

TM5SDO12TK

discrete output module kit, Modicon TM5,
TM5SDO12T with term. block TM5ACTB12
with bus base TM5ACBM11



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
Color	White
Peak output current	12 A
Switching frequency	<= 500 Hz resistive
Response time	<= 300 µs from state 0 to state 1 output <= 300 µs from state 1 to state 0 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 output <2 V at 500 mA sensor supply
Maximum supply current for sensors	500 mA
Current consumption	48 mA 5 V DC bus 52 mA 24 V DC input/output
Maximum power dissipation in W	2.04 W
Local signalling	1 LED green power supply 1 LED red power supply 12 LEDs yellow output status
Electrical connection	1 wire
Marking	CE
Net Weight	0.14 lb(US) (0.065 kg)

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Environment

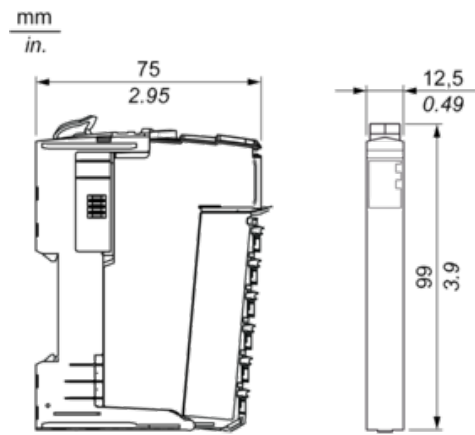
Standards	CSA C22.2 No 213 UL 508 CSA C22.2 No 142 IEC 61131-2
Product Certifications	cULus[RETURN]C-tick[RETURN]CSA[RETURN]GOST-R
Ambient air temperature for operation	32...131 °F (0...55 °C) without derating horizontal installation) 32...140 °F (0...60 °C) with derating factor horizontal installation) 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	0.00...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 IEC 61000-4-2 8 kV in air IEC 61000-4-2
Resistance to electromagnetic fields	0.91 V/m (1 V/m) 2...2.7 GHz IEC 61000-4-3 9.14 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

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.76 in (7.0 cm)
Package 1 Width	3.54 in (9.0 cm)
Package 1 Length	4.33 in (11.0 cm)
Package 1 Weight	4.16 oz (118.0 g)
Unit Type of Package 2	S03
Number of Units in Package 2	36
Package 2 Height	11.81 in (30.0 cm)
Package 2 Width	11.81 in (30.0 cm)
Package 2 Length	15.75 in (40.0 cm)
Package 2 Weight	10.34 lb(US) (4.689 kg)

