Product data sheet
Characteristics

TM5SMM6D2L
Mixed I/O module, Modicon TM5, module

Main

Range of Product	Modicon TM5
Product or Component Type	Mixed I/O module
Range Compatibility	Modicon LMC058 Modicon M258
Product Compatibility	Motion controller Logic controller

Complementary

Discrete input number	4
Discrete input voltage	24 V
Discrete input voltage type	DC
Input voltage limits	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 number	1
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
Discrete output number	2
Discrete output type	Transistor
Output voltage	24 V DC
Output 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 number	1
Analogue output type	Voltage +/- 10 V Current 0...20 mA
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	For power supply (ON) 1 LED (green) For power supply (OFF) 1 LED (red) For digital input status 4 LEDs (green) For digital output status 2 LEDs (orange) 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
Protection type	Against reverse polarity digital output Against short-circuits digital output Thermal overload protection digital output Against short-circuits analog output
Marking	CE
Net Weight	0.06 lb(US) (0.025 kg)

Environment

Standards	IEC 61131-2 CSA C22.2 No 142 UL 508 CSA C22.2 No 213
Product Certifications	C-tick CSA CULus GOST-R
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
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

Ordering and shipping details

Category	22532-M258 PLC
Discount Schedule	PC12
GTIN	3595864082073
Nbr. of units in pkg.	1
Package weight(Lbs)	1.52 oz (43.0 g)
Returnability	No
Country of origin	AT

Packing Units

Unit Type of Package 1	PCE
Package 1 Height	0.79 in (2 cm)
Package 1 width	2.36 in (6 cm)
Package 1 Length	4.13 in (10.5 cm)

Offer Sustainability

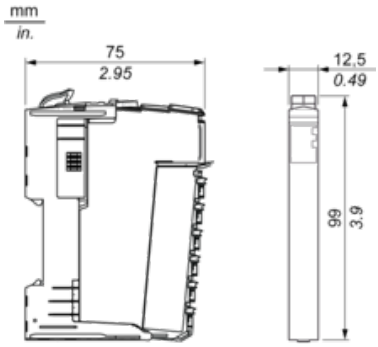
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds which is known to the State of California to cause Carcinogen & Reproductive harm. For more information go to www.p65warnings.ca.gov

Contractual warranty

Warranty	18 months

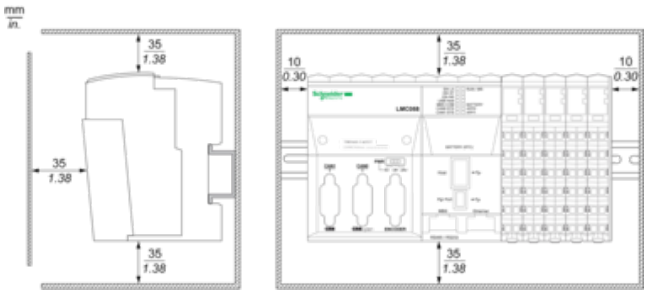
TM5 Slice

Dimensions

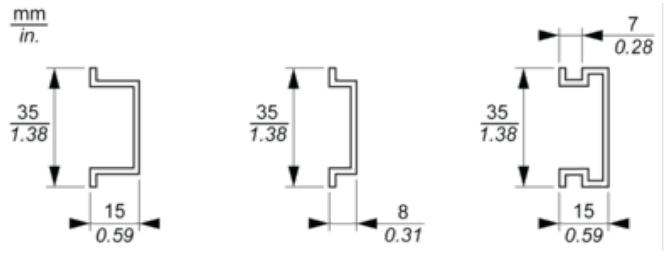


TM5 System

Spacing Requirements



Mounting on a DIN Rail

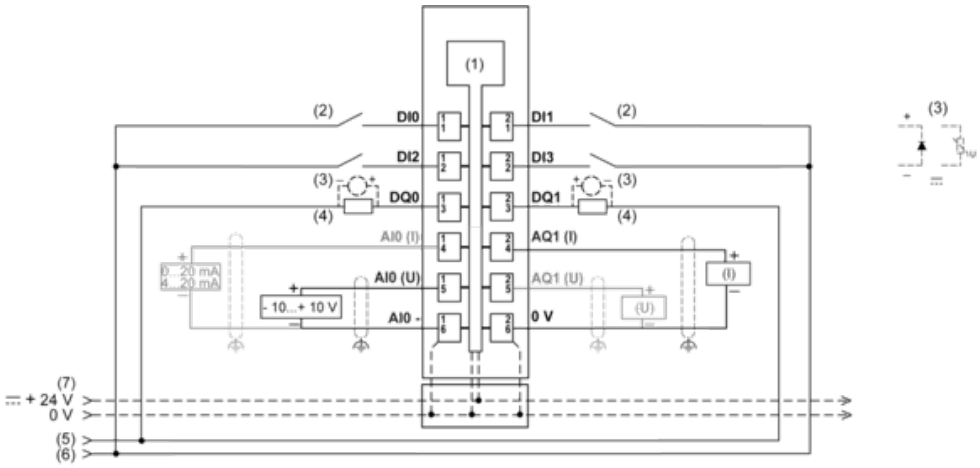


TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm / in. (9 / 0.35)				
mm²	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