

# Product data sheet

Specifications



## Analog output module, Modicon TM5, 4O, +/-10 V/0 to 20mA, 12bits

TM5SAO4L

**Product availability : Stock - Normally stocked in distribution facility**

### 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

Range Compatibility	Modicon LMC058 Modicon M258
Product Compatibility	Logic controller Motion controller
Analogue output type	Current 0...20 mA Voltage +/- 10 V
Measurement resolution	4.882 mV, +/- 10 V 9.766 µA, 0...20 mA
Color	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 25 °C < 0.08 % of full scale 0...20 mA 0...20 mA 25 °C
Temperature coefficient	0.015 %FS/°C current 0.015 %FS/°C voltage
Non-linearity	< 0.005 %FS current < 0.005 %FS voltage
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 -15...20 %
Local signalling	1 LED green power supply 1 LED red power supply 4 LEDs yellow output status
Current consumption	2 mA 5 V DC bus

63 mA 24 V DC input/output

<b>Maximum power dissipation in W</b>	1.51 W
<b>Marking</b>	CE
<b>Net Weight</b>	0.06 lb(US) (0.025 kg)

## Environment

<b>Standards</b>	IEC 61131-2 CSA C22.2 No 213 UL 508 CSA C22.2 No 142
<b>Product Certifications</b>	cULus GOST-R CSA C-tick
<b>Ambient air temperature for operation</b>	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)
<b>Ambient Air Temperature for Storage</b>	-13...158 °F (-25...70 °C)
<b>Relative humidity</b>	5...95 % without condensation
<b>IP degree of protection</b>	IP20IEC 61131-2
<b>Pollution degree</b>	2 IEC 60664
<b>Operating altitude</b>	0...6561.68 ft (0...2000 m)
<b>Storage altitude</b>	0.00...9842.52 ft (0...3000 m)
<b>Vibration resistance</b>	1 gn 8.4...150 Hz DIN rail 3.5 mm 5...8.4 Hz DIN rail
<b>Shock resistance</b>	15 gn 11 ms
<b>Resistance to electrostatic discharge</b>	4 kV on contact EN/IEC 61000-4-2 8 kV in air EN/IEC 61000-4-2
<b>Resistance to electromagnetic fields</b>	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
<b>Resistance to fast transients</b>	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)
<b>Surge withstand</b>	0.5 kV differential mode EN/IEC 61000-4-5 1 kV common mode EN/IEC 61000-4-5
<b>Electromagnetic compatibility</b>	EN/IEC 61000-4-6
<b>Disturbance radiated/ conducted</b>	CISPR 11

## Ordering and shipping details

<b>Category</b>	22532-M258 PLC
<b>Discount Schedule</b>	PC12
<b>GTIN</b>	3595864074818
<b>Returnability</b>	Yes
<b>Country of origin</b>	AT

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	0.79 in (2.0 cm)
<b>Package 1 Width</b>	2.36 in (6.0 cm)

<b>Package 1 Length</b>	4.33 in (11.0 cm)
<b>Package 1 Weight</b>	1.52 oz (43.0 g)
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	97
<b>Package 2 Height</b>	5.91 in (15.0 cm)
<b>Package 2 Width</b>	11.81 in (30.0 cm)
<b>Package 2 Length</b>	15.75 in (40.0 cm)
<b>Package 2 Weight</b>	9.86 lb(US) (4.471 kg)

## Offer Sustainability

<b>Sustainable offer status</b>	Green Premium product
<b>California proposition 65</b>	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a>
<b>REACH Regulation</b>	<a href="#">REACH Declaration</a>
<b>EU RoHS Directive</b>	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
<b>Toxic heavy metal free</b>	Yes
<b>Mercury free</b>	Yes
<b>China RoHS Regulation</b>	<a href="#">China RoHS declaration</a>
<b>RoHS exemption information</b>	<a href="#">Yes</a>
<b>Environmental Disclosure</b>	<a href="#">Product Environmental Profile</a>
<b>Circularity Profile</b>	<a href="#">End of Life Information</a>
<b>WEEE</b>	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.
<b>PVC free</b>	Yes

