



### 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      | 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 <sup>2</sup> connection capacity for outputs   |
| Cable length          | <= 30 m unshielded cable cable 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                | 70 mm  |
| Depth                 | 84.6 mm  |
| Width                 | 27.3 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                                   | In air - EN/IEC 61000-4-2<br>On contact - EN/IEC 61000-4-2  |
| Resistance to electromagnetic fields                                    | 10 V/m (80 MHz...1 GHz) - EN/IEC 61000-4-3<br>3 V/m (1.4 GHz...2 GHz) - EN/IEC 61000-4-3<br>1 V/m (2 GHz...3 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   | 1 kV for I/O - 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 | 10 Vrms (0.15...80 MHz) - EN/IEC 61000-4-6<br>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) |

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|                                       |  |
|---------------------------------------|--|
| Electromagnetic emission              | Radiated emissions - EN/IEC 55011 class A 10 m, 230 MHz...1 GHz : 47 dB $\mu$ V/m QP<br>Radiated emissions - EN/IEC 55011 class A 10 m, 30...230 MHz : 40 dB $\mu$ V/m QP  |
| 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)   |