

TM5SAI4LK

Analog input module, Modicon TM5,
Composition kit of I/O(TM5SAI4L) + term.
block(TM5ACTB12) + bus base(TM5ACBM11)



Main

Range of product	Modicon TM5
Product or component type	Analog input module
Analogue input number	4
Analogue input type	Current 0...20 mA/4...20 mA differential Voltage +/- 10 V differential
Analogue input resolution	12 bits + sign +/- 10 V 12 bits 0...20 mA/4...20 mA

Complementary

Device composition	Bus sub-base TM5ACBM11 Terminal block TM5ACTB12 I/O module TM5SAI4L
Range compatibility	Modicon M258 Modicon LMC058
Product compatibility	Logic controller Motion controller
Measurement resolution	2.441 mV, +/- 10 V 4.883 µA, 0...20 mA/4...20 mA
Colour	White
Input impedance	>= 20 mOhm voltage
Load impedance ohmic	<= 400 Ohm (current)
Sampling duration	1 Ms, analogue input type: all inputs with filtering 400 µs, analogue input type: all inputs without filtering
Measurement error	< 0.08 % of full scale +/- 10 V +/- 10 V at 25 °C < 0.08 % of full scale 0...20 mA/4...20 mA at 25 °C
Temperature coefficient	+/- 0.009 %FS/°C, analogue input type: current +/- 0.006 %FS/°C, analogue input type: voltage
Non-linearity	< 0.025 %FS, analogue input type: voltage < 0.05 %FS, analogue input type: current
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 for power supply 1 LED red for power supply 4 LEDs green for input status
Current consumption	2 mA at 5 V DC bus 46 mA at 24 V DC input/output
Maximum power dissipation in W	1.11 W
Marking	CE
Net weight	0.065 kg

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

Environment

Standards	IEC 61131-2 CSA C22.2 No 213 CSA C22.2 No 142 UL 508
Product certifications	CSA GOST-R C-Tick CULus
Ambient air temperature for operation	0...55 °C without derating (horizontal installation) 0...60 °C with derating factor (horizontal installation) 0...50 °C (vertical 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

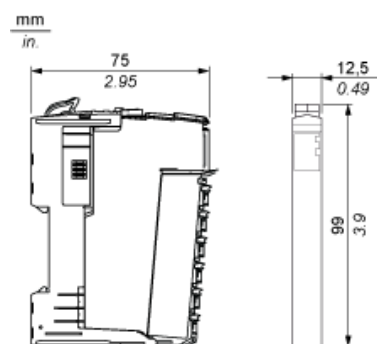
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	118 g
Package 1 Height	7 cm
Package 1 width	9 cm
Package 1 Length	10 cm
Unit Type of Package 2	S02
Number of Units in Package 2	15
Package 2 Weight	1.77 kg
Package 2 Height	15 cm
Package 2 width	30 cm
Package 2 Length	40 cm

Contractual warranty

Warranty	18 months
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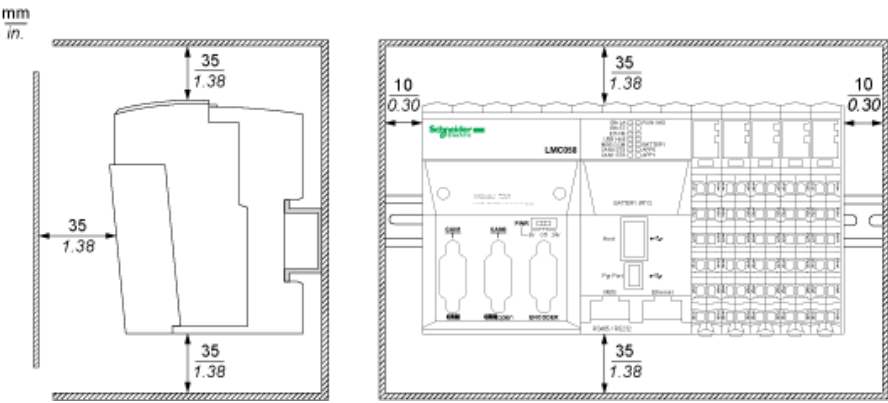
TM5 Slice

Dimensions

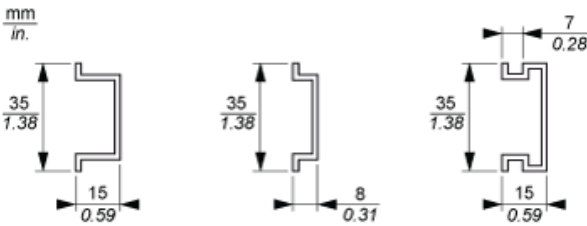


TM5 System

Spacing Requirements



Mounting on a DIN Rail



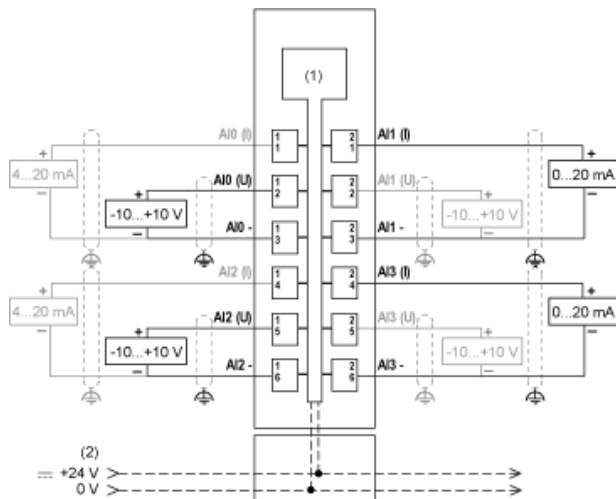
TM5 System Wiring Recommendations

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 4AI ±10V/0-20mA/4-20mA 12 Bits

Wiring Diagram



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