



Main

| | |
|---------------------------|---|
| Range of product | Modicon TM3 |
| Product or component type | Discrete output module |
| Range compatibility | Modicon M221 Modicon M241 Modicon M251 |
| Discrete output type | Relay normally open |
| Discrete output number | 16 |
| Discrete output logic | Positive logic (source) |
| Discrete output voltage | 30 V DC for relay output 240 V AC for relay output |
| Discrete output current | 2000 mA for relay output |

Complementary

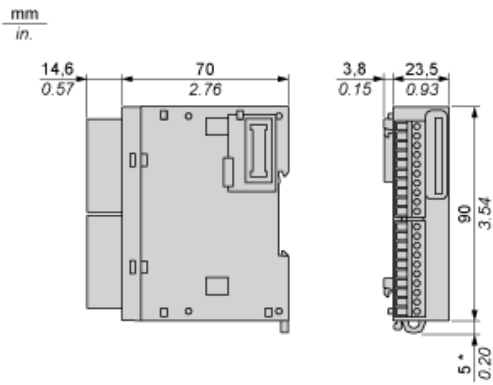
| | |
|-----------------------|---|
| Discrete I/O number | 16 |
| Current consumption | 75 mA at 24 V DC via bus connector at state on 0 mA at 24 V DC via bus connector at state off |
| Response time | 5 ms for turn-off 10 ms for turn-on |
| Mechanical durability | 20000000 cycles |
| Minimum load | 10 mA at 5 V DC for relay output |
| Local signalling | 1 LED per channel green for output status |
| Electrical connection | Removable spring terminal block pitch 3.81 mm with 10 terminal(s) of 1.5 mm ² connection capacity for outputs |
| Cable length | <= 30 m unshielded cable cable for relay output |
| Insulation | 1500 V AC between output groups 750 V AC between outputs 2300 V AC between output and internal logic |
| Marking | CE |
| Mounting support | Plate or panel with fixing kit Top hat type TH35-7.5 rail conforming to IEC 60715 Top hat type TH35-15 rail conforming to IEC 60715 |
| Height | 70 mm |
| Depth | 84.6 mm |
| Width | 27.3 mm |
| Product weight | 0.145 kg |

Environment

| | |
|---------------------------------------|--|
| Standards | EN/IEC 61131-2 EN/IEC 61010-2-201 |
| Product certifications | C-Tick CULus |
| Resistance to electrostatic discharge | On contact - EN/IEC 61000-4-2 In air - EN/IEC 61000-4-2 |
| Resistance to electromagnetic fields | 1 V/m (2 GHz...3 GHz) - EN/IEC 61000-4-3 3 V/m (1.4 GHz...2 GHz) - EN/IEC 61000-4-3 10 V/m (80 MHz...1 GHz) - EN/IEC 61000-4-3 |
| Resistance to magnetic fields | 30 A/m (50...60 Hz) - EN/IEC 61000-4-8 |
| Resistance to fast transients | 2 kV for relay output - EN/IEC 61000-4-4 |
| Surge withstand | 1 kV for I/O (DC) in common mode - EN/IEC 61000-4-5 |

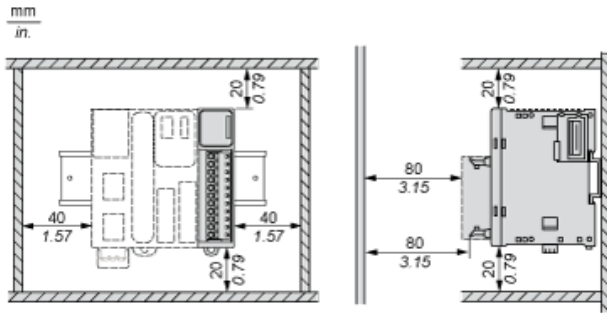
| | |
|---|--|
| Resistance to conducted disturbances, induced by radio frequency fields | 3 Vrms (spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz)) - Marine specification (LR, ABS, DNV, GL) 10 Vrms (0.15...80 MHz) - EN/IEC 61000-4-6 |
| Electromagnetic emission | Radiated emissions - EN/IEC 55011 class A 10 m, 230 MHz...1 GHz : 47 dB μ V/m QP Radiated emissions - EN/IEC 55011 class A 10 m, 30...230 MHz : 40 dB μ V/m QP |
| Ambient air temperature for operation | -10...55 °C for horizontal installation -10...35 °C for vertical installation |
| Ambient air temperature for storage | -25...70 °C |
| Relative humidity | 10...95 % without condensation in storage 10...95 % without condensation in operation |
| 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 gn (vibration frequency: 8.4...150 Hz) on panel 3.5 mm (vibration frequency: 5...8.4 Hz) on panel 3 gn (vibration frequency: 8.4...150 Hz) on DIN rail 3.5 mm (vibration frequency: 5...8.4 Hz) on DIN rail |
| Shock resistance | 15 gn (test wave duration:11 ms) |

