

Product data sheet

Specifications



Analog output module, Modicon
TM5, Composition kit of I/
O(TM5SAO4L) + term.
block(TM5ACTB12) + bus
base(TM5ACBM11)

TM5SAO4LK

Main

Range Of Product	Modicon TM5
Product Or Component Type	Analog output module
Analogue Output Number	4
Analogue Output Resolution	12 bits + sign, +/- 10 V 12 bits, 0...20 mA

Complementary

Device Composition	Bus sub-base TM5ACBM11 Terminal block TM5ACTB12 I/O module TM5SAO4L
Range Compatibility	Modicon M258 Modicon LMC058
Product Compatibility	Motion controller Logic controller
Analogue Output Type	Current 0...20 mA Voltage +/- 10 V
Measurement Resolution	4.882 mV, +/- 10 V 9.766 µA, 0...20 mA
Colour	White
Response Time	<= 1 ms
Minimum Output Impedance	1 Ohm
Load Impedance Ohmic	200...500 Ohm (current)
Sampling Duration	300 µs
Measurement Error	< 0.08 % of full scale +/- 10 V +/- 10 V at 25 °C < 0.08 % of full scale 0...20 mA 0...20 mA at 25 °C
Temperature Coefficient	0.015 %FS/°C, analogue output type: current 0.015 %FS/°C, analogue output type: voltage
Non-Linearity	< 0.005 %FS, analogue output type: current < 0.005 %FS, analogue output type: voltage
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 %
Local Signalling	1 LED green for power supply 1 LED red for power supply 4 LEDs yellow for output status

Disclaimer: 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

Current Consumption	2 mA at 5 V DC bus 63 mA at 24 V DC input/output
Maximum Power Dissipation In W	1.51 W
Marking	CE
Net Weight	0.065 kg

Environment

Standards	CSA C22.2 No 213 CSA C22.2 No 142 UL 508 IEC 61131-2
Product Certifications	C-Tick cULus GOST-R CSA
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 Height	7.000 cm
Package 1 Width	9.000 cm
Package 1 Length	11.000 cm
Package 1 Weight	116.000 g
Unit Type Of Package 2	S03
Number Of Units In Package 2	36

Package 2 Height	30.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	4.643 kg

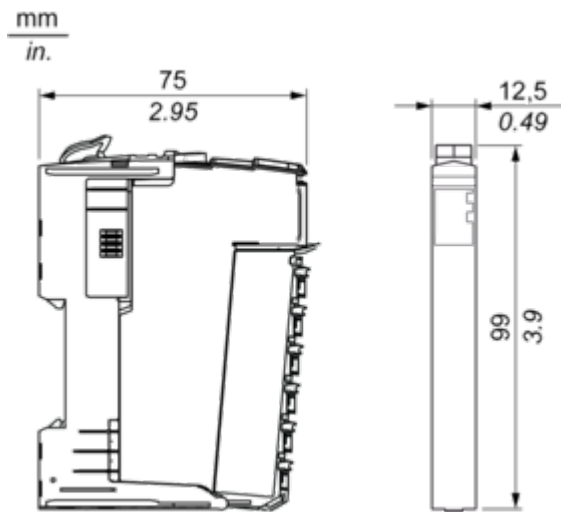
Contractual warranty

Warranty	18 months
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Dimensions Drawings

