



### Main

|                           |                                              |
|---------------------------|----------------------------------------------|
| Range of product          | Modicon TM3                                  |
| Product or component type | Discrete output module                       |
| Range compatibility       | Modicon M221<br>Modicon M241<br>Modicon M251 |
| Discrete output type      | Transistor                                   |
| Discrete output number    | 16                                           |
| Discrete output logic     | Positive logic (source)                      |
| Discrete output voltage   | 24 V DC for transistor output                |
| Discrete output current   | 500 mA for transistor output                 |

### Complementary

|                       |                                                                                                                                                                                                    |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Discrete I/O number   | 16                                                                                                                                                                                                 |
| 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 off<br>15 mA at 5 V DC via bus connector at state on<br>20 mA at 24 V DC via bus connector at state on |
| Response time         | 450 µs for turn-on<br>450 µs for turn-off                                                                                                                                                          |
| Leakage current       | 0.1 mA for transistor output                                                                                                                                                                       |
| Voltage drop          | 0.4 V                                                                                                                                                                                              |
| Tungsten load         | 3 W for transistor output                                                                                                                                                                          |
| Local signalling      | Green for output status                                                                                                                                                                            |
| Electrical connection | Removable screw terminal block pitch 3.81 mm with 10 terminal(s) of 1.5 mm <sup>2</sup><br>connection capacity for outputs                                                                         |
| Cable length          | <= 30 m unshielded cable for transistor output                                                                                                                                                     |
| Insulation            | Non-insulated between outputs<br>AC between output and internal logic                                                                                                                              |
| 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                                                                                                                                                                                            |
| Product weight        | 0.11 kg                                                                                                                                                                                            |

### Environment

|                                                        |                                                                                                                                                                             |
|--------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| standards                                              | EN/IEC 61131-2<br>EN/IEC 61010-2-201                                                                                                                                        |
| product certifications                                 | C-Tick<br>CULus                                                                                                                                                             |
| resistance to electrostatic discharge                  | 4 kV (on contact) conforming to EN/IEC 61000-4-2<br>8 kV (in air) conforming to EN/IEC 61000-4-2                                                                            |
| resistance to electromagnetic fields                   | 10 V/m at 80 MHz...1 GHz conforming to EN/IEC 61000-4-3<br>3 V/m at 1.4 GHz...2 GHz conforming to EN/IEC 61000-4-3<br>1 V/m at 2 GHz...3 GHz conforming to EN/IEC 61000-4-3 |
| resistance to magnetic fields                          | 30 A/m at 50...60 Hz conforming to EN/IEC 61000-4-8                                                                                                                         |
| resistance to fast transients                          | 1 kV for I/O conforming to EN/IEC 61000-4-4                                                                                                                                 |
| surge withstand                                        | 1 kV for I/O (DC) in common mode conforming to EN/IEC 61000-4-5                                                                                                             |
| resistance to conducted disturbances, induced by radio | 10 Vrms at 0.15...80 MHz conforming to EN/IEC 61000-4-6                                                                                                                     |

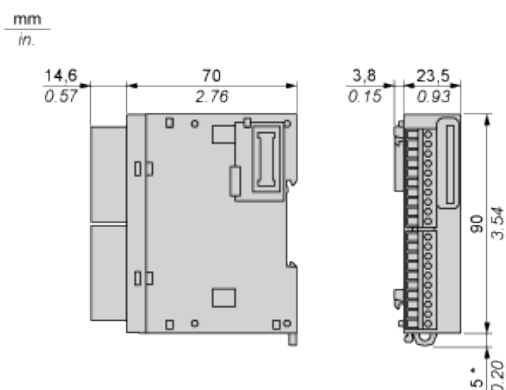
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|                                       |                                                                                                                                                                                                                                                                                                               |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| frequency fields                      | 3 Vrms at 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 $\mu$ V/m QP with class A, condition of test: 10 m (radio frequency: 30...230 MHz) conforming to EN/IEC 55011<br>Radiated emissions, test level: 47 dB $\mu$ V/m QP with class A, condition of test: 10 m (radio frequency: 230 MHz...1 GHz) conforming to EN/IEC 55011 |
| ambient air temperature for operation | -10...55 °C for horizontal installation<br>-10...35 °C for vertical 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 (vibration frequency: 5...8.4 Hz) on DIN rail<br>3 gn (vibration frequency: 8.4...150 Hz) on DIN rail<br>3.5 mm (vibration frequency: 5...8.4 Hz) on panel<br>3 gn (vibration frequency: 8.4...150 Hz) on panel                                                                                        |
| shock resistance                      | 15 gn (test wave duration: 11 ms)                                                                                                                                                                                                                                                                             |

