

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
Color	White
Input impedance	>= 20 mOhm voltage
Load impedance ohmic	<= 400 Ohm current)
Sampling duration	1 Ms all inputs with filtering 400 µs all inputs without filtering
Measurement error	< 0.08 % of full scale +/- 10 V +/- 10 V 25 °C < 0.08 % of full scale 0...20 mA/4...20 mA 25 °C
Temperature coefficient	+/- 0.009 %FS/°C current +/- 0.006 %FS/°C voltage
Non-linearity	< 0.025 %FS voltage < 0.05 %FS 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 power supply 1 LED red power supply 4 LEDs green input status
Current consumption	2 mA 5 V DC bus 46 mA 24 V DC input/output
Maximum power dissipation in W	1.11 W
Marking	CE
Net Weight	0.14 lb(US) (0.065 kg)

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Environment

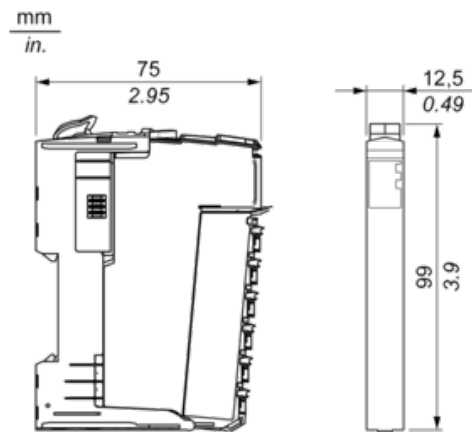
Standards	IEC 61131-2 CSA C22.2 No 213 CSA C22.2 No 142 UL 508
Product Certifications	CSA[RETURN]GOST-R[RETURN]C-tick[RETURN]cULus
Ambient air temperature for operation	32...131 °F (0...55 °C) without derating horizontal installation) 32...140 °F (0...60 °C) with derating factor horizontal installation) 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 EN/IEC 61000-4-2 8 kV in air EN/IEC 61000-4-2
Resistance to electromagnetic fields	0.91 V/m (1 V/m) 2...2.7 GHz EN/IEC 61000-4-3 9.14 V/m (10 V/m) 80...2000 MHz EN/IEC 61000-4-3
Resistance to fast transients	1 kV EN/IEC 61000-4-4 I/O) 1 kV EN/IEC 61000-4-4 shielded cable) 2 kV EN/IEC 61000-4-4 power lines)
Surge withstand	0.5 kV differential mode EN/IEC 61000-4-5 1 kV common mode 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	2.76 in (7.000 cm)
Package 1 Width	3.62 in (9.200 cm)
Package 1 Length	4.33 in (11.000 cm)
Package 1 Weight	4.09 oz (116.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	36
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	10.30 lb(US) (4.673 kg)

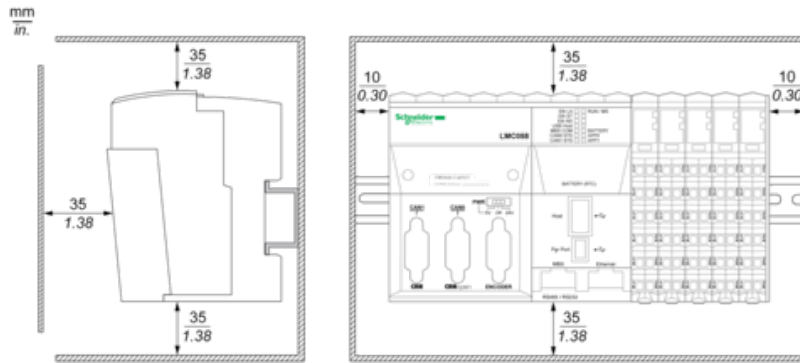
TM5 Slice

Dimensions

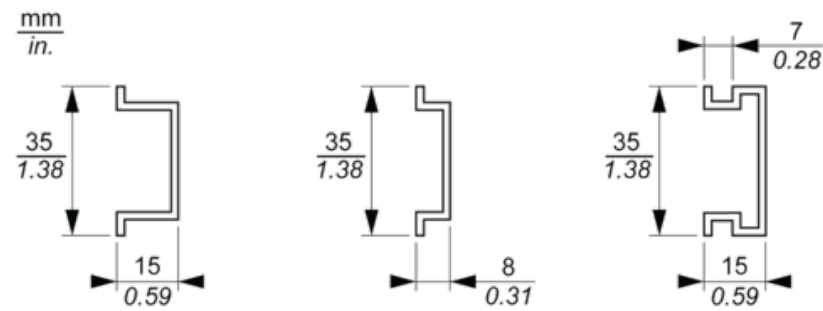


TM5 System

Spacing Requirements



Mounting on a DIN Rail



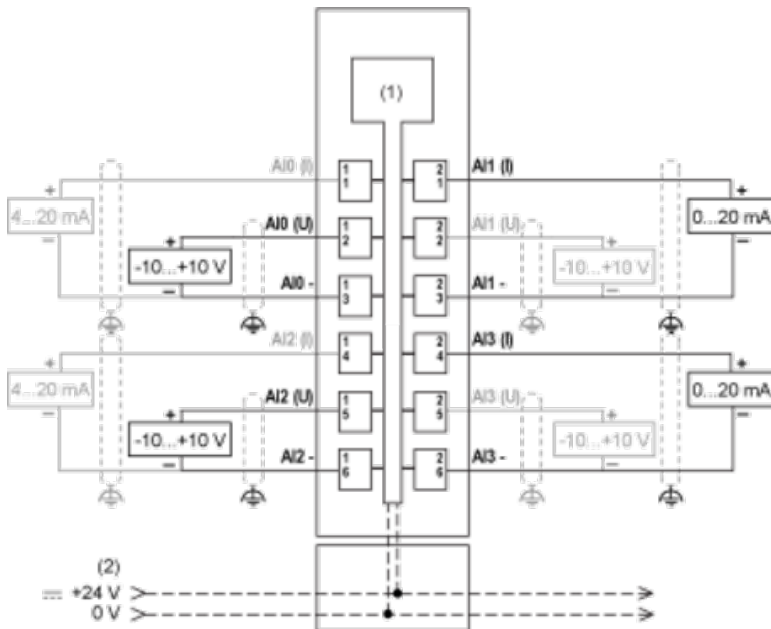
TM5 System Wiring Recommendations

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