TM5 Slice

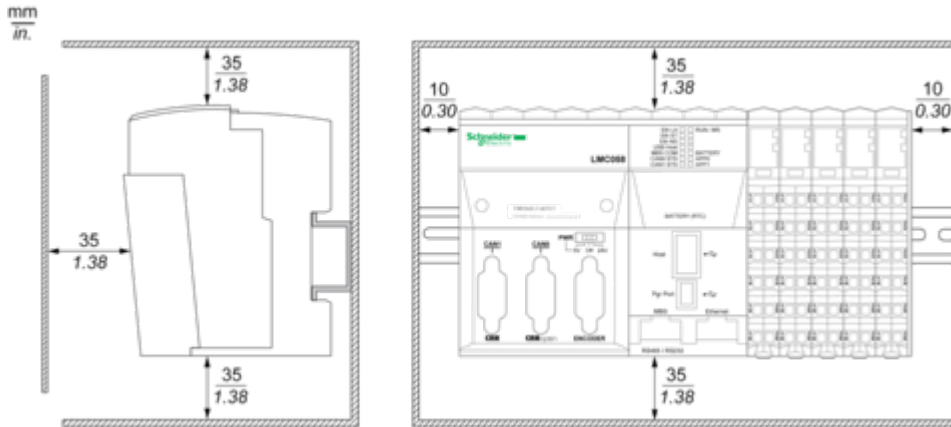
Dimensions



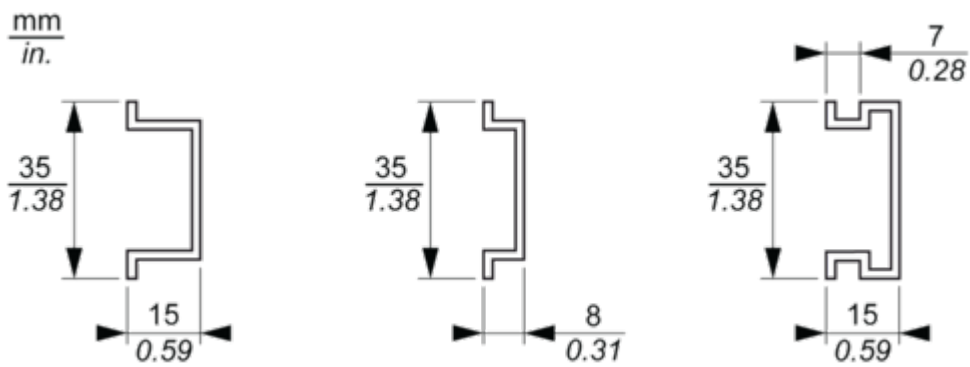
Mounting and Clearance

TM5 System

Spacing Requirements



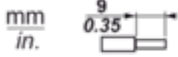
Mounting on a DIN Rail



Connections and Schema

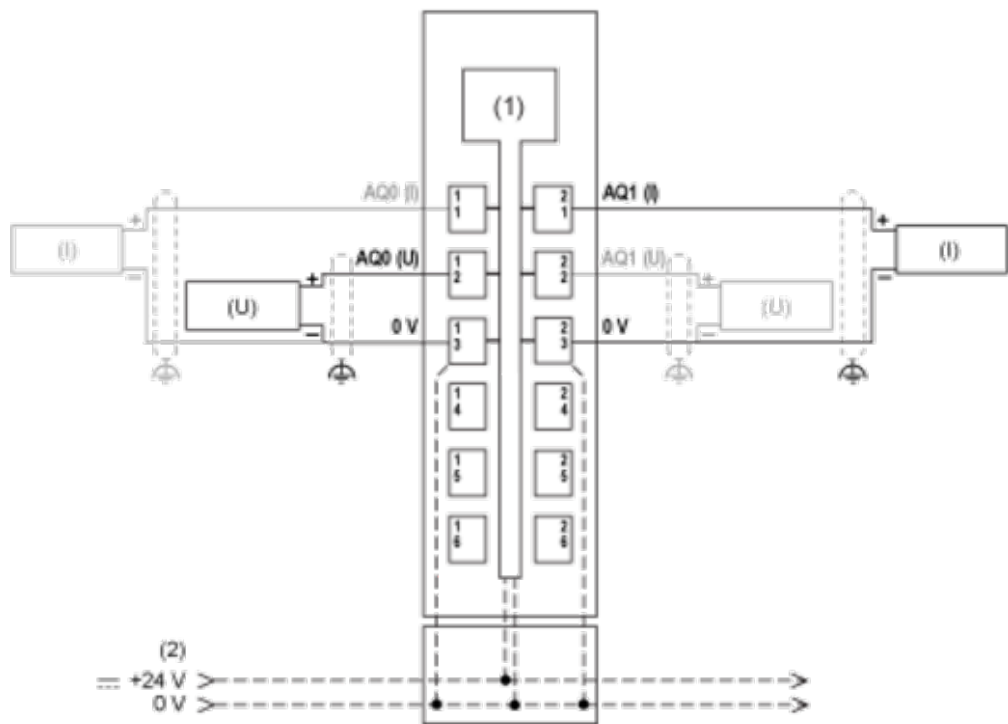
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

				
mm 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 2AO $\pm 10\text{V}/0\text{-}20\text{mA}$ 16 Bits

Wiring Diagram



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