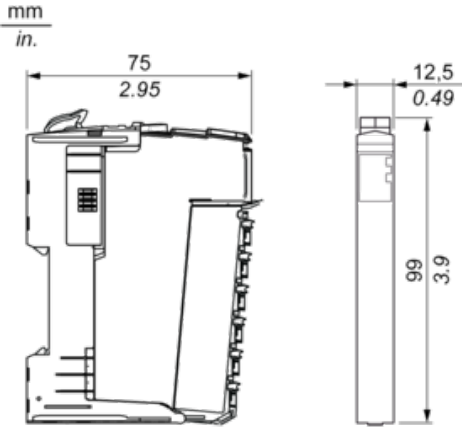
## Contractual warranty

<b>Warranty</b>	18 months
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**TM5 Slice**

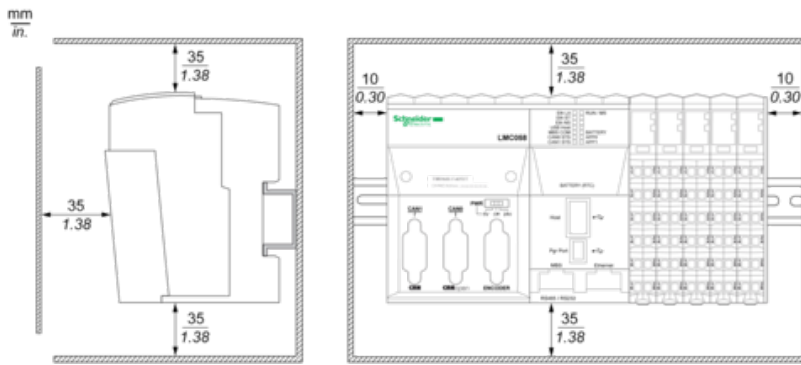
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**Dimensions**

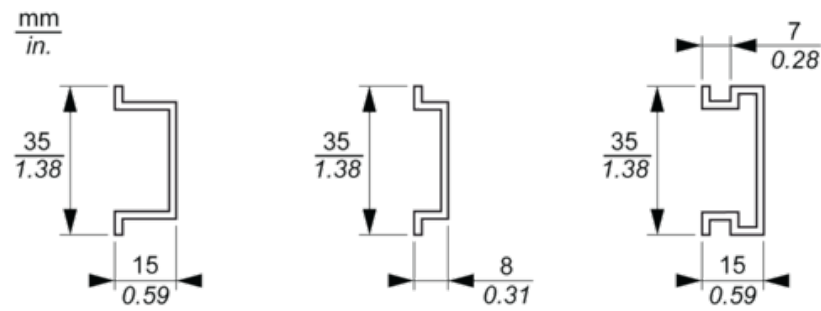


**TM5 System**

**Spacing Requirements**








**Mounting on a DIN Rail**



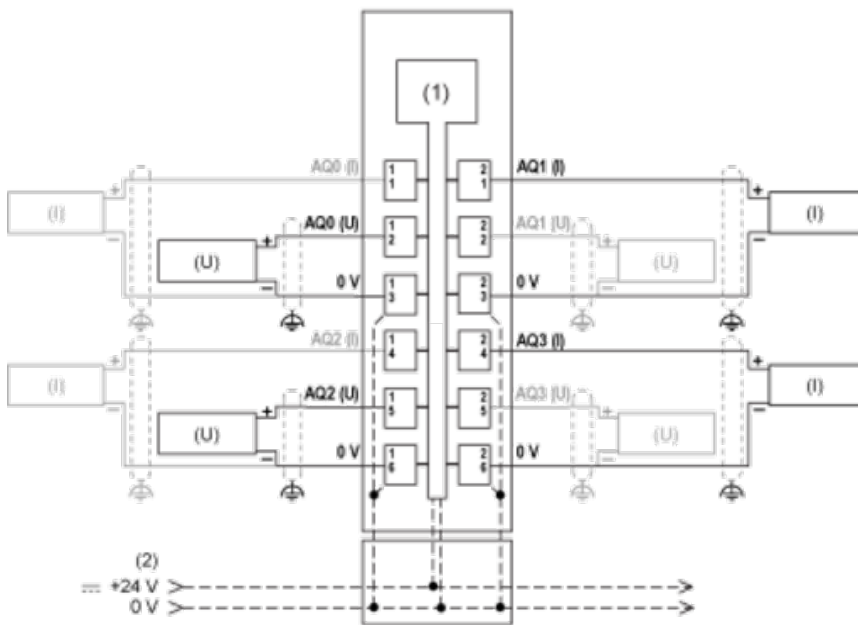
**TM5 System Wiring Recommendations**

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**Wire Sizes to Use with the Removable Spring Terminal Blocks**

 mm in.				
mm <sup>2</sup>	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

**Wiring Diagram**



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

**Recommended replacement(s)**