

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

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 %
EMI/RFI Noise rejection (100 kHz to 10 MHz)	> 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
Net Weight	0.055 lb(US) (0.025 kg)

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

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...9842.5 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	0.9 V/m (1 V/m) 2...2.7 GHz IEC 61000-4-3 9.1 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	AT

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	0.8 in (2.0 cm)
Package 1 Width	2.4 in (6.0 cm)
Package 1 Length	4.1 in (10.5 cm)
Package weight(Lbs)	1.4 oz (41.0 g)
Unit Type of Package 2	S02

Number of Units in Package 2	97
Package 2 Height	5.9 in (15.0 cm)
Package 2 Width	11.8 in (30.0 cm)
Package 2 Length	15.7 in (40.0 cm)
Package 2 Weight	9.44 lb(US) (4.28 kg)

Contractual warranty

Warranty	18 months
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Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint

[Environmental Disclosure](#)

[Product Environmental Profile](#)

Use Better

Materials and Substances

Packaging made with recycled cardboard

No

Packaging without single use plastic

Yes

[EU RoHS Directive](#)

Pro-active compliance (Product out of EU RoHS legal scope)

REACH Regulation

[REACH Declaration](#)

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

PVC free

Yes

Use Again

Repack and remanufacture

[Circularity Profile](#)

[End of Life Information](#)

