

Product data sheet

Specifications



Mixed I/O module, Modicon TM5, module

TM5SMM6D2L

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

Main

Range of Product	Modicon TM5
Product or Component Type	Mixed I/O module
Product Compatibility	Motion controller Logic controller
Range Compatibility	Modicon LMC058 Modicon M258
Discrete input number	4
Discrete output number	2
Analogue input number	1
Analogue output number	1

Complementary

Discrete input voltage	24 V DC 20.4...28.8 V)
Discrete input logic	Sink
Discrete input current	3.3 mA
Voltage state 0 guaranteed	<= 5 V
Voltage state 1 guaranteed	>= 15 V
Input filtering	<= 2 µs hardware 1 ms by default <= 25 ms configurable by software
Analogue input type	Voltage +/- 10 V Current 0...20 mA/4...20 mA
Analogue input resolution	12 bits + sign voltage 12 bits current
Common mode rejection	70 dB DC analog input 70 dB 50 Hz analog input
Output voltage	24 V DC
Input voltage limits	20.4...28.8 V
Discrete output logic	Source
Discrete output current	<= 0.5 A per output <= 1 A
Peak output current	14 A
Maximum leakage current	5 µA when switched off) digital output
Switching frequency	100 Hz, resistive digital output
Analogue output type	Voltage +/- 10 V Current 0...20 mA

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

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

Conversion time	300 µs analog output
Analogue output resolution	12 bits + sign, +/- 10 V 12 bits, 0...20 mA
Measurement resolution	2.441 mV, +/- 10 V, +/- 10 V 4.883 µA, 0...20 mA/4...20 mA, 0...20 mA
Color	White
Response time	<= 250 µs from state 0 to state 1 digital output <= 250 µs from state 1 to state 0 digital output 1 ms analog output
Input impedance	7.18 kOhm digital >= 1 MOhm analog, +/- 10 V
Minimum output impedance	1 kOhm +/- 10 V 32...131 °F (0...55 °C) 10 kOhm +/- 10 V 131...140 °F (55...60 °C)
Load impedance ohmic	<= 400 Ohm0...20 mA) 32...131 °F (0...55 °C) <= 300 Ohm0...20 mA) 131...140 °F (55...60 °C) <= 300 Ohm 0...20 mA/4...20 mA)
Sampling duration	300 µs analog input
Measurement error	< 0.08 % of full scale +/- 10 V) 25 °C < 0.08 % of full scale 0...20 mA/4...20 mA) 25 °C < 0.15 % of full scale +/- 10 V) 25 °C < 0.15 % of full scale0...20 mA) 25 °C
Temperature coefficient	+/- 0.009 %FS/°C 0...20 mA/4...20 mA) +/-0.006 %FS/°C +/- 10 V) +/- 0.02 %FS/°C0...20 mA) +/- 0.02 %FS/°C +/- 10 V)
Non-linearity	+/- 0.02 %FS 0...20 mA/4...20 mA) +/- 0.02 %FS +/- 10 V) +/- 0.1 %FS0...20 mA) +/- 0.1 %FS +/- 10 V)
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 (ON) 1 LED (red) for power supply (OFF) 4 LEDs (green) for digital input status 2 LEDs (orange) for digital output status 1 LED (orange) 1 LED (green)
Wiring mode	1 wire digital input/output
Current consumption	2 mA 5 V DC bus 73 mA 24 V DC inputs/outputs
Maximum power dissipation in W	1.75 W
Height	3.9 in (99 mm)
Width	0.5 in (12.5 mm)
Depth	3.0 in (75 mm)
Protection type	Against reverse polarity digital output Against short-circuits digital output Thermal overload protection digital output Against short-circuits analog output

Environment

IP Degree of Protection	IP20
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Marking	CE
Product certifications	C-tick CSA CULus GOST-R
Standards	IEC 61131-2 CSA C22.2 No 142 UL 508 CSA C22.2 No 213
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Ambient air temperature for operation	32...131 °F (0...55 °C) without derating horizontal installation) 131...140 °F (55...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
Operating altitude	0...6561.68 ft (0...2000 m)
Pollution degree	2
Vibration resistance	1 gn 8.4...150 Hz) on DIN rail 3.5 mm 5...8.4 Hz) on DIN rail
Shock resistance	15 gn 11 ms

Ordering and shipping details

Category	US1PC1222532
Discount Schedule	PC12
GTIN	3595864082073
Returnability	No
Country of origin	AT

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	0.787 in (2.000 cm)
Package 1 Width	2.362 in (6.000 cm)
Package 1 Length	4.134 in (10.500 cm)
Package weight(Lbs)	1.517 oz (43.000 g)
Unit Type of Package 2	S02
Number of Units in Package 2	97
Package 2 Height	5.906 in (15.000 cm)
Package 2 Width	11.811 in (30.000 cm)
Package 2 Length	15.748 in (40.000 cm)
Package 2 Weight	9.965 lb(US) (4.520 kg)

Contractual warranty

Warranty (in months)	18
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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

Total lifecycle Carbon footprint	72 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	1 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	71 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.1 kg CO2 eq.
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	Compliant By Exemption
REACH Regulation	Free of Substances of Very High Concern above the threshold
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
PVC free	Yes

