Product datasheet
Characteristics

TM5SAO2L
analog output module - 2O - +/-10 V/0..20 mA - 12 bits

Main

Range of product	Modicon TM5
Product or component type	Analog output module
Analogue output number	2
Analogue output resolution	12 bits 0...20 mA 12 bits + sign +/- 10 V

Complementary

Range compatibility	Modicon LMC058 Modicon M258
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
Output impedance	>= 1 Ohm
Load impedance ohmic	<= 500 Ohm (current)
Sampling duration	200 µs
Measurement error	< 0.15 % of full scale, +/- 10 V at 25 °C < 0.15 % of full scale, 0...20 mA at 25 °C
Temperature coefficient	0.02 %FS/°C, analogue output type: current 0.02 %FS/°C, analogue output type: voltage
Non-linearity	< 0.007 %FS, analogue output type: current < 0.007 %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 2 LEDs yellow for output status
Current consumption	2 mA 5 V DC bus 46 mA 24 V DC input/output
Power dissipation in W	<= 1.11 W
Marking	CE
Product weight	0.025 kg

Environment

standards	CSA C22.2 No 142 IEC 61131-2 UL 508 CSA C22.2 No 213
product certifications	CSA

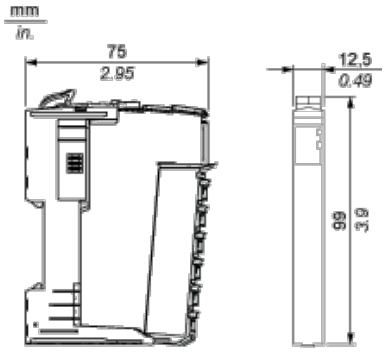
	C-Tick CULus GOST-R
ambient air temperature for operation	0...50 °C (vertical installation) 0...55 °C without derating factor (horizontal installation) 0...60 °C with derating factor (horizontal installation)
ambient air temperature for storage	-25...70 °C
relative humidity	5...95 % without condensation
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 (f= 8.4...150 Hz) DIN rail 3.5 mm (f= 5...8.4 Hz) 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

Offer Sustainability

Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1039 - Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available

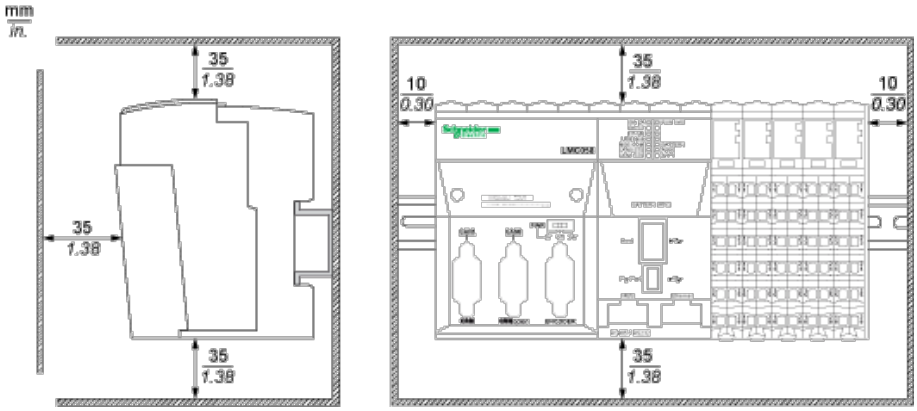
TM5 Slice

Dimensions

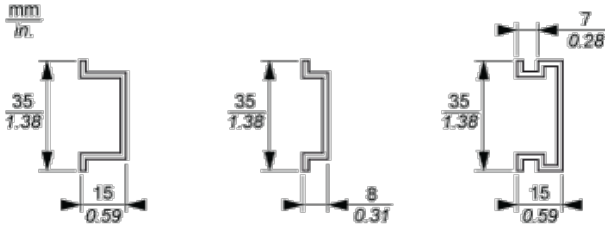


TM5 System

Spacing Requirements



Mounting on a DIN Rail



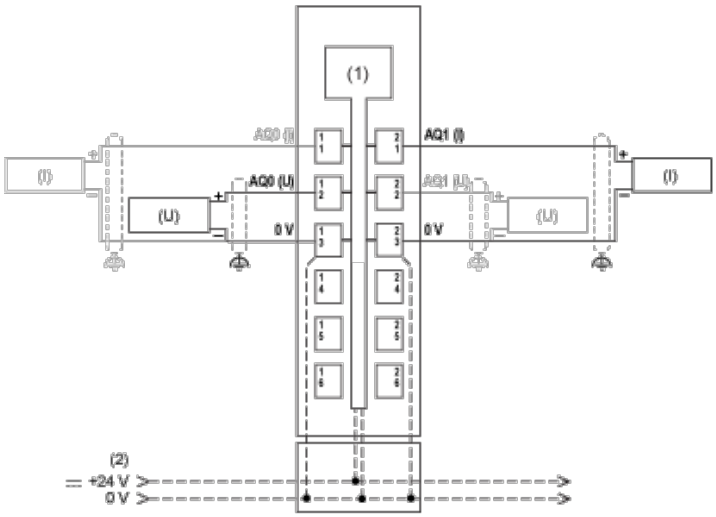
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm / in.				
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

Electronic Module 2AO ±10V/0-20mA 12 Bits

Wiring Diagram



(1) Internal electronics

(2) 24 Vdc I/O power segment integrated into the bus bases

(I) Current

(U) Voltage