

Product data sheet

Specifications



Discrete output module,
Modicon TM5, Composition kit
of I/O(TM5SDO12T) + term.
block(TM5ACTB12) + bus
base(TM5ACBM11)

TM5SDO12TK

Main

Range of product	Modicon TM5
Product or component type	Discrete output module
Discrete output number	12
Discrete output type	Transistor
Output voltage	24 V DC

Complementary

Device composition	Bus sub-base TM5ACBM11 Terminal block TM5ACTB12 I/O module TM5SDO12T
Range compatibility	Modicon M258 Modicon LMC058
Product compatibility	Logic controller Motion controller
Output voltage limits	20.4...28.8 V
Discrete output logic	Source
Current per channel	0.5 A
Maximum current per output common	6 A
Colour	White
Peak output current	12 A
Switching frequency	<= 500 Hz resistive load
Response time	<= 300 µs from state 0 to state 1 for output <= 300 µs from state 1 to state 0 for output
Maximum leakage current	5 µA when switched off
Short-circuit protection	With
Overload protection	With
Reverse polarity protection	With
Isolation	No insulation between channels 500 Vrms AC insulation between channel and bus
Maximum voltage drop	<0.3 V at 500 mA for output <2 V at 500 mA for sensor supply

Maximum supply current for sensors	500 mA
Current consumption	48 mA at 5 V DC bus 52 mA at 24 V DC input/output
Maximum power dissipation in W	2.04 W
Local signalling	1 LED green for power supply 1 LED red for power supply 12 LEDs yellow for output status
Electrical connection	1 wire
Marking	CE
Net weight	0.065 kg

Environment

Standards	CSA C22.2 No 213 UL 508 CSA C22.2 No 142 IEC 61131-2
Product certifications	cULus C-Tick CSA GOST-R
Ambient air temperature for operation	0...55 °C without derating (horizontal installation) 0...60 °C with derating factor (horizontal installation) 0...50 °C (vertical 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 at 8.4...150 Hz on DIN rail 3.5 mm at 5...8.4 Hz on 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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	7.0 cm
Package 1 Width	9.0 cm
Package 1 Length	11.0 cm
Package 1 Weight	118.0 g

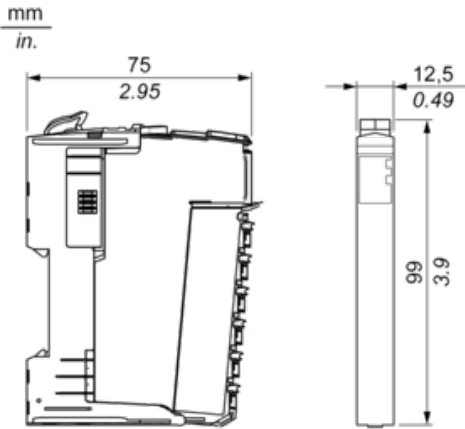
Unit Type of Package 2	S03
Number of Units in Package 2	36
Package 2 Height	30.0 cm
Package 2 Width	30.0 cm
Package 2 Length	40.0 cm
Package 2 Weight	4.689 kg

Contractual warranty

Warranty	18 months
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TM5 Slice

