

# Product data sheet

Specifications



## analog output module, Modicon TM5, 2O, +/-10V, 0 to 20mA, 16bits

TM5SAO2H

**Product availability: Non-Stock - Not normally stocked in distribution facility**

### Main

Range of Product	Modicon TM5
Product or Component Type	Analog output module
Analogue output number	2
Analogue output resolution	15 bits + sign, +/- 10 V 15 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	305.176 $\mu$ V, +/- 10 V 610.352 nA, 0...20 mA
Color	White
Response Time	$\leq$ 1 ms
Minimum output impedance	1 Ohm
Sampling duration	50 ms
Measurement error	$<$ 0.045 % of full scale +/- 10 V 25 °C $<$ 0.045 % of full scale 0...20 mA 25 °C
Temperature coefficient	0.015 %FS/°C current 0.015 %FS/°C voltage
Non-linearity	$<$ 0.007 %FS/°C current $<$ 0.007 %FS/°C 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 power supply 1 LED red power supply 2 LEDs yellow output status
Current consumption	2 mA 5 V DC bus 50 mA 24 V DC input/output
Maximum power dissipation in W	1.21 W
Marking	CE

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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Net Weight	0.055 lb(US) (0.025 kg)
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## Environment

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Standards	CSA C22.2 No 213 UL 508 CSA C22.2 No 142 IEC 61131-2
Product Certifications	cULus C-tick GOST-R 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...9842.5 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 IEC 61000-4-2 8 kV in air IEC 61000-4-2
Resistance to electromagnetic fields	0.9 V/m (1 V/m) 2...2.7 GHz IEC 61000-4-3 9.1 V/m (10 V/m) 80...2000 MHz IEC 61000-4-3
Resistance to fast transients	1 kV IEC 61000-4-4 I/O) 1 kV IEC 61000-4-4 shielded cable) 2 kV IEC 61000-4-4 power lines)
Surge withstand	0.5 kV differential mode IEC 61000-4-5 1 kV common mode IEC 61000-4-5
Electromagnetic compatibility	EN/IEC 61000-4-6
Disturbance radiated/conducted	CISPR 11

## Ordering and shipping details

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Category	US1PC1222532
Discount Schedule	PC12
GTIN	3595864074801
Returnability	No
Country of origin	AT

## Packing Units

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Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	0.7 in (1.9 cm)
Package 1 Width	2.3 in (5.9 cm)
Package 1 Length	4.09 in (10.4 cm)

<b>Package weight(Lbs)</b>	1.3 oz (38 g)
<b>Unit Type of Package 2</b>	S02
<b>Number of Units in Package 2</b>	42
<b>Package 2 Height</b>	5.9 in (15 cm)
<b>Package 2 Width</b>	11.8 in (30 cm)
<b>Package 2 Length</b>	15.7 in (40 cm)
<b>Package 2 Weight</b>	4.30 lb(US) (1.95 kg)

## Contractual warranty

<b>Warranty</b>	18 months
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

[Environmental Disclosure](#)

[Product Environmental Profile](#)

## Use Better

### Materials and Substances

Packaging made with recycled cardboard

No

Packaging without single use plastic

Yes

[EU RoHS Directive](#)

Pro-active compliance (Product out of EU RoHS legal scope)

REACH Regulation

[REACH Declaration](#)

California proposition 65

**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 [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

PVC free

Yes

## Use Again

### Repack and remanufacture

[Circularity Profile](#)

[End of Life Information](#)

Take-back

No

WEEE Label

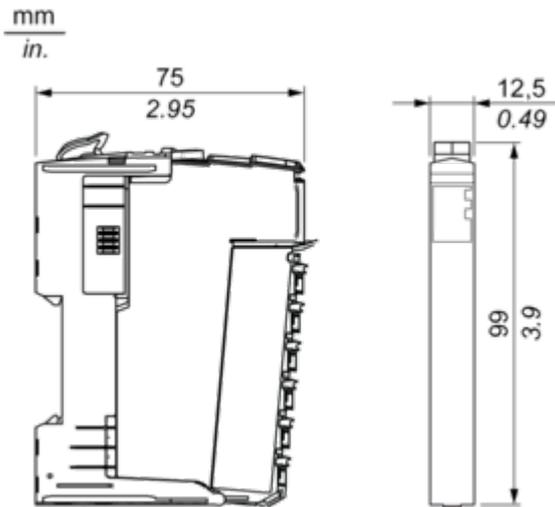
 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

