# *Product datasheet*
*Characteristics*

# TM3DQ32UK
module TM3 - 32 outputs transistor NPN HE10

## 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 | 32 |
| Discrete output logic | Negative logic (sink) |
| Discrete output voltage | 24 V DC for transistor output |
| Discrete output current | 100 mA for transistor output |

## Complementary

| | |
|---|---|
| Discrete I/O number | 32 |
| 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>25 mA at 5 V DC via bus connector at state on<br>40 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 | 1.2 W for transistor output |
| Local signalling | 1 LED per channel green for output status |
| Electrical connection | HE-10 connector for outputs |
| Cable distance between devices | Unshielded cable: 5 m for transistor output |
| Insulation | 500 V AC between output and internal logic<br>Non-insulated between outputs |
| 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 | 81.3 mm |
| Width | 33.5 mm |
| Product weight | 0.112 kg |

## Environment

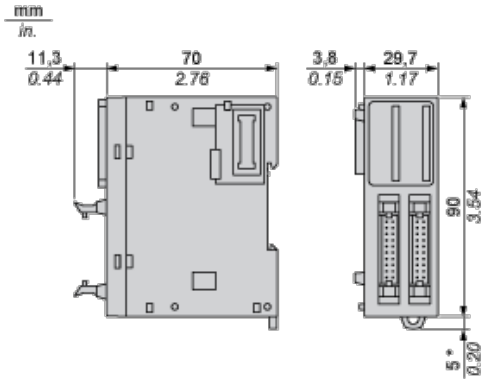
| | |
|---|---|
| standards | EN/IEC 61131-2<br>EN/IEC 61010-2-201 |
| product certifications | C-Tick<br>CULus |
| resistance to electrostatic discharge | 4 kV (on contact) conforming to EN/IEC 61000-4-2<br>8 kV (in air) conforming to EN/IEC 61000-4-2 |
| resistance to electromagnetic fields | 10 V/m 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 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 | 10 Vrms at 0.15...80 MHz conforming to EN/IEC 61000-4-6 |

| | |
|---|---|
| | 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 dBµV/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 dBµV/m QP with class A, condition of test: 10 m (radio frequency: 230...1000 MHz) 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

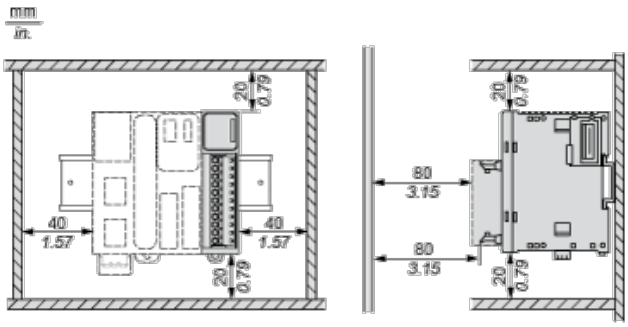
| | |
|---|---|
| Sustainable offer status | Green Premium product |
| RoHS (date code: YYWW) | Compliant - since 1348 - Schneider Electric declaration of conformity |
| REACh | Reference not containing SVHC above the threshold |
| Product environmental profile | Available |
| Product end of life instructions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

## Dimensions

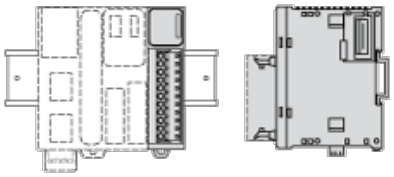



**(*)** 8.5 mm/0.33 in. when the clamp is pulled out.

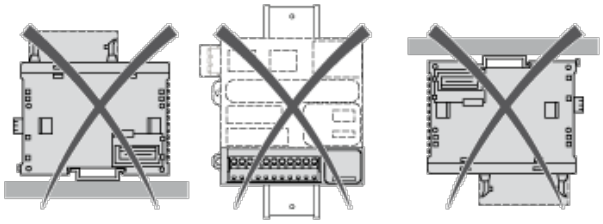
## Spacing Requirements



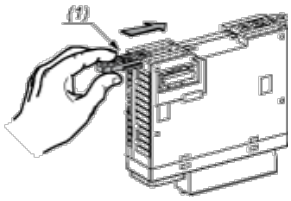

## Mounting on a Rail



### Incorrect Mounting

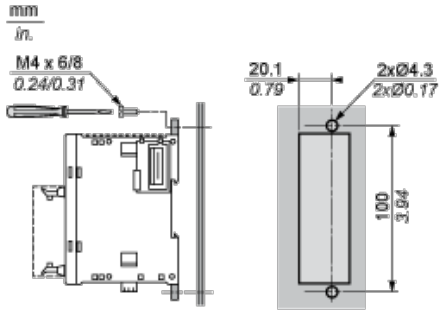


## Mounting on a Panel Surface



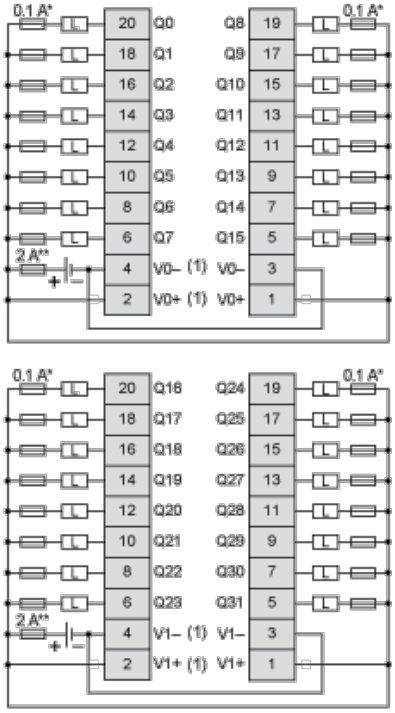

**(1)** Install a mounting strip

### Mounting Hole Layout




## Digital Transistor Output Module (32-channel, Sink)

### Wiring Diagram




**(*)** Type T Fuse

**(**)** Type F Fuse

**(1)** The V0+ terminals are connected internally.

The V0- terminals are connected internally.

The V1+ terminals are connected internally.

The V1- terminals are connected internally.

The V0+ and V1+ terminals are not connected internally.

The V0- and V1- terminals are not connected internally.