

Product data sheet

Specifications



Discrete input module, Modicon
TM5, Composition kit of I/
O(TM5SDI12D) + term.
block(TM5ACTB12) + bus
base(TM5ACBM11)

TM5SDI12DK

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
Colour	White
Voltage state 0 guaranteed	<= 5 V
Voltage state 1 guaranteed	>= 15 V
Input filtering	<= 25 ms configurable by software <= 100 ms hardware
Isolation	500 Vrms AC insulation between channel and bus No insulation between channels
Current consumption	36 mA at 5 V DC bus 73 mA at 24 V DC all inputs On
Maximum power dissipation in W	1.93 W
Local signalling	1 LED green for power supply 1 LED red for power supply 12 LEDs green for input status
Electrical connection	1 wire
Marking	CE

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Net weight	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 C-Tick GOST-R cULus
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

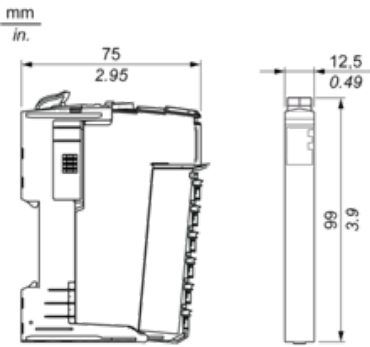
Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	114 g
Package 1 Height	7 cm
Package 1 width	9 cm
Package 1 Length	11 cm
Unit Type of Package 2	S03
Number of Units in Package 2	36
Package 2 Weight	4.545 kg
Package 2 Height	30 cm
Package 2 width	30 cm
Package 2 Length	40 cm

Contractual warranty

Warranty	18 months
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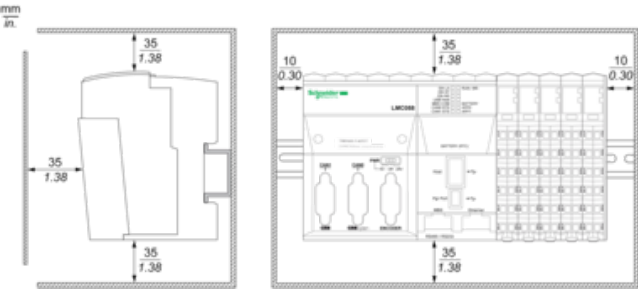
TM5 Slice

Dimensions

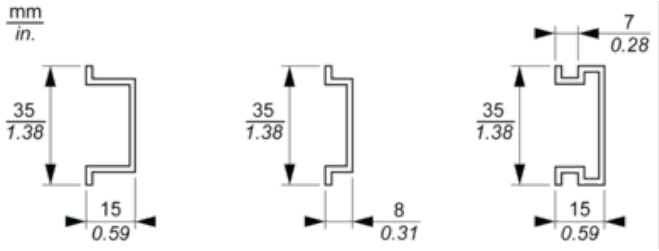


TM5 System

Spacing Requirements

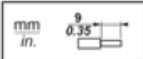


Mounting on a DIN Rail



TM5 System Wiring Recommendations

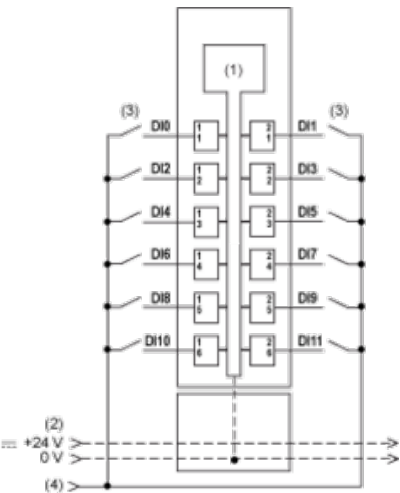
Wire Sizes to Use with the Removable Spring Terminal Blocks

				
mm 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

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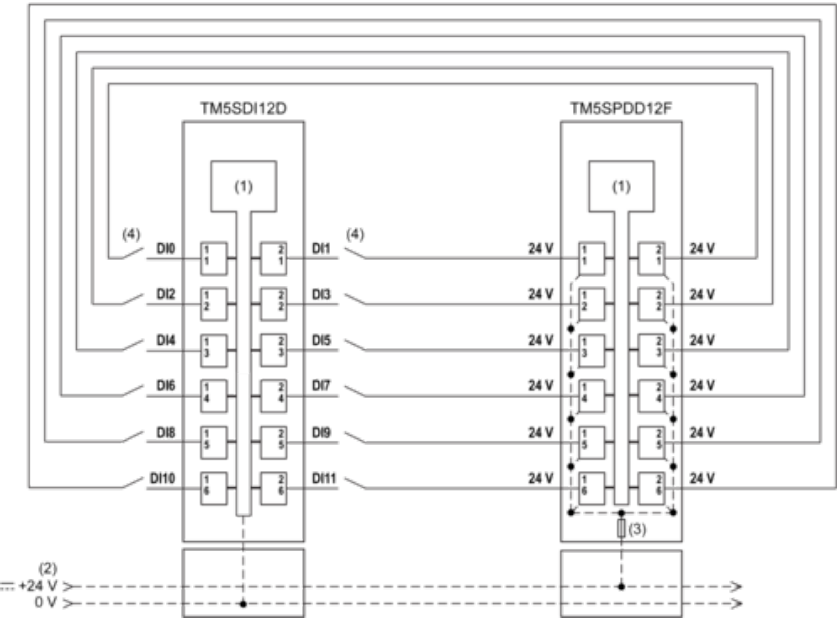
Electronic Module 12DI 24 Vdc Sink 1 Wire

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