Product data sheet

Specifications

discrete input module, Modicon TM5, 12DI, 24V DC sink, 1 wire

TM5SDI12D

Main

Range of product	Modicon TM5
Product or component type	Discrete input module
Discrete input number	12
Discrete input voltage	24 V

Complementary

Range compatibility	PacDrive LMC motion controller Modicon M258 Modicon LMC058
Product compatibility	Motion controller PacDrive LMC Pro PacDrive LMC Pro 2 Logic controller PacDrive LMC Eco
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
Product weight	0.025 kg

Environment

Standards	CSA C22.2 No 213 IEC 61131-2 UL 508 CSA C22.2 No 142
Product certifications	cULus C-Tick GOST-R CSA
Ambient air temperature for operation	-10…55 °C without derating (horizontal installation) -10…60 °C with derating factor (horizontal installation) -10…50 °C (vertical installation)
Ambient air temperature for storage	-40…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
Electromagnetic compatibility	Electrostatic discharge immunity test, 4 kV on contact conforming to IEC 61000-4-2 Electrostatic discharge immunity test, 8 kV in air conforming to IEC 61000-4-2 Susceptibility to electromagnetic fields, 1 V/m 2...2.7 GHz conforming to IEC 61000-4-3 Susceptibility to electromagnetic fields, 10 V/m 80...2000 MHz conforming to IEC 61000-4-3 Electrical fast transient/burst immunity test, 1 kV I/O conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test, 1 kV shielded cable conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test, 2 kV power lines conforming to IEC 61000-4-4 1.2/50 µs shock waves immunity test, 0.5 kV differential mode conforming to IEC 61000-4-5 1.2/50 µs shock waves immunity test, 1 kV common mode conforming to IEC 61000-4-5 Conducted RF disturbances conforming to IEC 61000-4-6 Conducted and radiated emissions conforming to CISPR 11

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	2.000 cm
Package 1 Width	6.000 cm
Package 1 Length	10.500 cm
Package 1 Weight	36.000 g
Unit Type of Package 2	S02
Number of Units in Package 2	97
Package 2 Height	15.000 cm
Package 2 Width	30.000 cm
Package 2 Length	40.000 cm
Package 2 Weight	3.866 kg

Contractual warranty

Warranty	18 months

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

Environmental footprint

Environmental Disclosure	Product Environmental Profile

Use Better

Materials and Substances

Packaging made with recycled cardboard	No
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACh Regulation	REACh Declaration
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
PVC free	Yes

Use Again

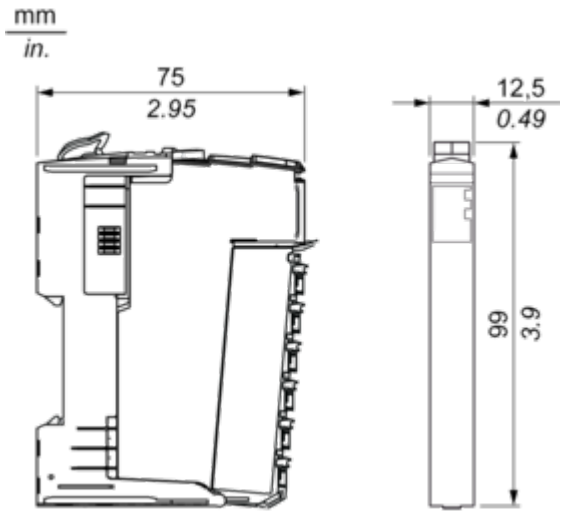
Repack and remanufacture

End of life manual availability	End of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