Take-back

No

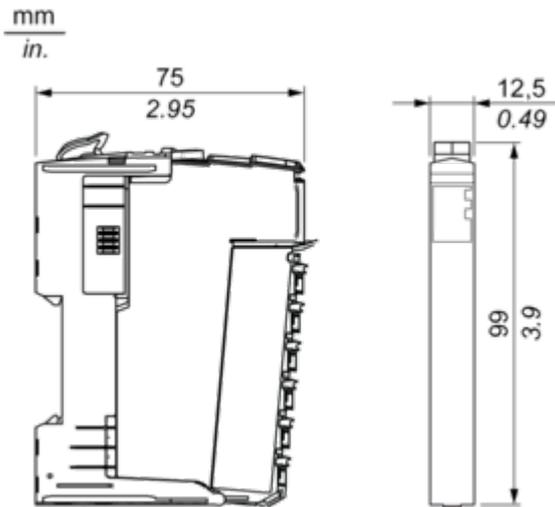
WEEE Label

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

Dimensions Drawings

TM5 Slice

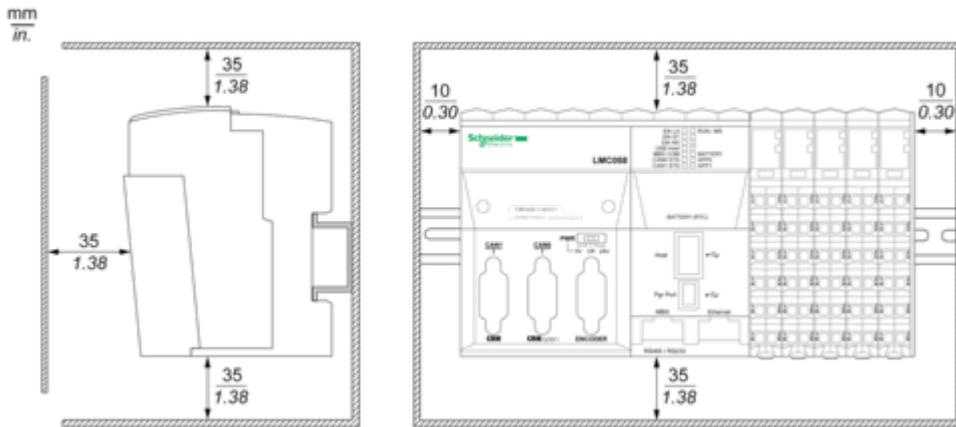
Dimensions



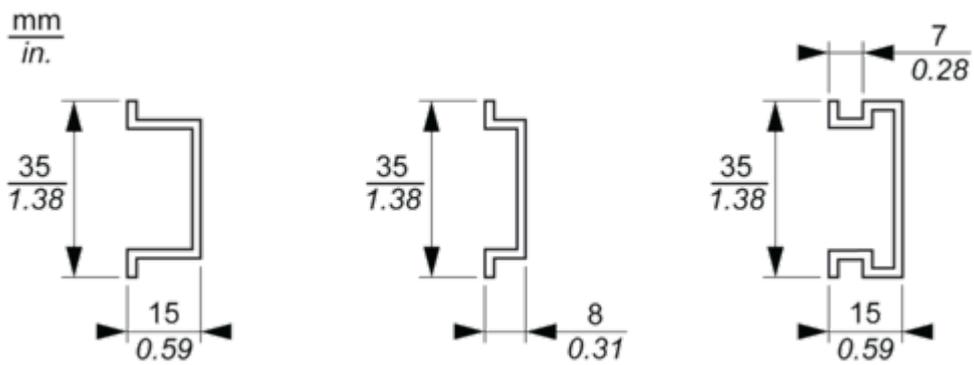
Mounting and Clearance

TM5 System

Spacing Requirements



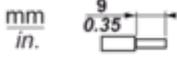
Mounting on a DIN Rail



Connections and Schema

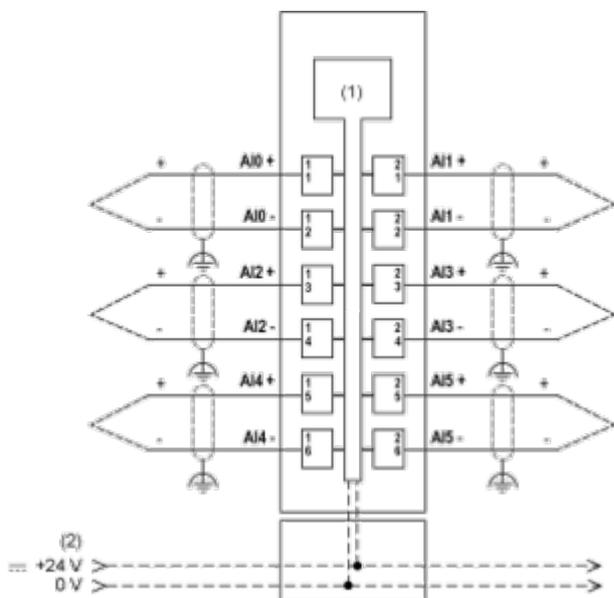
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

 mm in.				
mm ²	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

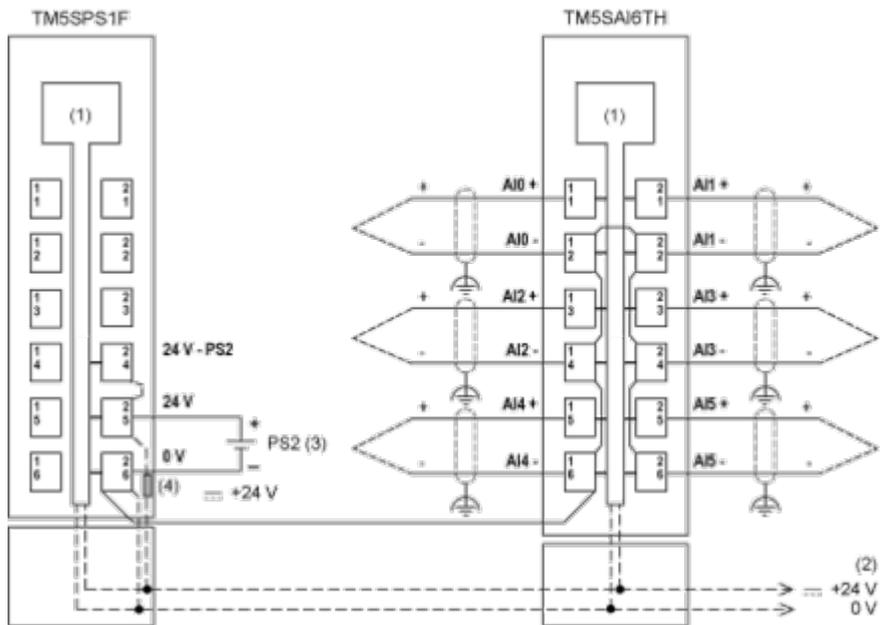
Wiring Diagram



- (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