



### Main

|                           |                                 |
|---------------------------|---------------------------------|
| Range of product          | Modicon TM5                     |
| Product or component type | Safety dc discrete input module |
| Discrete input number     | 2                               |
| Discrete input voltage    | 24 V                            |

### Complementary

|                             |   |
|-----------------------------|---|
| Range compatibility         | Modicon LMC058<br>Modicon M258<br>PacDrive LMC motion controller  |
| Product compatibility       | Motion controller<br>Logic controller<br>PacDrive LMC Pro<br>PacDrive LMC Eco<br>PacDrive LMC Pro 2                             |
| Discrete input voltage type | DC  |
| Input voltage limits        | 20.4...28.8 V   |
| Discrete input logic        | Sink  |
| Discrete input current      | 3.45 mA   |
| Input impedance             | 7 kOhm  |
| Colour                      | Red   |
| Voltage state 0 guaranteed  | $\leq 5$ V  |
| Voltage state 1 guaranteed  | $\geq 15$ V   |
| Input filtering             | $\leq 150$ ms hardware<br>0...500 ms configurable by software   |
| Protection type             | Overload protection<br>Short-circuit protection   |
| Isolation                   | No insulation between channels<br>500 Vrms AC insulation between channel and bus  |
| Voltage drop                | $\leq 0.6$ V at 100 mA  |
| Supply current for sensors  | 300 mA  |
| Power consumption in W      | 0.25 W for bus<br>1 W for internal  |
| Local signalling            | 2 LEDs red for safety status<br>2 LEDs green/red for input status<br>1 LED red for power supply<br>1 LED green for power supply |
| Electrical connection       | 2 wires   |
| Marking                     | CE  |
| Safety level                | PL = e conforming to EN 13849-1<br>SIL 3 conforming to IEC 62061<br>SIL 3 conforming to IEC 61508                               |
| Safety reliability data     | PFH < 1E-9<br>PFD < 1E-5<br>MTTFd > 100 years   |
| Product weight              | 0.025 kg  |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

## Environment

|                                       |   |
|---------------------------------------|---|
| Standards                             | CSA C22.2 No 142<br>EN 13849-1<br>IEC 61131-2<br>IEC 61508<br>UL 508<br>IEC 62061   |
| Product certifications                | CSA<br>CULus<br>GOST-R  |
| Ambient air temperature for operation | -10...60 °C<br>-10...55 °C horizontal installation<br>-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 EN 60529   |
| Pollution degree                      | 2 conforming to IEC 60664   |
| Operating altitude                    | 0...2000 m  |
| Storage altitude                      | 0...3000 m  |
| Vibration resistance                  | 3.5 mm (f = 5...8.4 Hz) DIN rail<br>1 gn (f = 8.4...150 Hz) DIN rail  |
| Shock resistance                      | 15 gn for 11 ms   |
| Electromagnetic compatibility         | Conducted and radiated emissions conforming to CISPR 11<br>Conducted RF disturbances conforming to EN/IEC 61000-4-6<br>1.2/50 µs shock waves immunity test (1 kV - common mode) conforming to EN/IEC 61000-4-5<br>1.2/50 µs shock waves immunity test (0.5 kV - differential mode) conforming to EN/IEC 61000-4-5<br>Electrical fast transient/burst immunity test (2 kV - power lines) conforming to EN/IEC 61000-4-4<br>Electrical fast transient/burst immunity test (1 kV - shielded cable) conforming to EN/IEC 61000-4-4<br>Electrical fast transient/burst immunity test (1 kV - I/O) conforming to EN/IEC 61000-4-4<br>Susceptibility to electromagnetic fields (10 V/m - 80...2000 MHz) conforming to EN/IEC 61000-4-3<br>Electrostatic discharge immunity test (8 kV - in air) conforming to EN/IEC 61000-4-2<br>Electrostatic discharge immunity test (4 kV - on contact) conforming to EN/IEC 61000-4-2 |

## Offer Sustainability

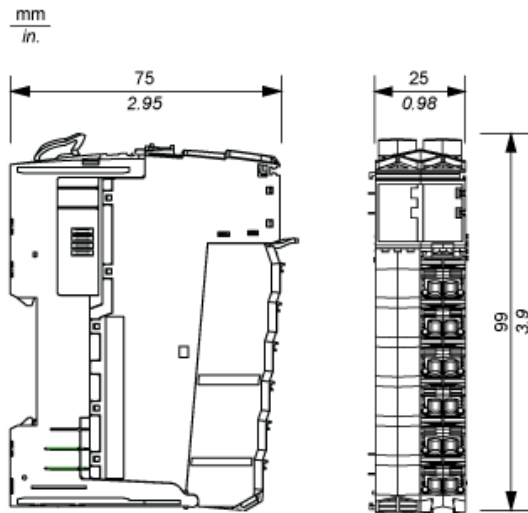
|                               |   |
|-------------------------------|---|
| Sustainable offer status      | Not Green Premium product   |
| RoHS (date code: YYWW)        | Compliant - since 1133 - <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                         | Reference not containing SVHC above the threshold                                     |
| Product environmental profile | Available   |

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TM5 Slice

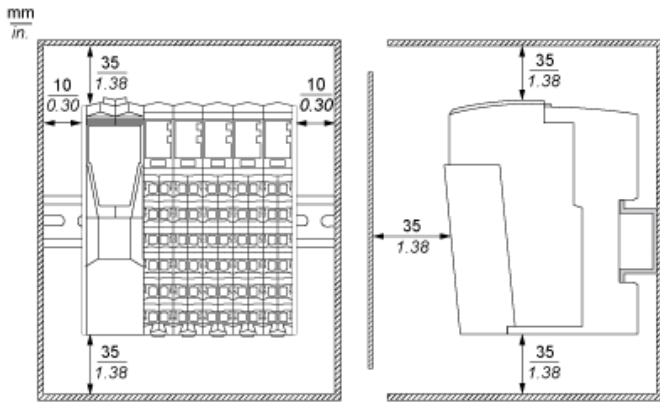
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Dimensions

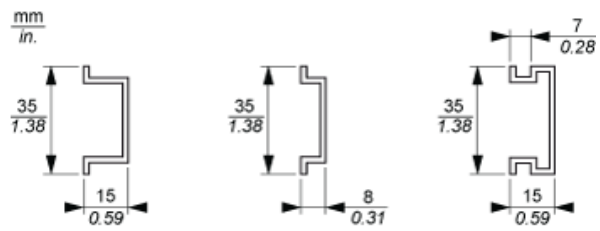


TM5 Safety System

Spacing Requirements



Mounting on a DIN Rail



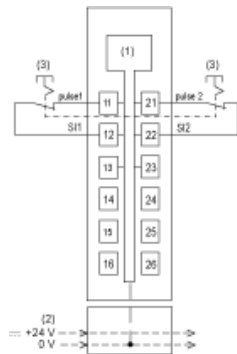
TM5 System Wiring Recommendations

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   |

Electronic Module 2DI 24 Vdc Sink 2 Wires

Wiring Diagram



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