

Product data sheet

Specifications



Analog input module, Modicon TM5, FS, 2I, thermocouple J/K/N/S/R/C/T, 24 bits

TM5STI4ATCFS

Main

Range of product	Modicon TM5
Product or component type	Analog input module
Analogue input number	4
Analogue input type	thermocouple - 210...1200 °C with thermocouple J thermocouple - 270...1300 °C with thermocouple N thermocouple - 270...1372 °C with thermocouple K thermocouple - 50...1768 °C with thermocouple S thermocouple - 50...1768 °C with thermocouple R thermocouple 0...2320 °C with thermocouple C thermocouple -270...+400 °C with thermocouple T
Analogue input resolution	24 bits

Complementary

Range compatibility	Modicon M258 Modicon LMC058
Product compatibility	Logic controller Motion controller
Measurement resolution	0.1 °C
Colour	Red
Input filtering	1 ms configurable by software 2 ms configurable by software 10 ms configurable by software 16.7 ms configurable by software 20 ms configurable by software 33.3 ms configurable by software 40 ms configurable by software 66.7 ms configurable by software
Sampling duration	5 ms 7 ms 14 ms 20 ms 25 ms 40 ms 48 ms 62 ms
Measurement error	2.5 % of full scale - 210...1200 °C thermocouple J at 25 °C 2.9 % of full scale - 270...1372 °C thermocouple K 3.3 % of full scale - 270...1300 °C thermocouple N 8.3 % of full scale - 50...1768 °C thermocouple S 7.4 % of full scale - 50...1768 °C thermocouple R 4.8 % of full scale 0...2320 °C thermocouple C 4.6 % of full scale - 270...400 °C thermocouple T 1.6 % of full scale - 40...130 °C Pt 100/Pt 1000
Temperature coefficient	< 0.0021 %FS/°C, analogue input type: thermocouple
Type of cable	Shielded cable

Isolation	500 Vrms AC insulation between channel and bus No insulation between channels
Supply	Internal
[Us] rated supply voltage	24 V DC -15...20 %
Common mode rejection	> 70 dB
Local signalling	1 LED green for power supply 1 LED red for power supply 6 LEDs green for input status
Current consumption	2 mA at 5 V DC bus 30 mA at 24 V DC input/output
Maximum power dissipation in W	0.73 W
Marking	CE
Product weight	0.066 kg

Environment

Standards	EN 50156-1 IEC 62061 IEC 61508 ISO 13849-1 UL 508 IEC 61511
Product certifications	cULus CSA
Ambient air temperature for operation	0...40 °C (vertical installation) 0...55 °C (horizontal installation)
Ambient air temperature for storage	-25...70 °C
Relative humidity	5...95 % without condensation
IP degree of protection	IP20 conforming to IEC 61131-2
Pollution degree	2 conforming to IEC 60664
Operating altitude	0...2000 m
Storage altitude	0...3000 m
Vibration resistance	1 gn at 8.4...150 Hz on DIN rail 3.5 mm at 5...8.4 Hz on DIN rail
Shock resistance	15 gn for 11 ms
Resistance to electrostatic discharge	4 kV on contact conforming to EN/IEC 61000-4-2 8 kV in air conforming to EN/IEC 61000-4-2
Resistance to electromagnetic fields	1 V/m 2...2.7 GHz conforming to EN/IEC 61000-4-3 10 V/m 80...2000 MHz conforming to EN/IEC 61000-4-3
Resistance to fast transients	1 kV (I/O) conforming to EN/IEC 61000-4-4 1 kV (shielded cable) conforming to EN/IEC 61000-4-4 2 kV (power lines) conforming to EN/IEC 61000-4-4
Surge withstand	0.5 kV differential mode conforming to EN/IEC 61000-4-5 1 kV common mode conforming to EN/IEC 61000-4-5
Electromagnetic compatibility	EN/IEC 61000-4-6
Disturbance radiated/ conducted	CISPR 11

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	3.100 cm
Package 1 Width	6.000 cm

Package 1 Length	10.400 cm
Package 1 Weight	66.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	50
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	3.500 kg

Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	REACH Declaration
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration
Toxic heavy metal free	Yes
Mercury free	Yes
China RoHS Regulation	China RoHS declaration
RoHS exemption information	Yes
Environmental Disclosure	Product Environmental Profile
Circularity Profile	End of Life Information
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes
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

Recommended replacement(s)