



### Main

Range of product	Modicon TM3
Product or component type	Analog input module
Range compatibility	Modicon M241 Modicon M221 Modicon M251
Analogue input number	4
Analogue input 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
Permissible continuous overload	13 V, analogue input type: voltage 40 mA, analogue input type: current
Input impedance	<= 50 Ohm current >= 1 MOhm voltage
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
Conversion time	1 ms + 1 ms per channel + 1 controller cycle time
Sampling duration	1 Ms
Absolute accuracy error	+/- 0.1 % of full scale at 25 °C +/- 1 % of full scale
Temperature drift	+/- 0.006 %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	Twisted shielded pairs cable <30 m for input circuit
Current consumption	35 mA at 5 V DC via bus connector no load 45 mA at 5 V DC via bus connector full load 30 mA at 24 V DC via external supply
Local signalling	1 LED (green)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 10 x 1.5 mm <sup>2</sup> removable screw terminal block with pitch 3.81 mm adjustment- for inputs
Insulation	Between input and supply at 1500 V AC Between input and internal logic at 500 V AC

Marking	CE
Surge withstand	1 KV power supply common mode conforming to EN/IEC 61000-4-5 0.5 KV power supply differential mode conforming to EN/IEC 61000-4-5 1 KV input common mode conforming to EN/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	0.11 Kg

## Environment

Standards	EN/IEC 61131-2 EN/IEC 61010-2-201
Resistance to electrostatic discharge	8 KV in air conforming to EN/IEC 61000-4-2 4 KV on contact conforming to EN/IEC 61000-4-2
Resistance to electromagnetic fields	10 V/M 80 MHz...1 GHz conforming to EN/IEC 61000-4-3 3 V/M 1.4 GHz...2 GHz conforming to EN/IEC 61000-4-3 1 V/M 2 GHz...3 GHz conforming to EN/IEC 61000-4-3
Resistance to magnetic fields	30 A/M 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	10 V 0.15...80 MHz conforming to EN/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 dB $\mu$ V/m QP class A ( 10 m) at 30...230 MHz- conforming to EN/IEC 55011 Radiated emissions - test level: 47 dB $\mu$ V/m QP clas- s A ( 10 m) at 230...1000 MHz conforming to EN/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

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Decla- ration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS Declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End Of Life Information</a>
WEEE	The product must be disposed on European Union markets following speci- fic waste collection and never end up in rubbish bins

Product Life Status : **Commercialised**