Use Longer



Lifetime extension

Repair	No
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Use Again



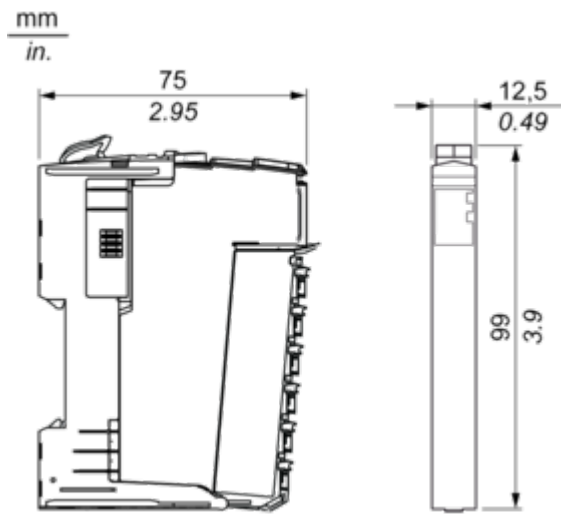
Repack and remanufacture

Recyclability potential, in %	0
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

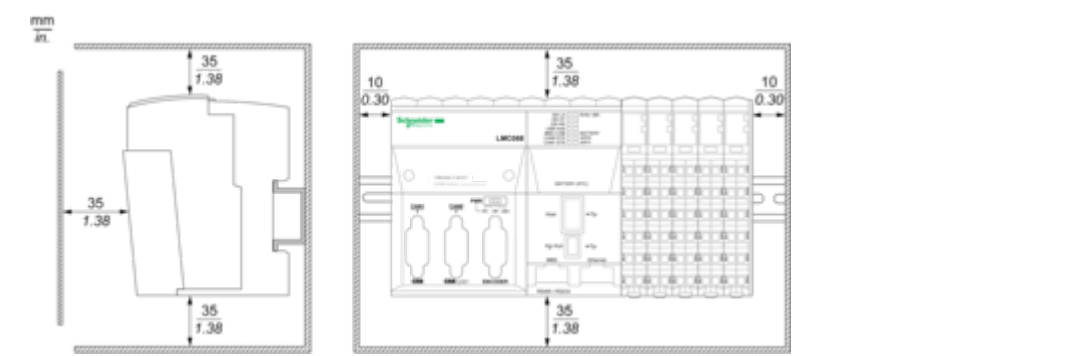
Dimensions



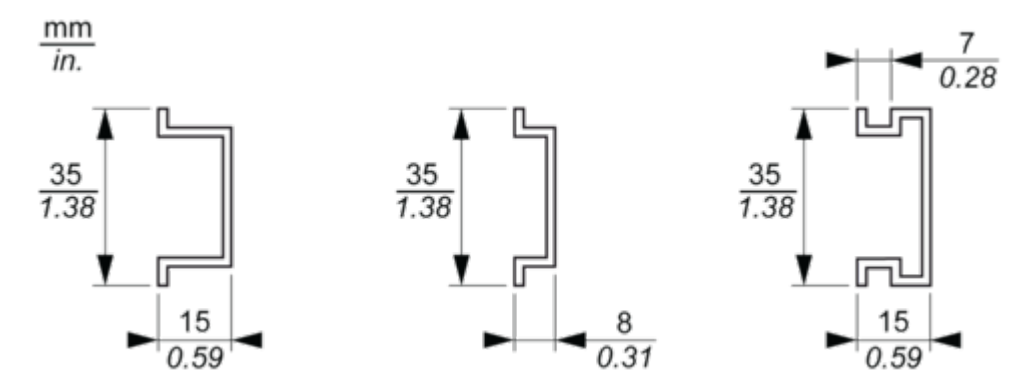
Mounting and Clearance

TM5 System

Spacing Requirements



Mounting on a DIN Rail



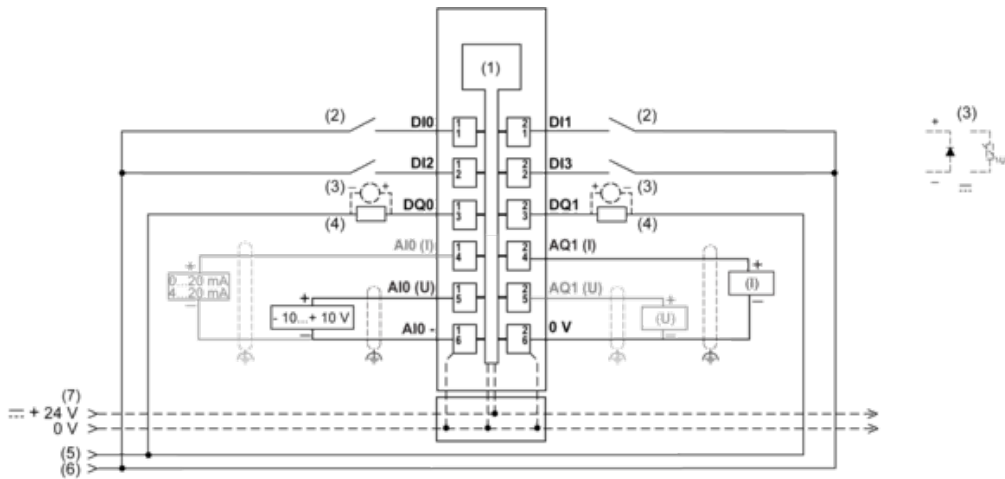
Connections and Schema

TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm in. 9 0.35				
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

Wiring Diagram



- 1 internal electronics
- 2 2-wire sensor
- 3 inductive load protection
- 4 2-wire load
- 5 0 Vdc I/O power segment by external connection
- 6 24 Vdc I/O power segment by external connection
- 7 24 Vdc I/O power segment integrated into the bus bases
- I current
- U voltage