

# Product data sheet

Specifications



## analog output module, Modicon TM3, 4 outputs, screw, 24V DC

TM3AQ4

### Main

Range Of Product	Modicon TM3
Product Or Component Type	Analog output module
Range Compatibility	Modicon M221 Modicon M241 Modicon M251 Modicon M262
Analogue Output Number	4
Analogue Output Type	Current: 4...20 mA Current: 0...20 mA Voltage: 0...10 V Voltage: - 10...10 V

### Complementary

Analogue Input Resolution	12 bits 11 bits + sign
Analogue Output Resolution	11 bits + sign 12 bits
Lsb Value	2.44 mV 0...10 Vvoltage 4.88 mV - 10...10 Vvoltage 4.88 µA 0...20 mAcurrent 3.91 µA 4...20 mAcurrent
Load Type	Resistive
Load Impedance Ohmic	1 kOhm voltage 300 Ohm current
Stabilisation Time	1 ms
Conversion Time	1 ms + 1 ms per channel + 1 controller cycle time
Absolute Accuracy Error	+/- 1 % of full scale +/- 0.2 % of full scale at 25 °C
Temperature Drift	+/- 0.01 %FS/°C
Repeat Accuracy	+/- 0.4 %FS
Non-Linearity	+/- 0.2 %FS
Output Ripple	20 mV
Cross Talk	<= 1 LSB
[Us] Rated Supply Voltage	24 V DC
Supply Voltage Limits	20.4...28.8 V
Type Of Cable	Twisted shielded pairs cable <30 m for output circuit

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Current Consumption	40 mA at 5 V DC via bus connector no load 50 mA at 5 V DC via bus connector full load 50 mA at 24 V DC via external supply no load 125 mA at 24 V DC via external supply full load
Local Signalling	1 LED (green) for PWR
Electrical Connection	11 x 2.5 mm² removable screw terminal block with pitch 5.08 mm adjustment for outputs and supply
Insulation	Between output and supply at 1500 V AC Between output and internal logic at 500 V AC
Marking	CE
Surge Withstand	1 kV power supply common mode conforming to IEC 61000-4-5 0.5 kV power supply differential mode conforming to IEC 61000-4-5 1 kV output common mode conforming to IEC 61000-4-5
Mounting Support	Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715 plate or panel with fixing kit
Height	90 mm
Depth	70 mm
Width	23.6 mm
Net Weight	0.115 kg

## Environment

Standards	IEC 61131-2
Product Certifications	CE UKCA RCM EAC cULus cULus HazLoc
Resistance To Electrostatic Discharge	8 kV in air conforming to IEC 61000-4-2 4 kV on contact conforming to IEC 61000-4-2
Resistance To Electromagnetic Fields	10 V/m 80 MHz...1 GHz conforming to IEC 61000-4-3 3 V/m 1.4 GHz...2 GHz conforming to IEC 61000-4-3 1 V/m 2 GHz...3 GHz conforming to IEC 61000-4-3
Resistance To Magnetic Fields	30 A/m conforming to IEC 61000-4-8
Resistance To Fast Transients	1 kV (I/O) conforming to IEC 61000-4-4
Resistance To Conducted Disturbances	10 V 0.15...80 MHz conforming to IEC 61000-4-6 3 V 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 IEC 55011 Radiated emissions - test level: 47 dBµV/m QP class A ( 10 m) at 230...1000 MHz conforming to IEC 55011
Immunity To Microbreaks	10 ms
Ambient Air Temperature For Operation	-10...55 °C horizontal installation -10...35 °C vertical installation
Ambient Air Temperature For Storage	-25...70 °C
Relative Humidity	10...95 %, without condensation (in operation) 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 on DIN rail 3 gn at 8.4...150 Hz on DIN rail
Shock Resistance	15 gn for 11 ms

## Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	7.500 cm
Package 1 Width	10.700 cm
Package 1 Length	12.500 cm
Package 1 Weight	198.000 g
Unit Type Of Package 2	S04
Number Of Units In Package 2	42
Package 2 Height	30.000 cm
Package 2 Width	40.000 cm
Package 2 Length	60.000 cm
Package 2 Weight	9.030 kg

## Sustainability

**Green Premium™** label is Schneider Electric's commitment to delivering products with best-in-class 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

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information   [Yes](#)

