Product data sheet

Specifications

analog input module, Modicon TM5, 6I, thermocouple J, K, N, S, 16bits

TM5SAI6TH

Product availability: Non-Stock - Not normally stocked in distribution facility

Price*: 920.00 USD

Main

Range Of Product	Modicon TM5
Product Or Component Type	Analog input module
Analogue Input Number	6
Analogue Input Type	thermocouple - 210...1200 °C thermocouple J thermocouple - 270...1300 °C thermocouple N thermocouple - 270...1372 °C thermocouple K thermocouple - 50...1768 °C thermocouple S
Analogue Input Resolution	16 bits

Complementary

Range Compatibility	Modicon LMC058 Modicon M258
Product Compatibility	Logic controller Motion controller
Measurement Resolution	0.1 °C
Color	White
Input Filtering	1...66.7 ms configurable by software
Measurement Error	+/- 0.1 % of full scale - 210...1200 °C thermocouple J 25 °C +/- 0.11 % of full scale - 270...1300 °C thermocouple N 25 °C +/- 0.11 % of full scale - 270...1372 °C thermocouple K 25 °C +/- 0.17 % of full scale - 50...1768 °C thermocouple S 25 °C
Temperature Coefficient	0.01 %FS/°C thermocouple
Non-Linearity	+/- 0.001 %FS thermocouple
Type Of Cable	Shielded cable
Isolation	No insulation between channels 500 Vrms AC insulation between channel and bus
Supply	Internal
[Us] Rated Supply Voltage	24 V DC -15...20 %
Common Mode Rejection	> 70 dB
Local Signalling	1 LED green power supply 1 LED red power supply 6 LEDs green input status
Current Consumption	2 mA 5 V DC bus 38 mA 24 V DC input/output
Maximum Power Dissipation In W	0.92 W
Marking	CE

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

Net Weight	0.06 lb(US) (0.025 kg)

Environment

Standards	IEC 61131-2 CSA C22.2 No 213 UL 508 CSA C22.2 No 142
Product Certifications	CSA GOST-R cULus C-tick
Ambient Air Temperature For Operation	32…131 °F (0…55 °C) without derating horizontal installation) 32…140 °F (0…60 °C) with derating factor horizontal installation) 32…122 °F (0…50 °C) vertical installation)
Ambient Air Temperature For Storage	-13…158 °F (-25…70 °C)
Relative Humidity	5…95 % without condensation
Ip Degree Of Protection	IP20IEC 61131-2
Pollution Degree	2 IEC 60664
Operating Altitude	0...6561.68 ft (0...2000 m)
Storage Altitude	0.00…9842.52 ft (0…3000 m)
Vibration Resistance	1 gn 8.4…150 Hz DIN rail 3.5 mm 5…8.4 Hz DIN rail
Shock Resistance	15 gn 11 ms
Resistance To Electrostatic Discharge	4 kV on contact IEC 61000-4-2 8 kV in air IEC 61000-4-2
Resistance To Electromagnetic Fields	0.91 V/m (1 V/m) 2...2.7 GHz IEC 61000-4-3 9.14 V/m (10 V/m) 80...2000 MHz IEC 61000-4-3
Resistance To Fast Transients	1 kV IEC 61000-4-4 I/O) 1 kV IEC 61000-4-4 shielded cable) 2 kV IEC 61000-4-4 power lines)
Surge Withstand	0.5 kV differential mode IEC 61000-4-5 1 kV common mode IEC 61000-4-5
Electromagnetic Compatibility	EN/IEC 61000-4-6
Disturbance Radiated/Conducted	CISPR 11

Ordering and shipping details

Category	US1PC1222532
Discount Schedule	PC12
Gtin	3595864074788
Returnability	No
Country Of Origin	US

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	0.79 in (2.0 cm)
Package 1 Width	2.36 in (6.0 cm)
Package 1 Length	4.13 in (10.5 cm)

Package 1 Weight	1.45 oz (41.0 g)
Unit Type Of Package 2	S02
Number Of Units In Package 2	97
Package 2 Height	5.91 in (15.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	9.44 lb(US) (4.28 kg)

Contractual warranty

Warranty	18 months

Sustainability

Green Premium^{TM} 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_2 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

Reach Free Of Svhc	
Toxic Heavy Metal Free	
Mercury Free	
Rohs Exemption Information	Yes
Pvc Free	

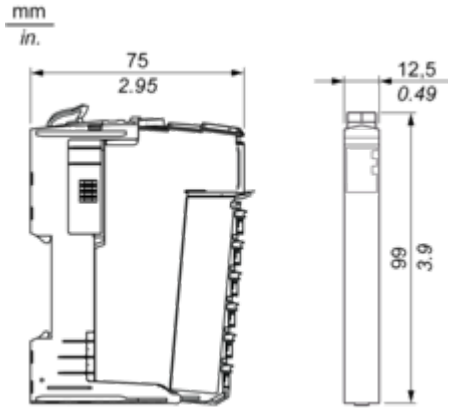
Certifications & Standards

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
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