## Offer Sustainability

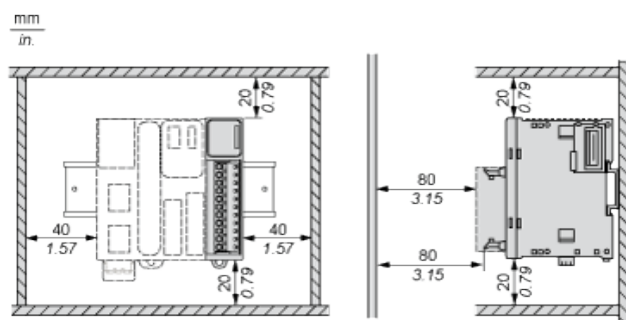
|                                  |                                                                       |
|----------------------------------|-----------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                 |
| RoHS (date code: YYWW)           | Compliant - since 1348 - Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold                     |
| Product environmental profile    | Available                                                             |
| Product end of life instructions | Available                                                             |

## Dimensions

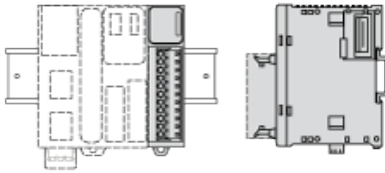


(\*) 8.5 mm/0.33 in. when the clamp is pulled out.

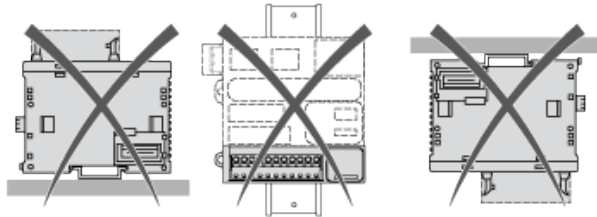
## Spacing Requirements



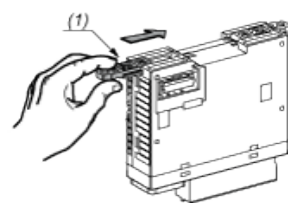
## Mounting on a Rail



Incorrect Mounting

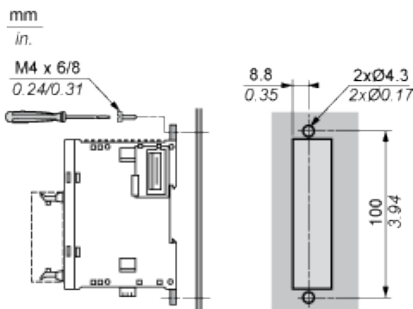


### Mounting on a Panel Surface



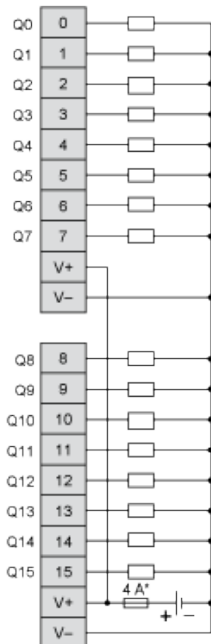
(1) Install a mounting strip

### Mounting Hole Layout



### Digital Transistor Output Module (16-Channel, Source)

#### Wiring Diagram



(\*) Type T fuse

