

TM5SAI4PHK

Analog input module, Modicon TM5,
Composition kit of I/O(TM5SAI4PH) + 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	Pt 100/Pt 1000 temperature probe - 200...850 °C
Analogue input resolution	16 bits

Complementary

Device composition	Bus sub-base TM5ACBM11 Terminal block TM5ACTB12 I/O module TM5SAI4PH
Range Compatibility	Modicon LMC058 Modicon M258
Product Compatibility	Motion controller Logic controller
Measurement resolution	0.1 °C
Color	White
Measurement error	< 0.037 % of full scale - 200...850 °C Pt 100/Pt 1000 25 °C
Temperature coefficient	0.004 %FS/°C temperature probe
Non-linearity	0.001 %FS temperature probe
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	> 95 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

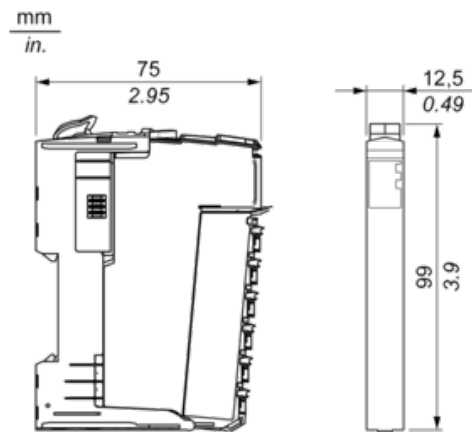
Standards	UL 508 CSA C22.2 No 142 IEC 61131-2 CSA C22.2 No 213
Product Certifications	GOST-R[RETURN]cULus[RETURN]C-tick[RETURN]CSA
Ambient air temperature for operation	32...131 °F (0...55 °C) without derating horizontal installation) 32...140 °F (0...60 °C) with derating factor horizontal installation) 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	2.95 in (7.500 cm)
Package 1 Width	3.54 in (9.000 cm)
Package 1 Length	4.33 in (11.000 cm)
Package 1 Weight	4.13 oz (117.000 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	10.39 lb(US) (4.715 kg)

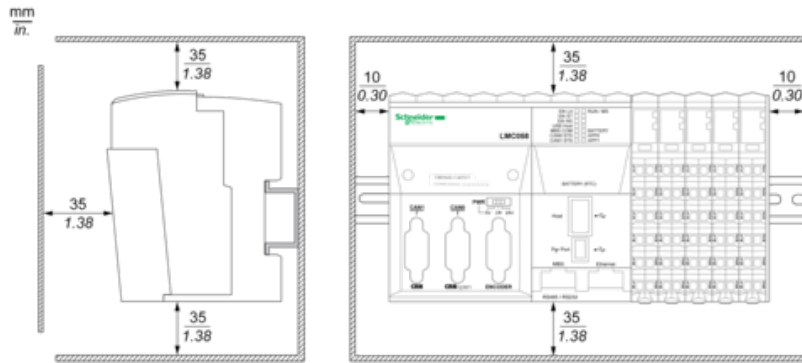
TM5 Slice

Dimensions

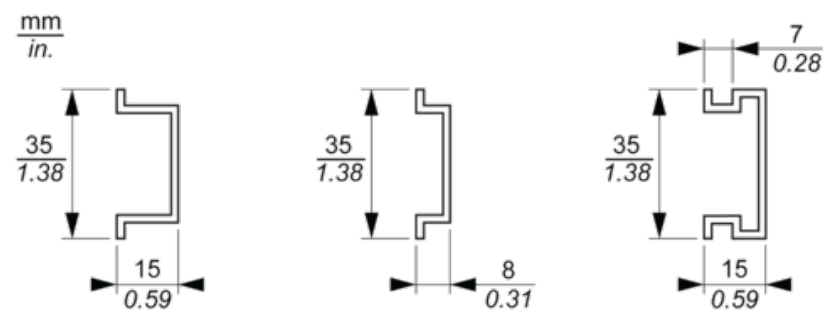


TM5 System

Spacing Requirements







Mounting on a DIN Rail



TM5 System Wiring Recommendations

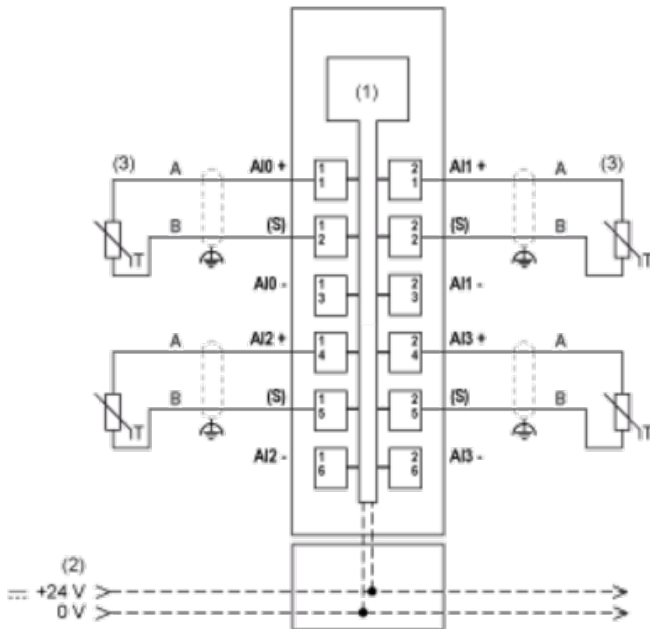
Wire Sizes to Use with the Removable Spring Terminal Blocks

$\frac{\text{mm}}{\text{in.}}$					
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 PT100/PT1000 16 Bits

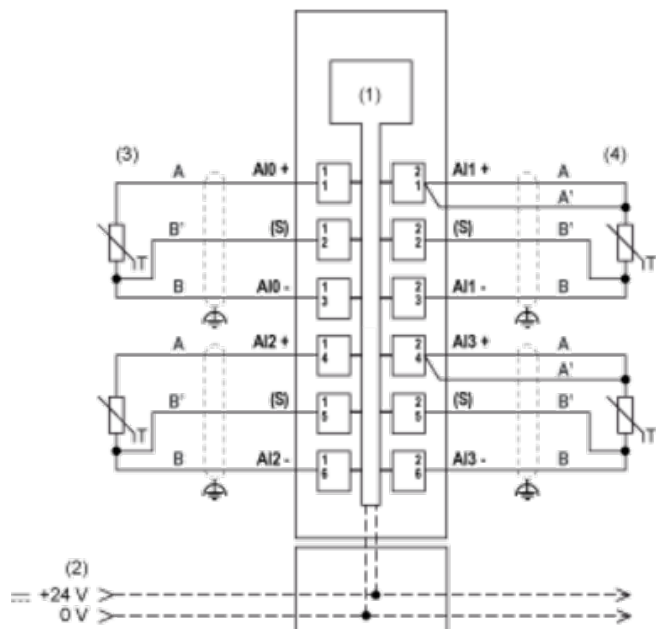
Wiring Diagrams

The following figure shows the 2-wire wiring diagram:



- (1) Internal electronics
- (2) 24 Vdc I/O power segment integrated into the bus bases
- (3) 2-wire sensor
- (S) Sensor

The following figure shows the 3-wire and 4-wire wiring diagram:



- (1) Internal electronics
- (2) 24 Vdc I/O power segment integrated into the bus bases
- (3) 3-wire sensor
- (4) 4-wire sensor
- (S) Sensor