# **Product data sheet**

Specification





# IO analog module, Modicon TM3, 4 inputs, 2 output, screw, 24V DC

ТМЗАМ6

Product availability: Stock - Normally stocked in distribution facility

Price\*: 285.00 USD

# Main

| Range Of Product          | Modicon TM3                   |
|---------------------------|-------------------------------|
| Product Or Component Type | Input/output analog module    |
| Range Compatibility       | Modicon M221                  |
|                           | Modicon M241                  |
|                           | Modicon M251                  |
|                           | Modicon M262                  |
| Analogue Input Number     | 4                             |
| Analogue Input Type       | current 420 mA                |
|                           | current 020 mA                |
|                           | voltage 010 V                 |
|                           | voltage - 1010 V              |
| Analogue Output Number    | 2                             |
| Analogue Output Type      | Current 420 mA Current 020 mA |
|                           |                               |
|                           | Voltage 010 V                 |
|                           | Voltage - 1010 V              |

# Complementary

| Analogue Input Resolution       | 12 bits<br>11 bits + sign   |
|---------------------------------|---|
| Permissible Continuous Overload | 13 V voltage<br>40 mA current   |
| Input Impedance                 | <= 50 Ohm current<br>>= 1 MOhm voltage  |
| Analogue Output Resolution      | 12 bits<br>11 bits + sign   |
| Lsb Value                       | 2.44 mV 010 V voltage<br>4.88 mV - 1010 V voltage<br>4.88 μA 020 mA current<br>3.91 μA 420 mA current |
| Load Type                       | Resistive   |
| Load Impedance Ohmic            | 1 kOhm voltage<br>300 Ohm current   |
| Stabilisation Time              | 1 ms  |
| Conversion Time                 | 1 ms + 1 ms per channel + 1 controller cycle time   |
| Sampling Duration               | 1 ms<br>10 ms   |
| Absolute Accuracy Error         | +/- 1 % of full scale<br>+/- 0.2 % of full scale at 77 °F (25 °C)                                     |
| Temperature Drift               | +/- 0.01 %FS/°C   |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| Repeat Accuracy           | +/-0.5 %FS input  |
|---------------------------|---|
|                           | +/-0.5 %FS output   |
| Non-Linearity             | +/- 0.2 %FS   |
| Output Ripple             | 20 mV   |
| Cross Talk                | <= 1 LSB  |
| [Us] Rated Supply Voltage | 24 V DC   |
| Supply Voltage Limits     | 20.428.8 V  |
| Type Of Cable             | Twisted shielded pairs cable <98.43 ft (30 m) input/output  |
| Current Consumption       | 45 mA 5 V DC via bus connector no load<br>55 mA 5 V DC via bus connector full load<br>55 mA 24 V DC via external supply no load<br>100 mA 24 V DC via external supply full load |
| Local Signalling          | for PWR 1 LED (green)   |
| Electrical Connection     | 10 x 1.5 mm² removable screw terminal block pitch 3.81 mm for inputs 10 x 1.5 mm² removable screw terminal block pitch 3.81 mm for inputs, outputs and supply                   |
| Insulation                | Between input and supply 1500 V AC Between input and internal logic 500 V AC Between output and supply 1500 V AC Between output and internal logic 500 V AC                     |
| Marking                   | CE  |
| Surge Withstand           | 1 kV power supply common mode IEC 61000-4-5 0.5 kV power supply differential mode IEC 61000-4-5 1 kV I/O common mode IEC 61000-4-5 0.5 kV I/O differential mode IEC 61000-4-5   |
| Mounting Support          | Top hat type TH35-15 rail IEC 60715 Top hat type TH35-7.5 rail IEC 60715 plate or panel with fixing kit   |
| Height                    | 3.54 in (90 mm)   |
| Depth                     | 2.76 in (70 mm)   |
| Width                     | 0.93 in (23.6 mm)   |
| Net Weight                | 0.24 lb(US) (0.11 kg)   |

# **Environment**

| Standards                     | IEC 61131-2  |
|-------------------------------|--|
| Product Certifications        | CE   |
|                               | UKCA   |
|                               | RCM  |
|                               | EAC  |
|                               | cULus  |
|                               | cULus HazLoc   |
| Resistance To Electrostatic   | 8 kV in air IEC 61000-4-2  |
| Discharge                     | 4 kV on contact IEC 61000-4-2  |
| Resistance To Electromagnetic | 9.14 V/m (10 V/m) 80 MHz1 GHz IEC 61000-4-3  |
| Fields                        | 2.74 V/m (3 V/m) 1.4 GHz2 GHz IEC 61000-4-3  |
|                               | 0.91 V/m (1 V/m) 2 GHz3 GHz IEC 61000-4-3  |
| Resistance To Magnetic Fields | 98.43 A/m (30 A/m) IEC 61000-4-8   |
| Resistance To Fast Transients | 1 kV IEC 61000-4-4 I/O)  |
| Resistance To Conducted       | 10 V 0.1580 MHz IEC 61000-4-6  |
| Disturbances                  | 3 V spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz) Marine specification (LR, ABS, DNV, GL)                           |
| Electromagnetic Emission      | Radiated emissions 40 dBµV/m QP class A 10 m)30230 MHz IEC 55011<br>Radiated emissions 47 dBµV/m QP class A 10 m)2301000 MHz IEC 55011 |