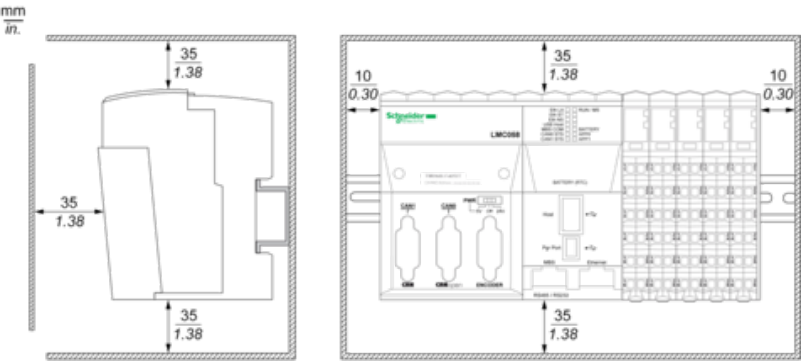
Dimensions



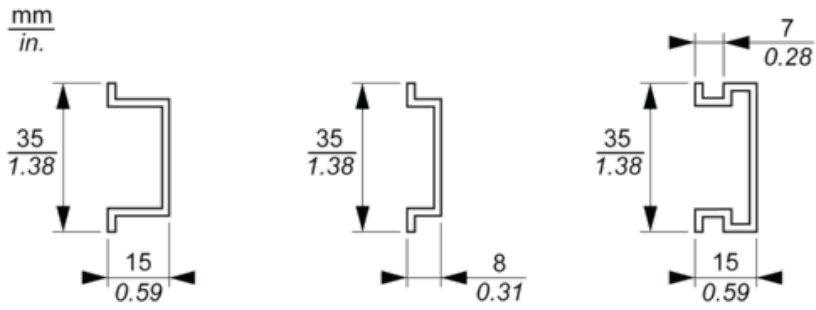
Product data sheet **TM5SDO12TK**

TM5 System

Spacing Requirements



Mounting on a DIN Rail



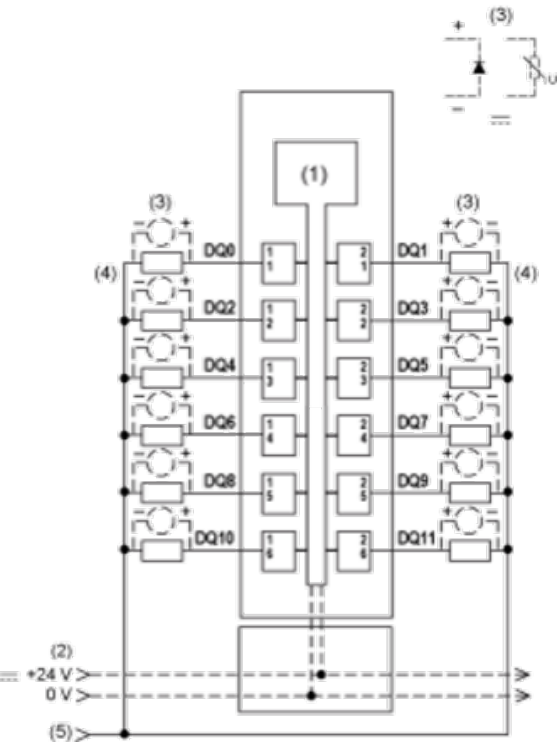
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm in. 9 0.35 				
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

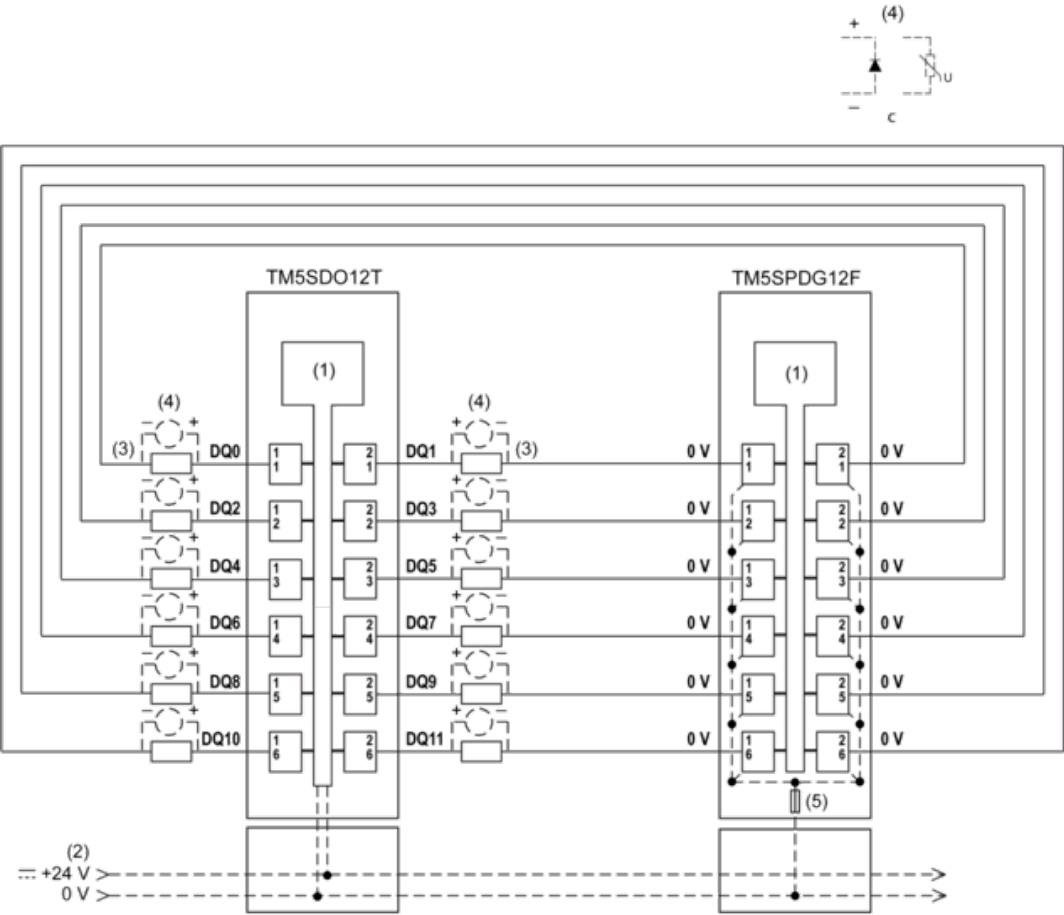
Electronic Module 12DO 24 Vdc Tr 0.5 A 1 Wire

Wiring Diagrams



- (1) Internal electronics
- (2) 24 Vdc I/O power segment integrated into the bus bases
- (3) Inductive load protection
- (4) 2-wire load
- (5) 0 Vdc I/O power segment by external connection

To connect 2-wire devices, you can add a TM5SPDG12F Common Distribution module:



- (1) Internal electronics
- (2) 24 Vdc I/O power segment integrated into the bus bases
- (3) 2-wire load
- (4) Inductive load protection
- (5) Integrated fuse type T slow-blow 6.3 A 250 V exchangeable

Recommended replacement(s)