



### Main

|                           |                                                                                                                                                                               |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product          | Modicon TM3                                                                                                                                                                   |
| Product or component type | Analog input module                                                                                                                                                           |
| Range compatibility       | Modicon M221<br>Modicon M251<br>Modicon M241                                                                                                                                  |
| Analogue input number     | 8                                                                                                                                                                             |
| Analogue input type       | Current, analogue input range: 4...20 mA<br>Current, analogue input range: 0...20 mA<br>Voltage, analogue input range: 0...10 V<br>Voltage, analogue input range: - 10...10 V |

### Complementary

|                                 |                                                                                                                                                                                       |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analogue input resolution       | 11 bits + sign<br>12 bits                                                                                                                                                             |
| Permissible continuous overload | 13 V voltage<br>40 mA current                                                                                                                                                         |
| Input impedance                 | <= 50 Ohm current<br>>= 1 MOhm voltage                                                                                                                                                |
| LSB value                       | 2.44 mV, analogue input: 0...10 V voltage<br>4.88 mV, analogue input: - 10...10 V voltage<br>4.88 µA, analogue input: 0...20 mA current<br>3.91 µA, analogue input: 4...20 mA current |
| Conversion time                 | 1 ms + 1 ms per channel + 1 controller cycle time                                                                                                                                     |
| Sampling duration               | <= 1 ms                                                                                                                                                                               |
| Absolute accuracy error         | +/- 1 % of full scale<br>+/- 0.2 % of full scale at 25 °C                                                                                                                             |
| Temperature drift               | +/- 0.01 %FS/°C                                                                                                                                                                       |
| Repeat accuracy                 | +/-0.5 %FS                                                                                                                                                                            |
| Non-linearity                   | +/- 0.2 %FS                                                                                                                                                                           |
| Cross talk                      | <= 1 LSB                                                                                                                                                                              |
| [Us] rated supply voltage       | 24 V DC                                                                                                                                                                               |
| Supply voltage limits           | 20.4...28.8 V                                                                                                                                                                         |

|                       |                                                                                                                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type of cable         | <= 30 m twisted shielded pairs cable for input circuit                                                                                                                                                                                                    |
| Current consumption   | 40 mA at 5 V DC (full load) via bus connector<br>35 mA at 5 V DC (no load) via bus connector<br>30 mA at 24 V DC (no load) via external supply<br>40 mA at 24 V DC (full load) via external supply                                                        |
| Local signalling      | 1 LED green for PWR                                                                                                                                                                                                                                       |
| Electrical connection | 10 x 1.5 mm <sup>2</sup> removable screw terminal block with pitch 3.81 mm adjustment for inputs and supply<br>10 x 1.5 mm <sup>2</sup> removable screw terminal block with pitch 3.81 mm adjustment for inputs                                           |
| Insulation            | 500 V AC between input and internal logic<br>1500 V AC between input and supply                                                                                                                                                                           |
| Marking               | CE                                                                                                                                                                                                                                                        |
| Surge withstand       | 1 kV for power supply with common mode protection conforming to EN/IEC 61000-4-5<br>0.5 kV for power supply with differential mode protection conforming to EN/IEC 61000-4-5<br>1 kV for input with common mode protection conforming to EN/IEC 61000-4-5 |
| 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                 | 70 mm                                                                                                                                                                                                                                                     |
| Width                 | 23.6 mm                                                                                                                                                                                                                                                   |
| Product weight        | 0.11 kg                                                                                                                                                                                                                                                   |

## Environment

|                                                                         |                                                                                                                                                                                                                     |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                                               | EN/IEC 61131-2<br>EN/IEC 61010-2-201                                                                                                                                                                                |
| 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 I/O conforming to EN/IEC 61000-4-4                                                                                                                                                                             |
| Resistance to conducted disturbances, induced by radio frequency fields | 10 V at 0.15...80 MHz conforming to EN/IEC 61000-4-6<br>3 V 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 class A (10 m at 30...230 MHz) conforming to EN/IEC 55011<br>Radiated emissions, test level: 47 dBμV/m QP class A (10 m at 230 MHz...1 GHz) conforming to EN/IEC 55011 |
| Immunity to microbreaks                                                 | 10 ms                                                                                                                                                                                                               |
| Ambient air temperature for operation                                   | -10...55 °C (horizontal installation)<br>-10...35 °C (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                                                                                                                                                                                                                |
| Pollution degree                                                        | 2                                                                                                                                                                                                                   |
| Operating altitude                                                      | 0...2000 m                                                                                                                                                                                                          |
| Storage altitude                                                        | 0...3000 m                                                                                                                                                                                                          |
| Vibration resistance                                                    | 3.5 mm at 5...8.4 Hz with DIN rail mounting support<br>3 gn at 8.4...150 Hz with DIN rail mounting support                                                                                                          |
| Shock resistance                                                        | 15 gn during 11 ms                                                                                                                                                                                                  |

