

# TM5SDI12DK

discrete input module kit, Modicon TM5,  
TM5SDI12D with term. block TM5ACTB12 with  
bus base TM5ACBM11



## Main

Range of Product	Modicon TM5
Product or Component Type	Discrete input module
Discrete input number	12
Discrete input voltage	24 V

## Complementary

Device composition	Bus sub-base TM5ACBM11 Terminal block TM5ACTB12 I/O module TM5SDI12D
Range Compatibility	Modicon LMC058 Modicon M258
Product Compatibility	Motion controller Logic controller
Discrete input voltage type	DC
Input voltage limits	20.4...28.8 V
Discrete input logic	Sink
Discrete input current	3.75 mA
Input impedance	6.4 kOhm
Color	White
Voltage state 0 guaranteed	$\leq 5$ V
Voltage state 1 guaranteed	$\geq 15$ V
Input filtering	$\leq 25$ ms configurable by software $\leq 100$ ms hardware
Isolation	500 Vrms AC insulation between channel and bus No insulation between channels
Current consumption	36 mA 5 V DC bus 73 mA 24 V DC all inputs On
Maximum power dissipation in W	1.93 W
Local signalling	1 LED green power supply 1 LED red power supply 12 LEDs green input 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 IEC 61131-2 CSA C22.2 No 142
Product Certifications	CSA[RETURN]C-tick[RETURN]GOST-R[RETURN]cULus
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

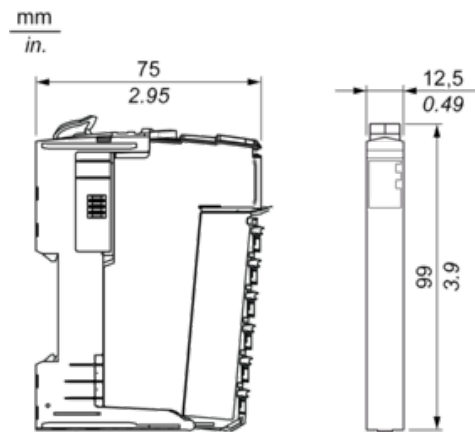
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.80 in (7.100 cm)
Package 1 Width	3.58 in (9.100 cm)
Package 1 Length	4.33 in (11.000 cm)
Package 1 Weight	3.99 oz (113.000 g)
Unit Type of Package 2	S03
Number of Units in Package 2	36
Package 2 Height	11.81 in (30.000 cm)
Package 2 Width	11.81 in (30.000 cm)
Package 2 Length	15.75 in (40.000 cm)
Package 2 Weight	9.99 lb(US) (4.532 kg)

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TM5 Slice

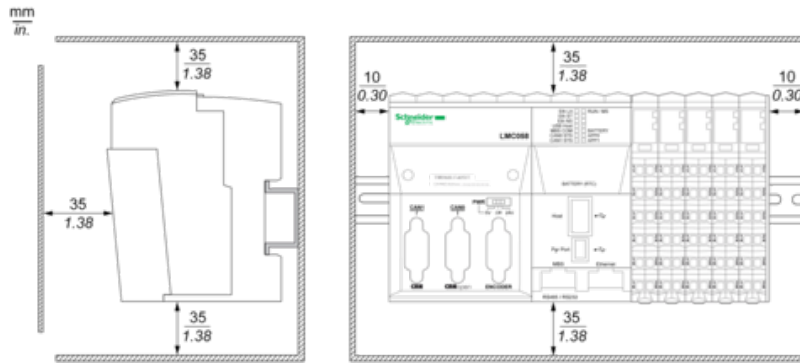
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Dimensions

