

# TM5SDI12DK

Composition kit of I/O(TM5SDI12D) + term.  
block(TM5ACTB12) + 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          | I/O module TM5SDI12D<br>Terminal block TM5ACTB12<br>Bus sub-base TM5ACBM11                   |
| Range compatibility         | Modicon LMC058<br>Modicon M258                                                               |
| Product compatibility       | Motion controller<br>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             | <= 100 ms hardware<br>0...25 ms configurable by software                                     |
| Isolation                   | No insulation between channels<br>500 Vrms AC insulation between channel and bus             |
| Current consumption         | 73 mA 24 V DC<br>36 mA 5 V DC                                                                |
| Power dissipation in W      | <= 1.93 W                                                                                    |
| Local signalling            | 12 LEDs green for input status<br>1 LED red for power supply<br>1 LED green for power supply |
| Electrical connection       | 1 wire                                                                                       |
| Marking                     | CE                                                                                           |
| Product weight              | 0.065 kg                                                                                     |

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## Environment

|                                       |                                                                                                                                                        |
|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                             | CSA C22.2 No 142<br>IEC 61131-2<br>UL 508<br>CSA C22.2 No 213                                                                                          |
| Product certifications                | CSA<br>C-Tick<br>CULus<br>GOST-R                                                                                                                       |
| Ambient air temperature for operation | 0...60 °C with derating factor horizontal installation<br>0...55 °C without derating factor horizontal installation<br>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                  | 3.5 mm 5...8.4 Hz DIN rail<br>1 gn 8.4...150 Hz DIN rail                                                                                               |
| Shock resistance                      | 15 gn for 11 ms                                                                                                                                        |
| Resistance to electrostatic discharge | 8 kV in air conforming to EN/IEC 61000-4-2<br>4 kV on contact conforming to EN/IEC 61000-4-2                                                           |
| Resistance to electromagnetic fields  | 10 V/m 80...2000 MHz conforming to EN/IEC 61000-4-3<br>1 V/m 2...2.7 GHz conforming to EN/IEC 61000-4-3                                                |
| Resistance to fast transients         | 2 kV power lines conforming to EN/IEC 61000-4-4<br>1 kV shielded cable conforming to EN/IEC 61000-4-4<br>1 kV I/O conforming to EN/IEC 61000-4-4       |
| Surge withstand                       | 1 kV common mode conforming to EN/IEC 61000-4-5<br>0.5 kV differential mode conforming to EN/IEC 61000-4-5                                             |
| Electromagnetic compatibility         | EN/IEC 61000-4-6                                                                                                                                       |
| Disturbance radiated/conducted        | CISPR 11                                                                                                                                               |

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TM5 Slice

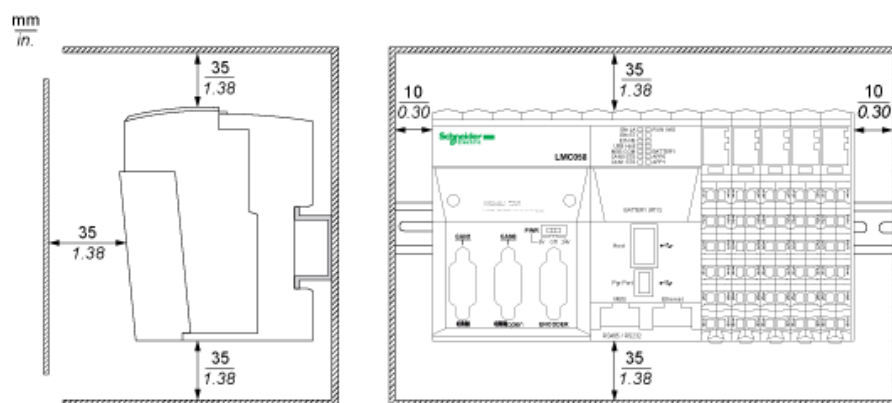
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Dimensions



## TM5 System

### Spacing Requirements



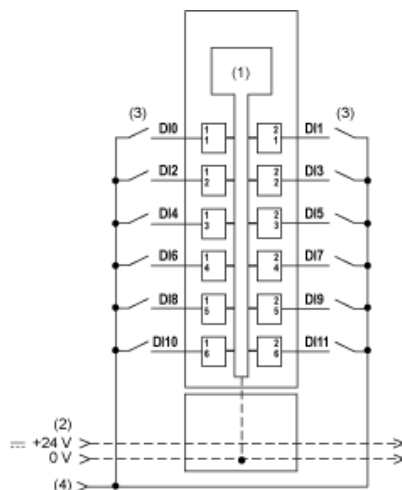
### Mounting on a DIN Rail



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

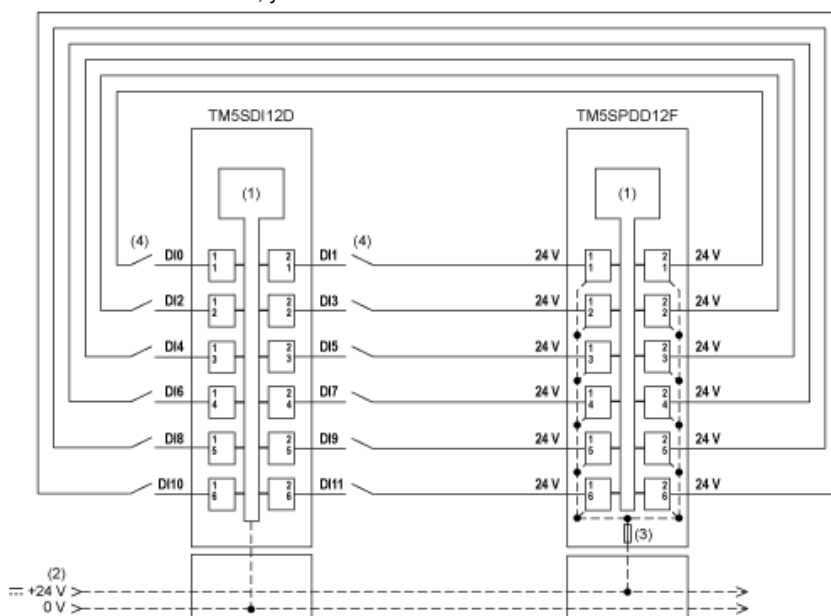
|                 |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| mm<br>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                                                                   |                                                                                   |

## 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