Specifications





analog input module, Modicon TM5, 2I, +/-10V, 0 to 20mA, 16bits

TM5SAI2H

Main

Range Of Product	Modicon TM5		
Product Or Component Type	Analog input module		
Analogue Input Number	2		
Analogue Input Type	current 020 mA differential voltage +/- 10 V differential		
Analogue Input Resolution	15 bits + sign +/- 10 V 15 bits 020 mA		

Complementary

Complementary				
Range Compatibility	Modicon LMC058 Modicon M258			
Product Compatibility	Logic controller			
	Motion controller			
Measurement Resolution	305 µV, +/- 10 V			
	610 nA, 020 mA			
Colour	White			
Input Impedance	>= 20 mOhm voltage			
Load Impedance Ohmic	<= 400 Ohm (current)			
Sampling Duration	50 µs			
Measurement Error	< 0.08 % of full scale +/- 10 V +/- 10 V at 25 °C			
	< 0.08 % of full scale 020 mA 020 mA at 25 °C			
Temperature Coefficient	0.01 %FS/°C			
Non-Linearity	< 0.01 %FS, analogue input type: voltage			
	< 0.015 %FS, analogue input type: current			
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 -1520 %			
Common Mode Rejection	> 70 dB			
Local Signalling	1 LED green for power supply			
	1 LED red for power supply			
	2 LEDs green for input status			
Current Consumption	2 mA at 5 V DC bus			
	50 mA at 24 V DC input/output			
Maximum Power Dissipation In W	N 1.21 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

Environment

Environment					
Standards	CSA C22.2 No 142 IEC 61131-2 UL 508 CSA C22.2 No 213				
Product Certifications	C-Tick GOST-R cULus CSA				
Ambient Air Temperature For Operation	055 °C without derating (horizontal installation) 060 °C with derating factor (horizontal installation) 050 °C (vertical installation)				
Ambient Air Temperature For Storage	-2570 °C				
Relative Humidity	595 % without condensation				
Ip Degree Of Protection	IP20 conforming to IEC 61131-2				
Pollution Degree	2 conforming to IEC 60664				
Operating Altitude	02000 m				
Storage Altitude	03000 m				
Vibration Resistance	1 gn at 8.4150 Hz on DIN rail 3.5 mm at 58.4 Hz on DIN rail				
Shock Resistance	15 gn for 11 ms				
Resistance To Electrostatic Discharge	4 kV on contact conforming to IEC 61000-4-2 8 kV in air conforming to IEC 61000-4-2				
Resistance To Electromagnetic Fields	1 V/m 22.7 GHz conforming to IEC 61000-4-3 10 V/m 802000 MHz conforming to IEC 61000-4-3				
Resistance To Fast Transients	1 kV (I/O) conforming to IEC 61000-4-4 1 kV (shielded cable) conforming to IEC 61000-4-4 2 kV (power lines) conforming to IEC 61000-4-4				
Surge Withstand	0.5 kV differential mode conforming to IEC 61000-4-5 1 kV common mode conforming to IEC 61000-4-5				
Electromagnetic Compatibility	EN/IEC 61000-4-6				
Disturbance Radiated/Conducted	d CISPR 11				

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	2.000 cm
Package 1 Width	6.000 cm
Package 1 Length	10.600 cm
Package 1 Weight	41.000 g
Unit Type Of Package 2	S02
Number Of Units In Package 2	97
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	4.278 kg

Contractual warranty

Warranty

18 months

Sustainability Screen Premium

Green PremiumTM label is Schneider Electric's commitment to delivering products with best-inclass 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

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

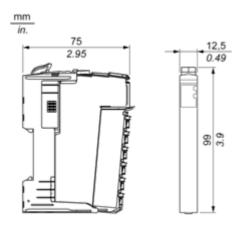
Certifications & Standards

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		

Dimensions Drawings

TM5 Slice

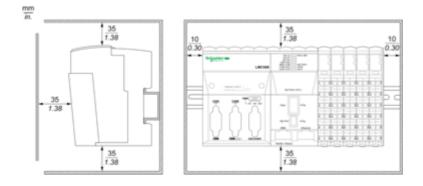
Dimensions



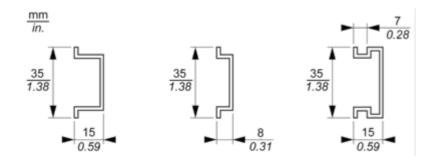
Mounting and Clearance

TM5 System

Spacing Requirements



Mounting on a DIN Rail



Connections and Schema

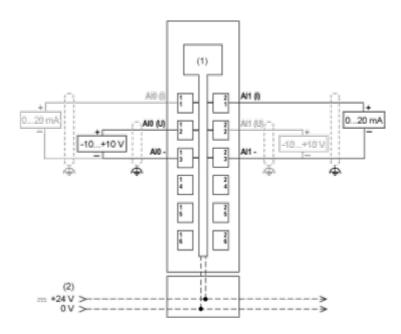
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm in.	0.35		2		æ
	mm ²	0,082,5	0,252,5	0,251,5	2 x 0,252 x 0,75
	AWG	2814	2414	2416	2 x 242 x 18

Electronic Module 2AI ±10V/0-20mA 16 Bits

Wiring Diagram



(1) Internal electronics

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

(I) Current

(U) Voltage

Condition of Installation

Do not place 16-bit analog input modules side-by-side because their electromagnetic characteristics may lead to mutual interference and possible unintended equipment operation. Further, other types of equipments can generate similar electromagnetic interference affecting the conversion accuracy of the modules. In the physical configuration, a single slice of non-interfering equipment is sufficient to avoid this type of disturbance. Separate the 16-bit analog modules from each other and from the following equipment:

- TM5SBER2 Bus receiver
- TM5SPS2 and TM5SPS2F Power Distribution Modules
- TM258 ••• and LMC058 ••• Controllers