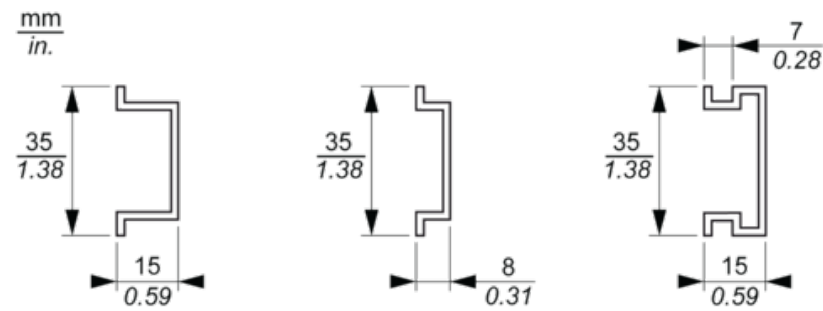


TM5 System

Spacing Requirements








Mounting on a DIN Rail



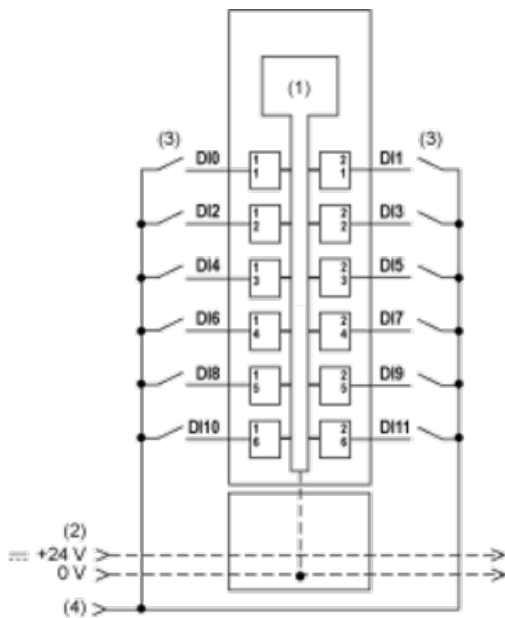
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

$\frac{\text{mm}}{\text{in.}}$ 				
mm <sup>2</sup>	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

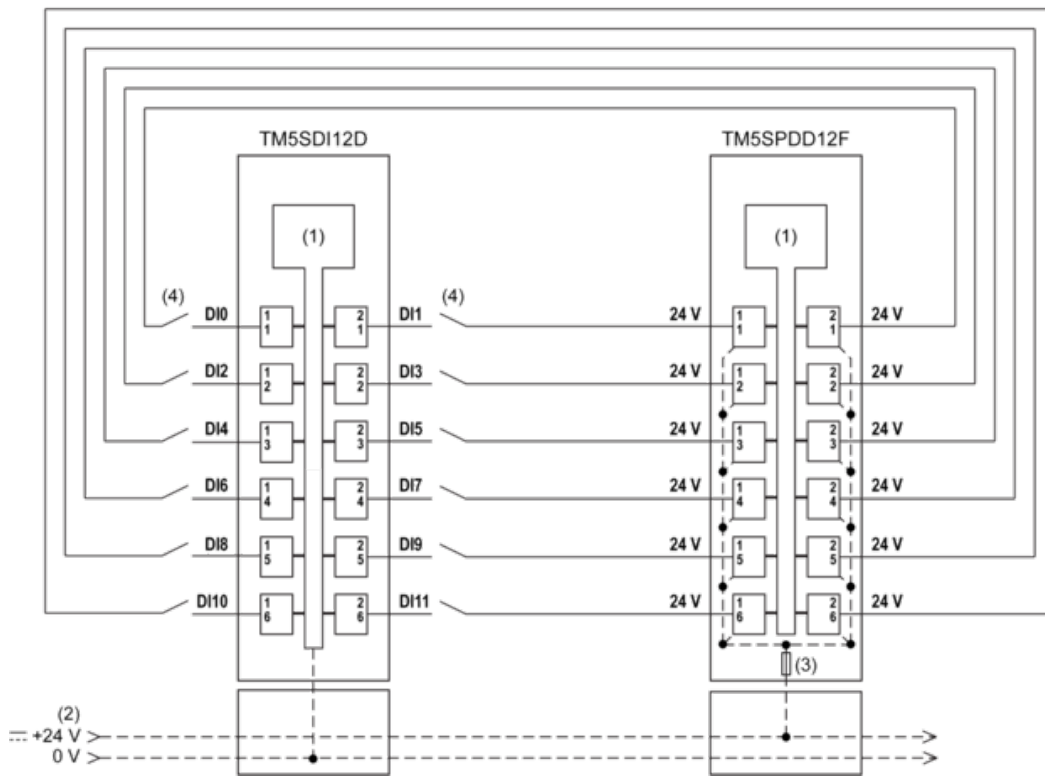
Electronic Module 12DI 24 Vdc Sink 1 Wire

Wiring Diagrams



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

To connect 2-wire devices, you can add a TM5SPDD12F Common Distribution module:



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