

# Product datasheet

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	$\leq 5$ 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 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
Net Weight	0.025 kg

### Environment

<b>Standards</b>	CSA C22.2 No 213 IEC 61131-2 UL 508 CSA C22.2 No 142
<b>Product Certifications</b>	cULus C-Tick GOST-R CSA
<b>Ambient Air Temperature For Operation</b>	-10...55 °C without derating (horizontal installation) -10...60 °C with derating factor (horizontal installation) -10...50 °C (vertical installation)
<b>Ambient Air Temperature For Storage</b>	-40...70 °C
<b>Relative Humidity</b>	5...95 % without condensation
<b>Ip Degree Of Protection</b>	IP20 conforming to IEC 61131-2
<b>Pollution Degree</b>	2 conforming to IEC 60664
<b>Operating Altitude</b>	0...2000 m
<b>Storage Altitude</b>	0...3000 m
<b>Vibration Resistance</b>	1 gn at 8.4...150 Hz on DIN rail 3.5 mm at 5...8.4 Hz on DIN rail
<b>Shock Resistance</b>	15 gn for 11 ms
<b>Electromagnetic Compatibility</b>	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

<b>Unit Type Of Package 1</b>	PCE
<b>Number Of Units In Package 1</b>	1
<b>Package 1 Height</b>	2.000 cm
<b>Package 1 Width</b>	6.000 cm
<b>Package 1 Length</b>	10.500 cm
<b>Package 1 Weight</b>	36.000 g
<b>Unit Type Of Package 2</b>	S02
<b>Number Of Units In Package 2</b>	97
<b>Package 2 Height</b>	15.000 cm
<b>Package 2 Width</b>	30.000 cm
<b>Package 2 Length</b>	40.000 cm
<b>Package 2 Weight</b>	3.866 kg

## Contractual warranty

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Warranty

18 months

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

## Well-being performance

✓ Reach Free Of Svhc

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information Yes

✓ Pvc Free

## Certifications & Standards

**Reach Regulation**

[REACH Declaration](#)

**Eu Rohs Directive**

Pro-active compliance (Product out of EU RoHS legal scope)

[EU RoHS Declaration](#)

**China Rohs Regulation**

[China RoHS declaration](#)

**Environmental Disclosure**

[Product Environmental Profile](#)

**Weee**

The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

**Circularity Profile**

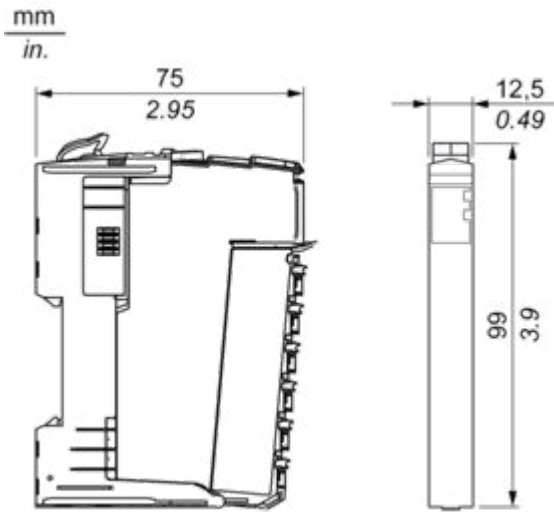
[End of Life Information](#)

Dimensions Drawings

TM5 Slice

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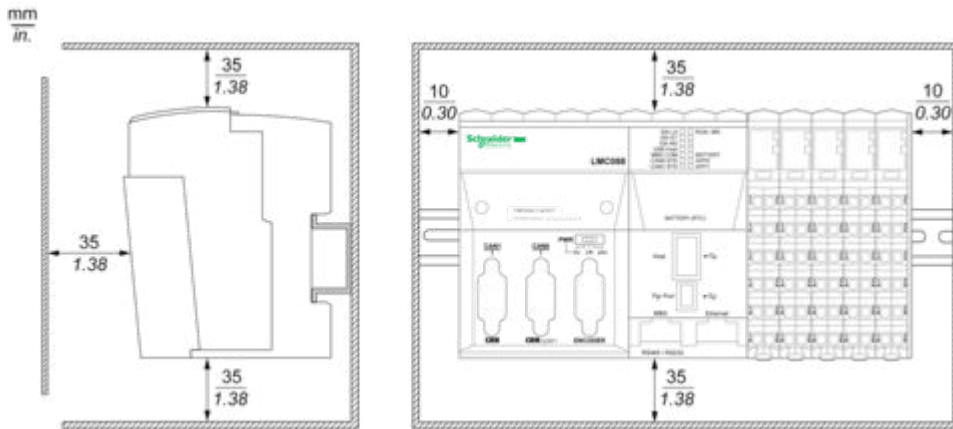
Dimensions