| Immunity To Microbreaks                  | 10 ms   |
|--|---|
| Ambient Air Temperature For<br>Operation | 14131 °F (-1055 °C) horizontal installation<br>1495 °F (-1035 °C) vertical installation |
| Ambient Air Temperature For Storage      | -13158 °F (-2570 °C)  |
| Relative Humidity                        | 1095 %, without condensation in operation) 1095 %, without condensation in storage)     |
| Ip Degree Of Protection                  | IP20  |
| Pollution Degree                         | 2   |
| Operating Altitude                       | 06561.68 ft (02000 m)   |
| Storage Altitude                         | 0.009842.52 ft (03000 m)  |
| Vibration Resistance                     | 3.5 mm 58.4 Hz DIN rail<br>3 gn 8.4150 Hz DIN rail                                      |
| Shock Resistance                         | 15 an 11 ms   |

# Ordering and shipping details

| Category          | US10MSX22533  |
|-------------------|---------------|
| Discount Schedule | 0MSX          |
| Gtin              | 3606480648946 |
| Returnability     | Yes           |
| Country Of Origin | JP            |

# **Packing Units**

| Unit Type Of Package 1       | PCE                      |
|------------------------------|--------------------------|
| Number Of Units In Package 1 | 1                        |
| Package 1 Height             | 2.95 in (7.500 cm)       |
| Package 1 Width              | 4.13 in (10.500 cm)      |
| Package 1 Length             | 4.92 in (12.500 cm)      |
| Package 1 Weight             | 7.55 oz (214.000 g)      |
| Unit Type Of Package 2       | S04                      |
| Number Of Units In Package 2 | 42                       |
| Package 2 Height             | 11.81 in (30.000 cm)     |
| Package 2 Width              | 15.75 in (40.000 cm)     |
| Package 2 Length             | 23.62 in (60.000 cm)     |
| Package 2 Weight             | 22.11 lb(US) (10.027 kg) |

# Sustainability Screen Premium

**Green Premium**<sup>TM</sup> **label** is Schneider Electric's commitment to delivering products with best-inclass environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >





Transparency RoHS/REACh

# Well-being performance

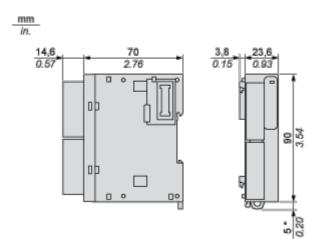
| <b>②</b> | Toxic Heavy Metal Free         |
|----------|--------------------------------|
| <b>Ø</b> | Mercury Free                   |
| <b>Ø</b> | Rohs Exemption Information Yes |
| <b>Ø</b> | Pvc Free                       |

#### **Certifications & Standards**

| Reach Regulation          | REACh Declaration   |
|---------------------------|---|
| Eu Rohs Directive         | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration  |
| China Rohs Regulation     | China RoHS declaration  |
| Environmental Disclosure  | Product Environmental Profile   |
| Weee                      | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.  |
| Circularity Profile       | End of Life Information   |
| California Proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |

# **Dimensions Drawings**

#### **Dimensions**

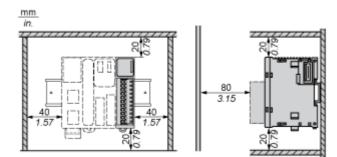


(\*) 8.5 mm/0.33 in when the clamp is pulled out.

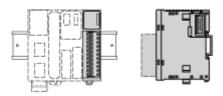
# **TM3AM6**

# Mounting and Clearance

# **Spacing Requirements**



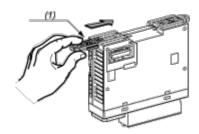
# Mounting on a Rail



# **Incorrect Mounting**

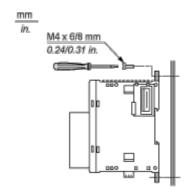


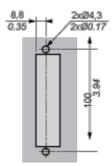
#### Mounting on a Panel Surface



(1) Install a mounting strip

# **Mounting Hole Layout**

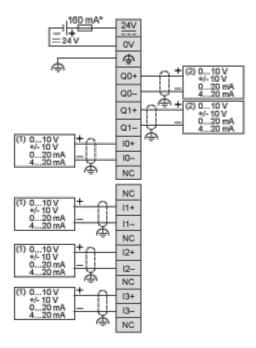




Connections and Schema

#### **Analogue Mixed I/O Module**

#### Wiring Diagram (Current / Voltage)



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