TM5 Slice

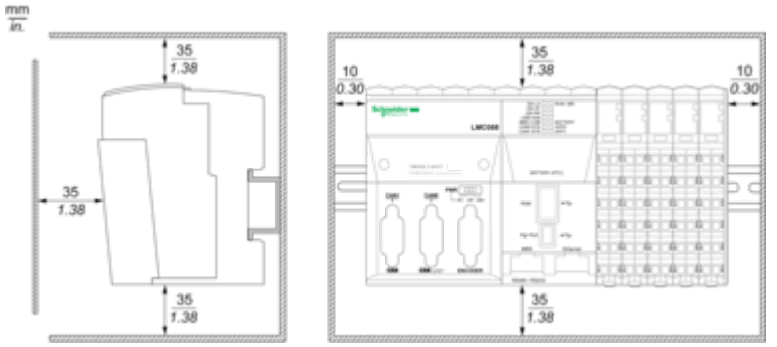
Dimensions



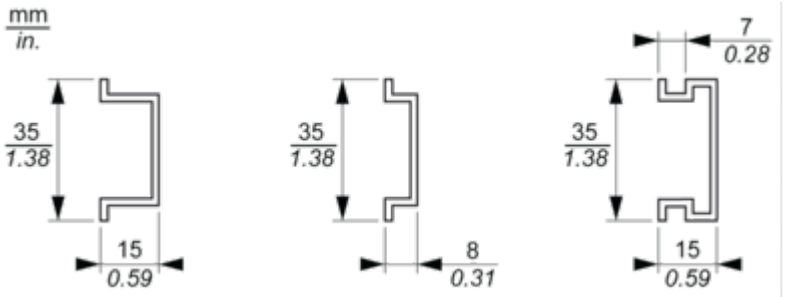
Mounting and Clearance

TM5 System

Spacing Requirements



Mounting on a DIN Rail



Connections and Schema

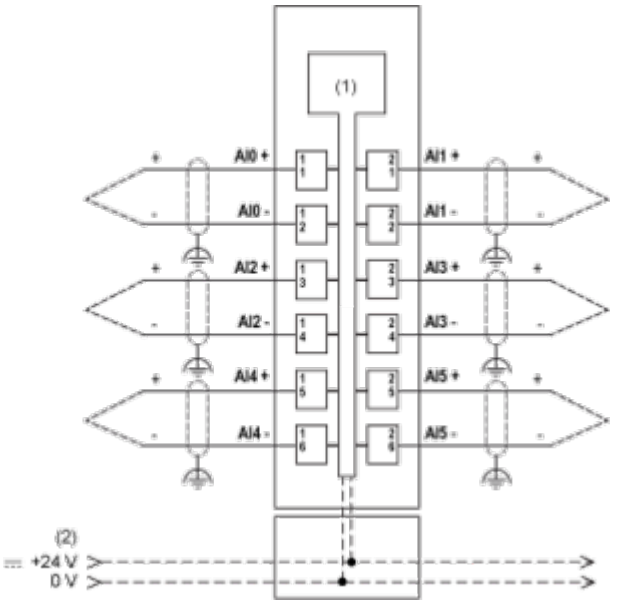
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm / in. 9 / 0.35				
mm²	0,08...2,5	0,25...2,5	0,25...1,5	2 x 0,25...2 x 0,75
AWG	28...14	24...14	24...16	2 x 24...2 x 18

Electronic Module 6AI Thermocouple J/K/N/S 16 Bits

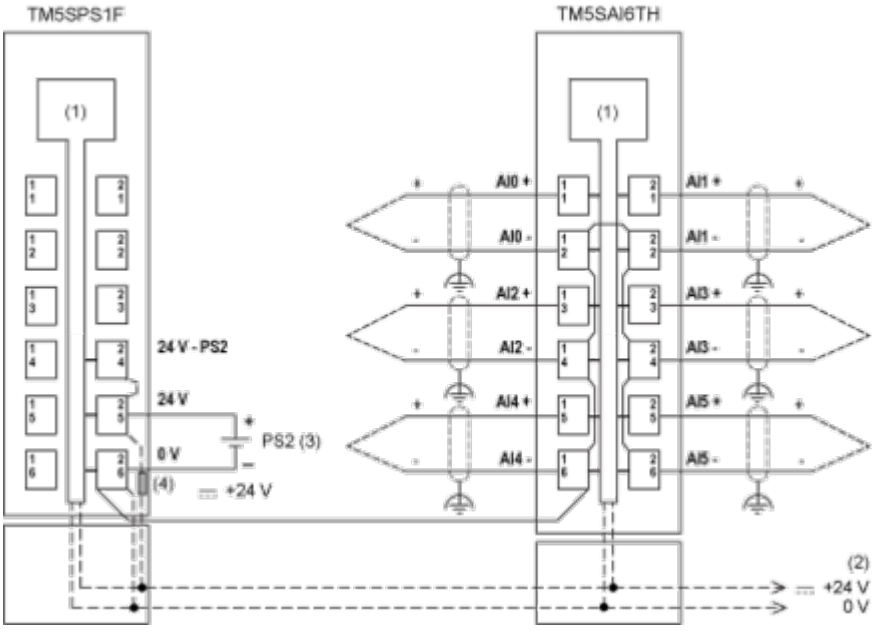
Wiring Diagram



(1) Internal electronics
(2) 24 Vdc I/O power segment integrated into the bus bases

Ceramic Heating Element with Integrated Thermo Elements

Ripple voltage effects can potentially cause measurement errors.
The following figure shows the wiring diagram with a PDM:



(1) Internal electronics
(2) 24 Vdc I/O power segment integrated into the bus bases
(3) PS2: External isolated SELV power supply 24 Vdc limited to 200 VA for UL508 conformance, or limited to 150 VA for CSA 22.2, N° 142 conformance
(4) Integrated fuse type T slow-blow 6.3 A 250 V exchangeable