## Offer Sustainability

|                          |                                                                                                                                                                                                                           |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status | Green Premium product                                                                                                                                                                                                     |
| RoHS (date code: YYWW)   | Compliant - since 1415 - Schneider Electric declaration of conformity<br> <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                    | Reference not containing SVHC above the threshold                                                                                                                                                                         |

Reference not containing SVHC above the threshold

Product environmental profile

Available

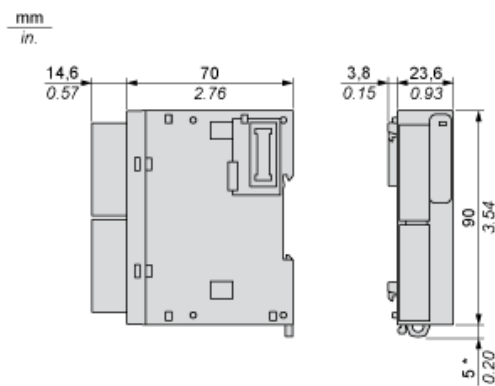
 [Product environmental](#)

Product end of life instructions

Available

 [End of life manual](#)

Dimensions

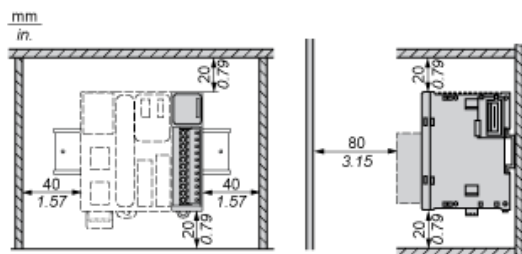


(\*) 8.5 mm/0.33 in when the clamp is pulled out.

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Spacing Requirements

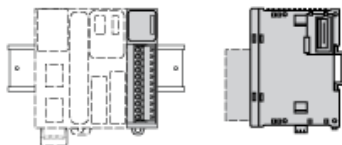
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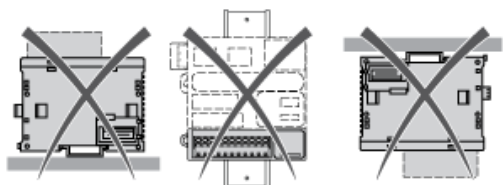
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Mounting on a Rail

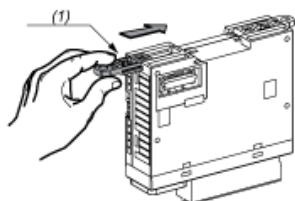
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Incorrect Mounting

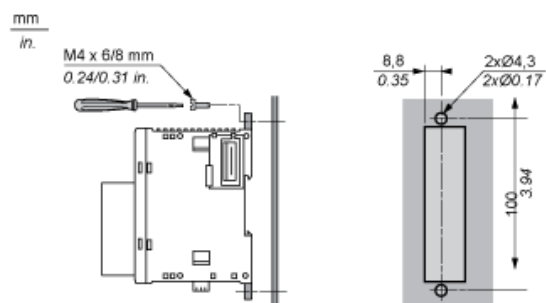


## Mounting on a Panel Surface



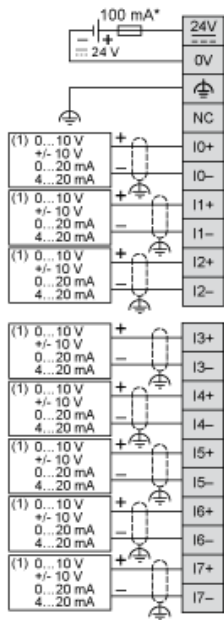
- (1) Install a mounting strip

## Mounting Hole Layout



Analogue Input Module

Wiring Diagram (Current / Voltage)



- (\*) Type T fuse  
(1) Current/Voltage analog output device