Dimensions

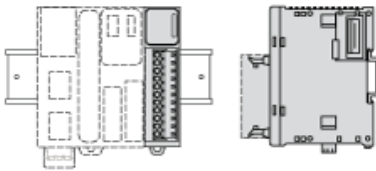


(*) 8.5 mm/0.33 in. when the clamp is pulled out.

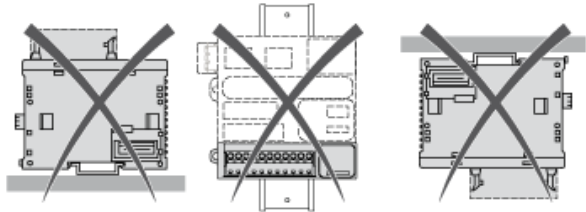
Spacing Requirements



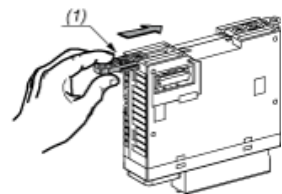
Mounting on a Rail



Incorrect Mounting

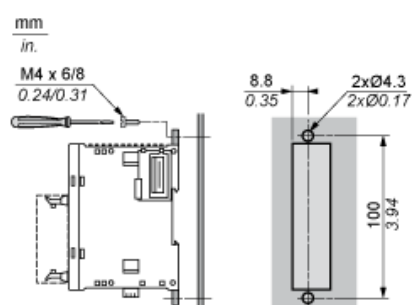


Mounting on a Panel Surface



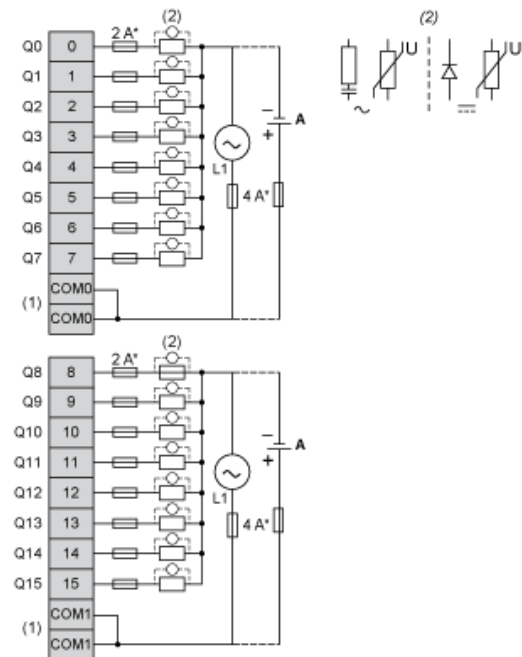
(1) Install a mounting strip

Mounting Hole Layout



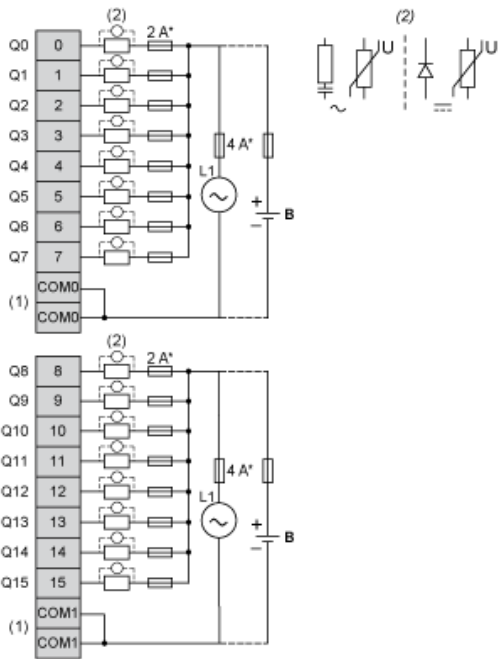
Digital Relay Output Module (16-channel)

Wiring Diagram (Positive Logic)



- (*) 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) Source wiring (positive logic).

Wiring Diagram (Negative Logic)



- (*) 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.
- (B) Sink wiring (negative logic)