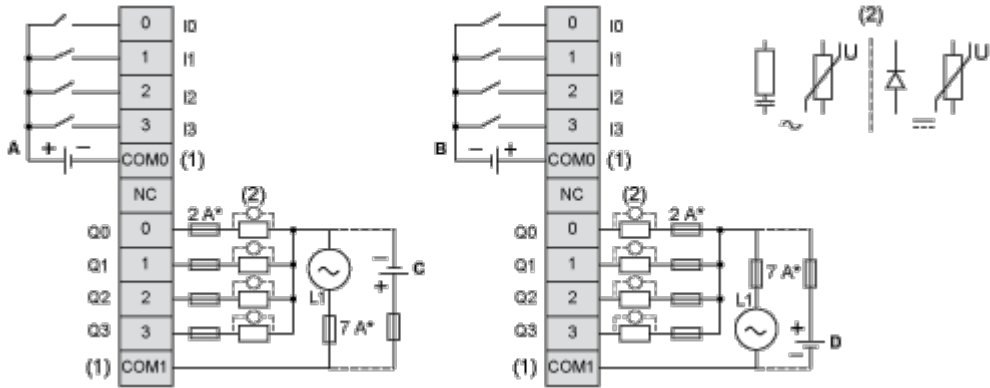
Mounting Hole Layout



Connections and Schema

Digital Mixed I/O Module (8-channel)

Wiring Diagram (Sink / Source)



(*) Type T fuse

(1) The COM0 and COM1 terminals are **not** connected internally.

(2) To improve the life time of the contacts, and to protect from potential inductive load damage, it is recommended to connect a free wheeling diode in parallel to each inductive DC load or an RC snubber in parallel of each inductive AC load.

(A) Sink wiring (positive logic)

(B) Source wiring (negative logic)

(C) Source wiring (positive logic)

(D) Sink wiring (negative logic)