

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 V voltage 4.88 mV - 10...10 V voltage 4.88 µA 0...20 mA current 3.91 µA 4...20 mA current
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 77 °F (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 <98.43 ft (30 m) output

Current Consumption	40 mA 5 V DC via bus connector no load 50 mA 5 V DC via bus connector full load 50 mA 24 V DC via external supply no load 125 mA 24 V DC via external supply full load
Local Signalling	PWR 1 LED green)
Electrical Connection	11 x 2.5 mm ² removable screw terminal block pitch 5.08 mm for outputs and supply
Insulation	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 output common 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	0.25 lb(US) (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 IEC 61000-4-2 4 kV on contact IEC 61000-4-2
Resistance To Electromagnetic Fields	9.14 V/yd (10 V/m) 80 MHz...1 GHz IEC 61000-4-3 2.74 V/yd (3 V/m) 1.4 GHz...2 GHz IEC 61000-4-3 0.91 V/yd (1 V/m) 2 GHz...3 GHz IEC 61000-4-3
Resistance To Magnetic Fields	98.43 A/ft (30 A/m) IEC 61000-4-8
Resistance To Fast Transients	1 kV IEC 61000-4-4 I/O)
Resistance To Conducted Disturbances	10 V 0.15...80 MHz IEC 61000-4-6 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 dB μ V/m QP class A 10 m)30...230 MHz IEC 55011 Radiated emissions 47 dB μ V/m QP class A 10 m)230...1000 MHz IEC 55011
Immunity To Microbreaks	10 ms
Ambient Air Temperature For Operation	14...131 °F (-10...55 °C) horizontal installation 14...95 °F (-10...35 °C) vertical installation
Ambient Air Temperature For Storage	-13...158 °F (-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	0.00...9842.52 ft (0...3000 m)

Vibration Resistance	3.5 mm 5...8.4 Hz DIN rail 3 gn 8.4...150 Hz DIN rail
Shock Resistance	15 gn 11 ms

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	4.21 in (10.700 cm)
Package 1 Length	4.92 in (12.500 cm)
Package 1 Weight	6.98 oz (198.000 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	19.91 lb(US) (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-CO₂ 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

[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

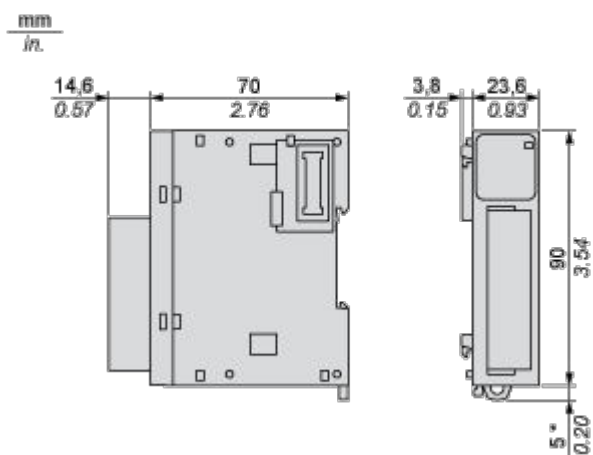
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile

[End of Life Information](#)

Dimensions Drawings

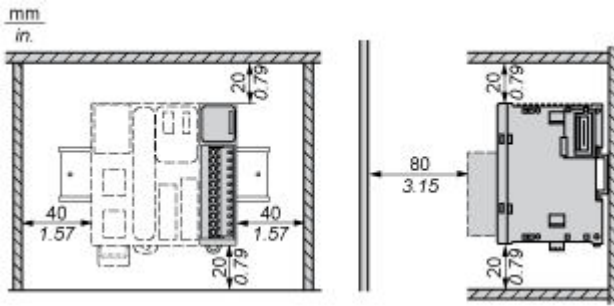
Dimensions



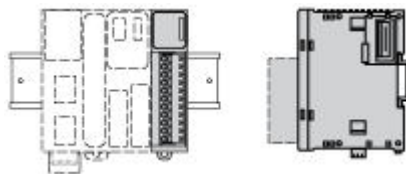
(*) 8.5 mm/0.33 in when the clamp is pulled out.

Mounting and Clearance

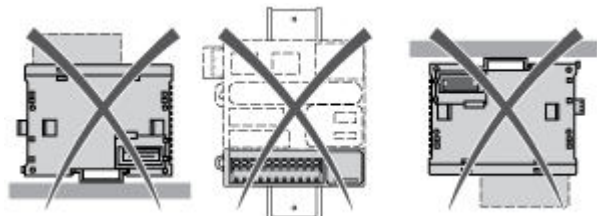
Spacing Requirements



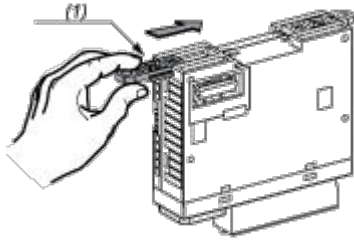
Mounting on a Rail



Incorrect Mounting

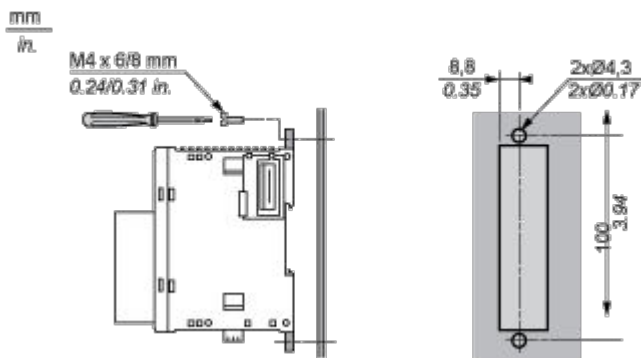


Mounting on a Panel Surface



- (1) Install a mounting strip

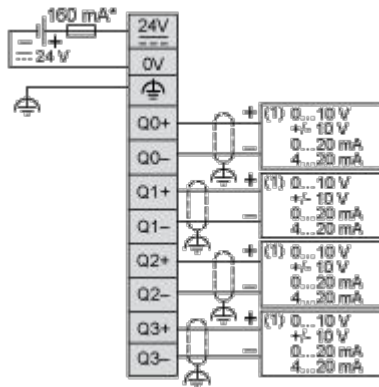
Mounting Hole Layout



Connections and Schema

Analogue Output Module

Wiring Diagram (Current / Voltage)



(*) Type T fuse

(1) Voltage/current pre-actuator