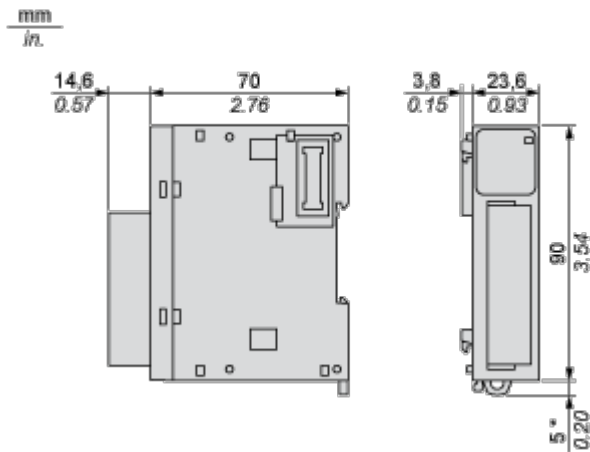
✓ Pvc Free

## Certifications & Standards

Reach Regulation	<a href="#">REACH Declaration</a>
Eu Rohs Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
China Rohs Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Weee	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
Circularity Profile	<a href="#">End of Life Information</a>
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 <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>

Dimensions Drawings

Dimensions

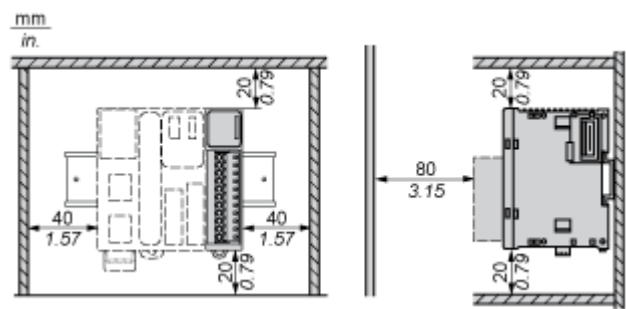


(\*) 8.5 mm/0.33 in when the clamp is pulled out.

Mounting and Clearance

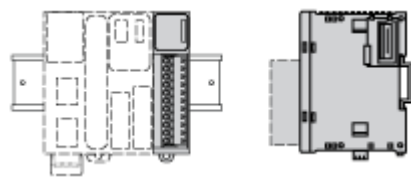
Spacing Requirements

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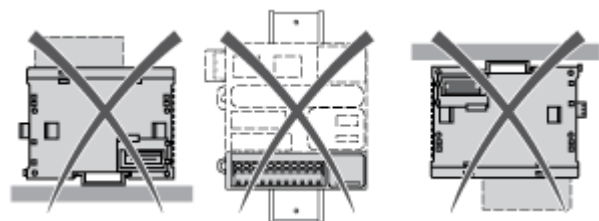


Mounting on a Rail

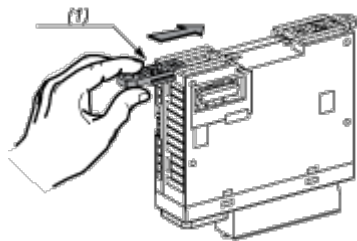
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Incorrect Mounting

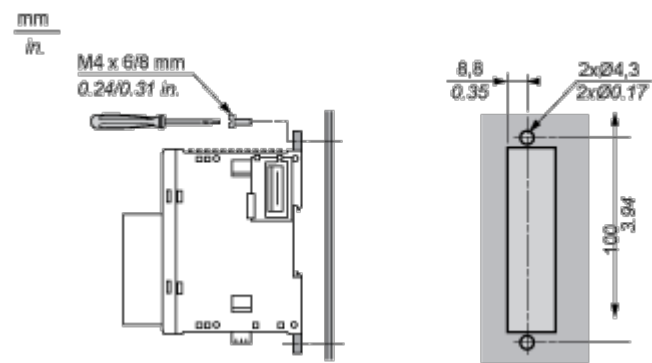


Mounting on a Panel Surface



- (1) Install a mounting strip

Mounting Hole Layout

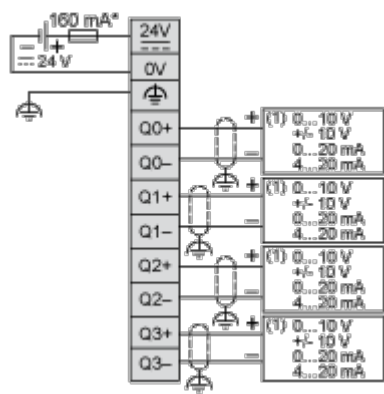




Connections and Schema

Analogue Output Module

Wiring Diagram (Current / Voltage)



- (\*) Type T fuse
- (1) Voltage/current pre-actuator