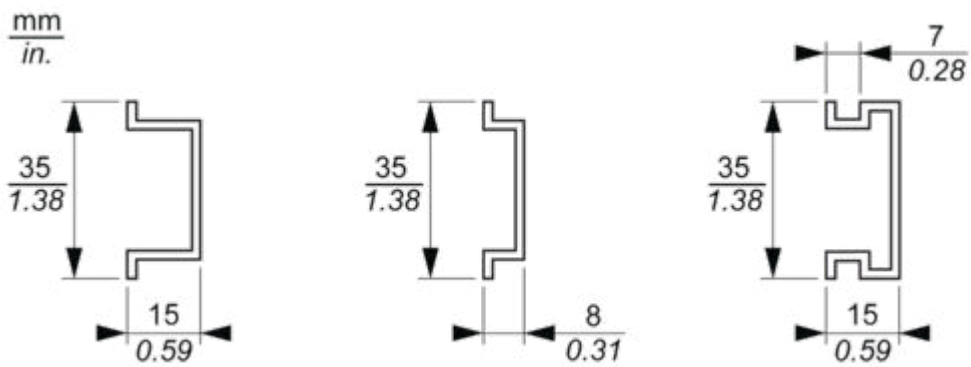
Mounting and Clearance

TM5 System

Spacing Requirements



Mounting on a DIN Rail



Connections and Schema

**TM5 System Wiring Recommendations**

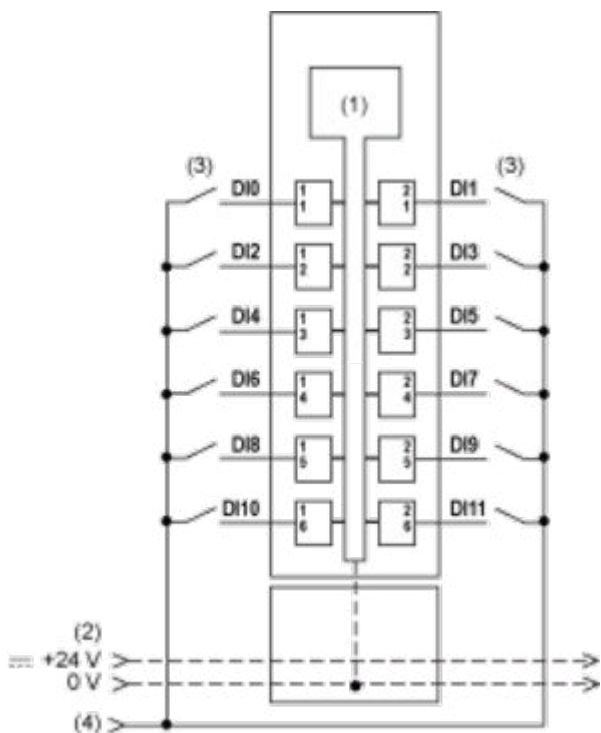
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**Wire Sizes to Use with the Removable Spring Terminal Blocks**

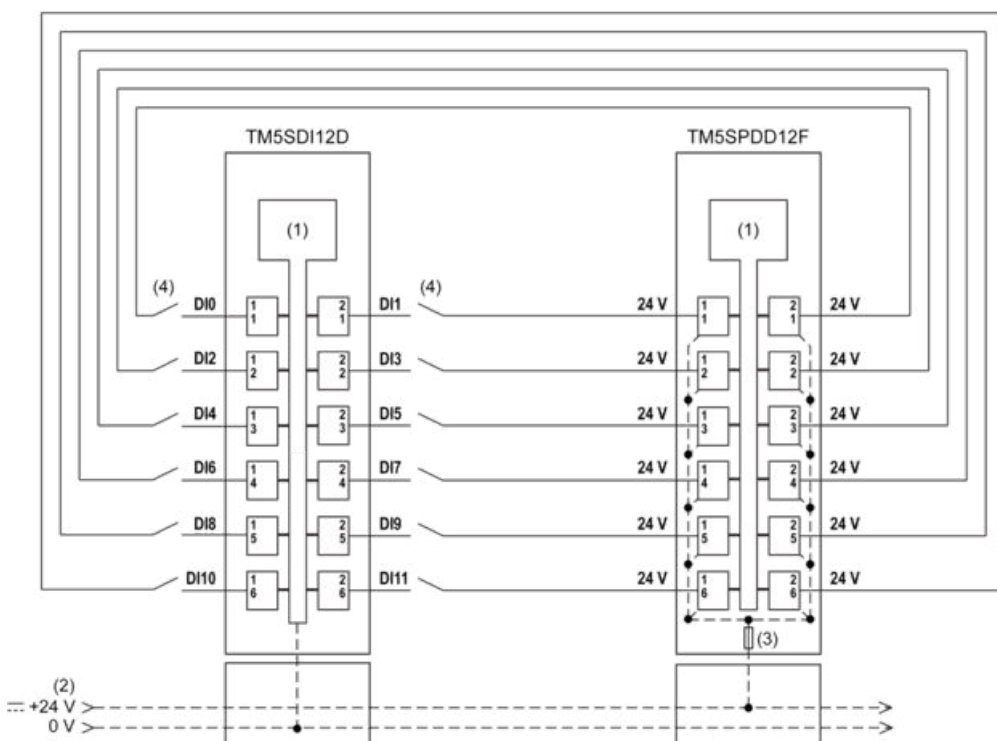
mm <sup>2</sup>	0,08...2,5	0,25...2,5	0,25...1,5	2 x 0,25...2 x 0,75
AWG	28...14	24...14	24...16	2 x 24...2 x 18

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