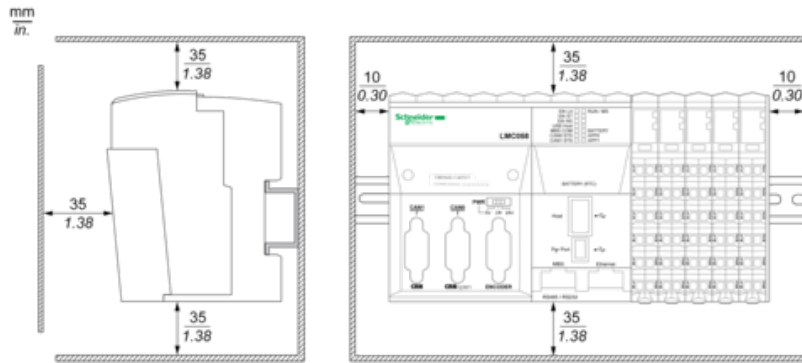
TM5 Slice

Dimensions

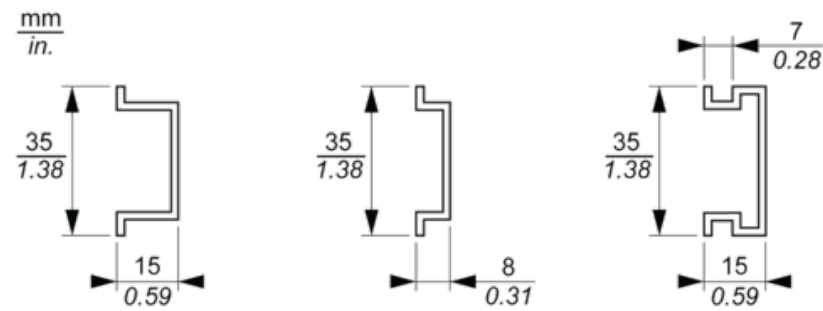


TM5 System

Spacing Requirements







Mounting on a DIN Rail



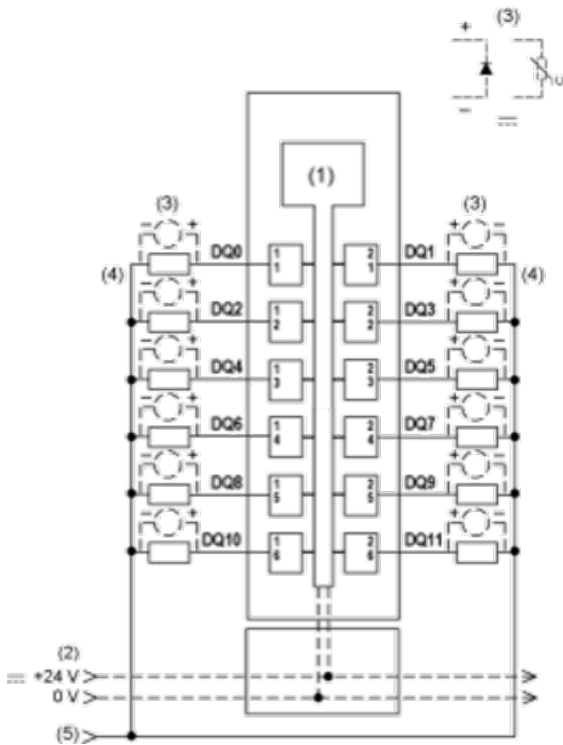
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

$\frac{\text{mm}}{\text{in.}}$				
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

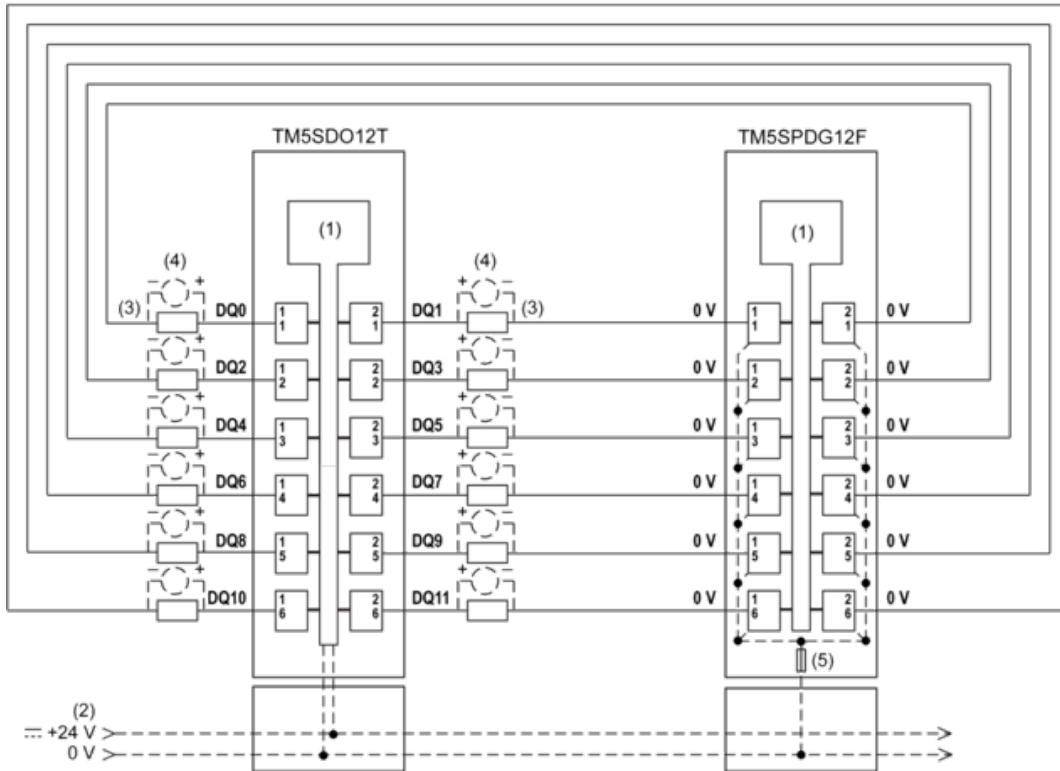
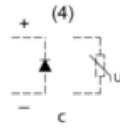
Electronic Module 12DO 24 Vdc Tr 0.5 A 1 Wire

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