TM5 Slice

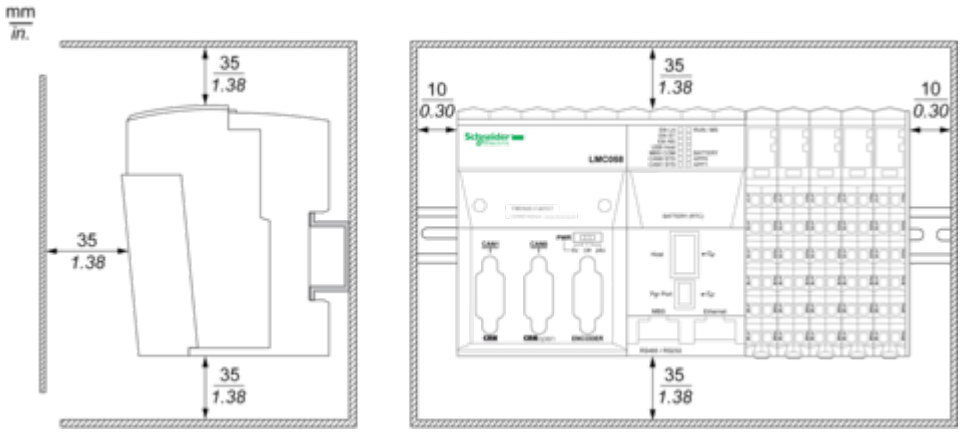
Dimensions



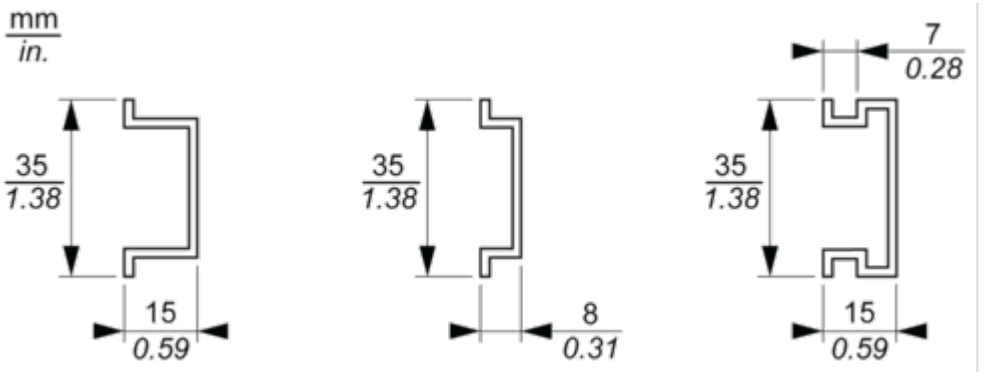
Mounting and Clearance

TM5 System

Spacing Requirements



Mounting on a DIN Rail



Connections and Schema

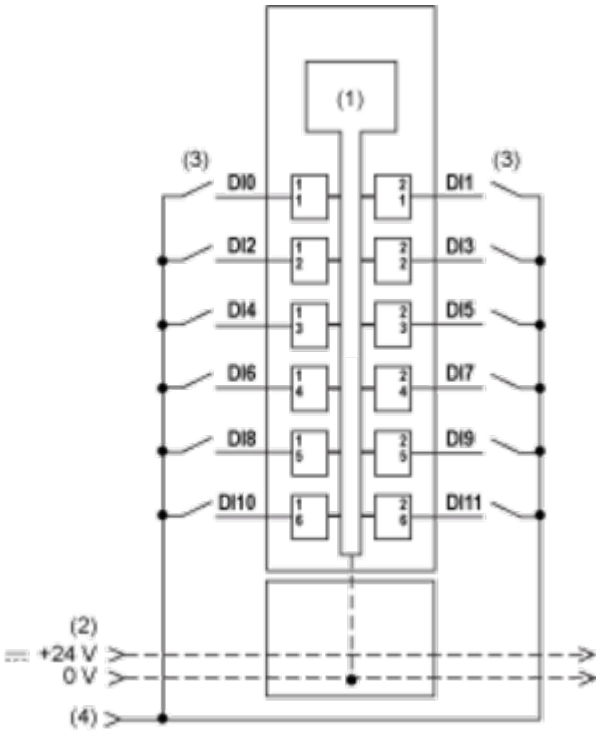
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

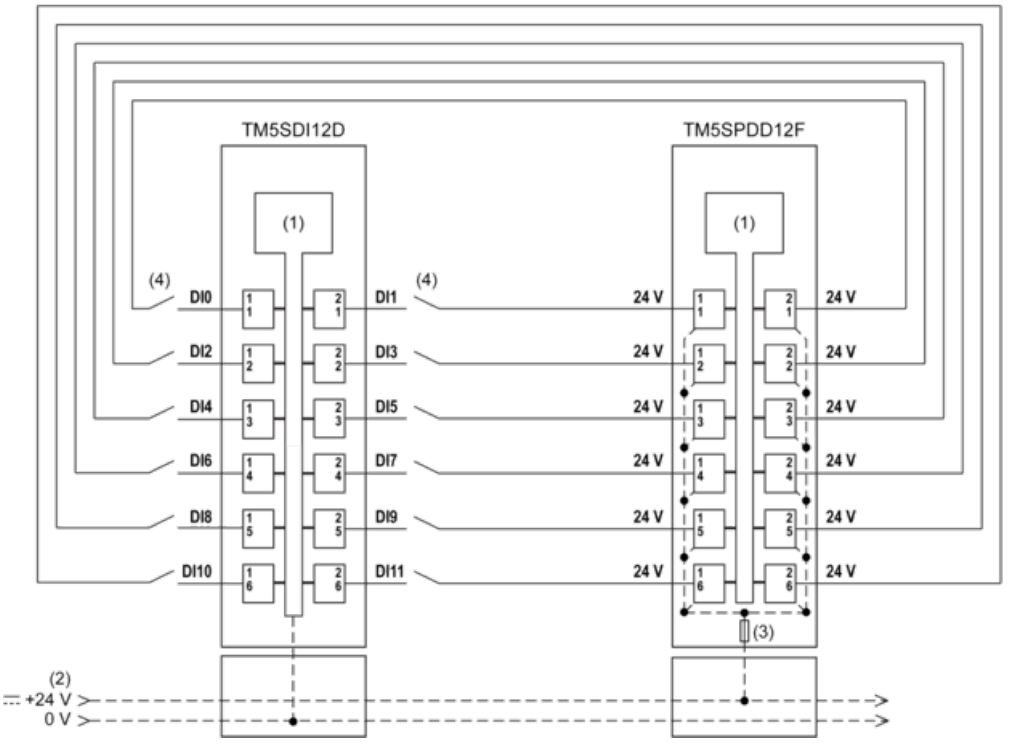
mm / in. 9 / 0.35				
mm^2	0,08…2,5	0,25…2,5	0,25…1,5	2 x 0,25...2 x 0,75
AWG	28…14	24…14	24…16	2 x 24…2 x 18

Electronic Module 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