Dimensions Drawings

TM5 Slice

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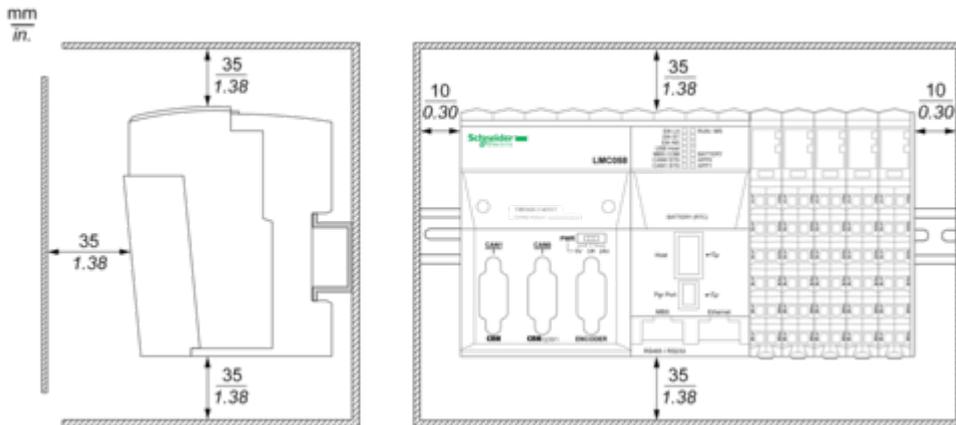
Dimensions



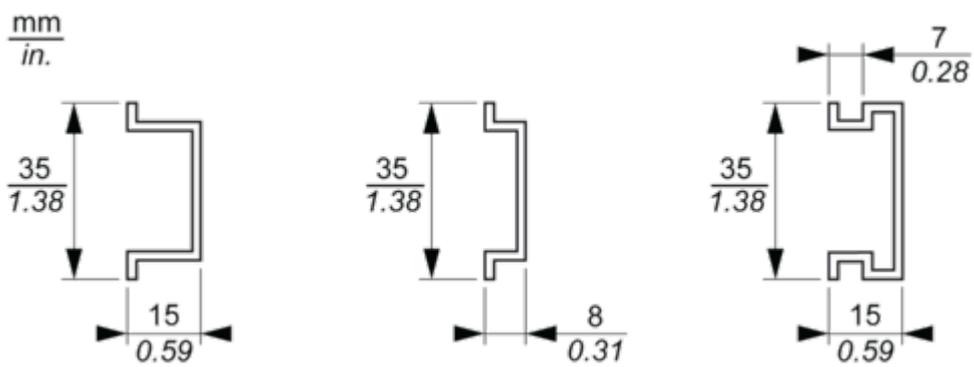
Mounting and Clearance

TM5 System

Spacing Requirements



Mounting on a DIN Rail



Connections and Schema

**TM5 System Wiring Recommendations**

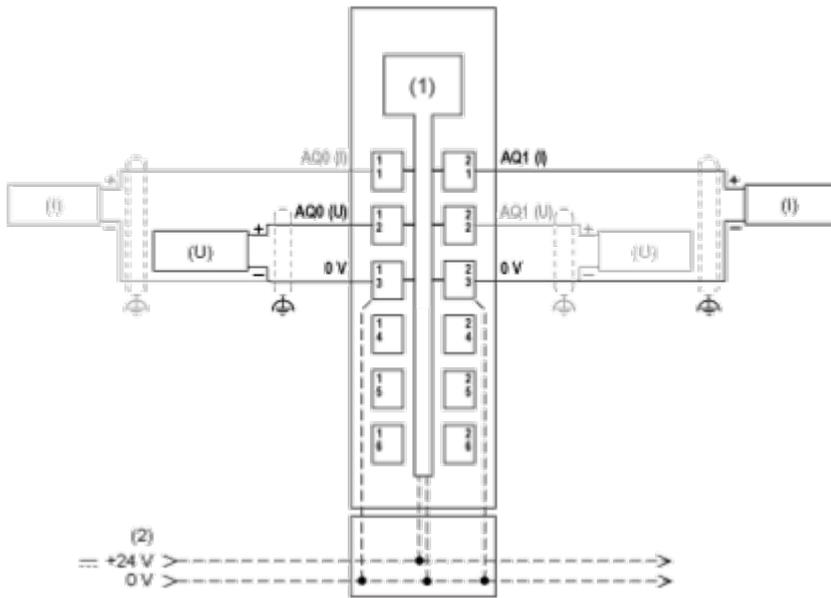
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**Wire Sizes to Use with the Removable Spring Terminal Blocks**

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

Electronic Module 2AO  $\pm 10V/0-20mA$  16 Bits

Wiring Diagram



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