Product data sheet
Characteristics

TM5SDM12DT
digital I/O module - 8I - 4O - 24V DC - 1 wire

Main

Range of product	Modicon TM5
Product or component type	Discrete I/O module
Discrete input number	8
Discrete input voltage	24 V
Discrete output number	4
Discrete output type	Transistor

Complementary

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
Output voltage	24 V DC
Output voltage limits	20.4...28.8 V
Discrete output logic	Source
Current per channel	0.5 A
Current per output common	<= 2 A
Colour	White
Peak output current	<= 12 A
Switching frequency	<= 500 Hz resistive load
Voltage state 0 guaranteed	<= 5 V
Voltage state 1 guaranteed	>= 15 V
Input filtering	<= 100 ms hardware 0...25 ms configurable by software
Response time	<= 300 µs from state 1 to state 0 for output <= 300 µs from state 0 to state 1 for output
Leakage current	5 µA when switched off
Short-circuit protection	With
Overload protection	With
Reverse polarity protection	With
Voltage drop	<= 0.3 V at 500 mA for output
Current consumption	21 mA 24 V DC all inputs On 42 mA 5 V DC bus
Power dissipation in W	<= 1.52 W
Local signalling	8 LEDs green for input status 4 LEDs yellow for output status 1 LED red for power supply 1 LED green for power supply
Electrical connection	1 wire

Marking	CE
Product weight	0.025 kg

Environment

Standards	CSA 22-2 No 142 IEC 61131-2 UL 508 CSA 22-2 No 213
Product certifications	CSA C-Tick CULus GOST-R
Ambient air temperature for operation	0...60 °C with derating factorhorizontal installation 0...55 °C without derating factorhorizontal 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	3.5 mm 5...8.4 Hz DIN rail 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 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 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 1 kV shielded cable conforming to EN/IEC 61000-4-4 1 kV I/O conforming to EN/IEC 61000-4-4
Surge withstand	1 kV common mode conforming to EN/IEC 61000-4-5 0.5 kV differential mode conforming to EN/IEC 61000-4-5
Electromagnetic compatibility	EN/IEC 61000-4-6
Disturbance radiated/conducted	CISPR11

Not classified

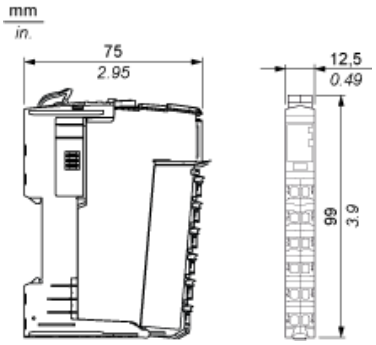
Isolation	No insulation between channels 500 Vrms AC insulation between channel and bus

Offer Sustainability

Sustainable offer status	Not Green Premium product
RoHS	Compliant - since 1039 - Schneider Electric declaration of conformity download declaration of conformity

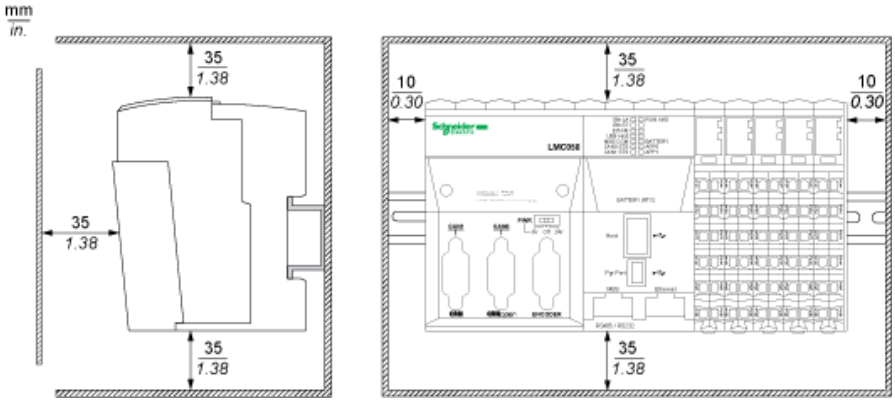
TM5 Slice

Dimensions

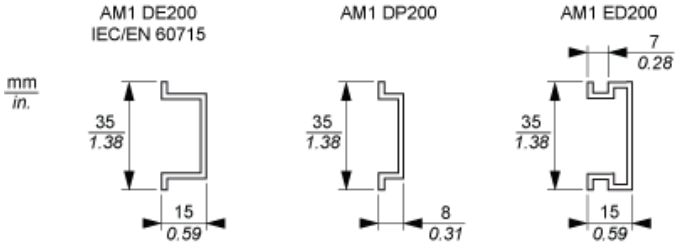


TM5 System

Spacing Requirements



Mounting on a DIN Rail



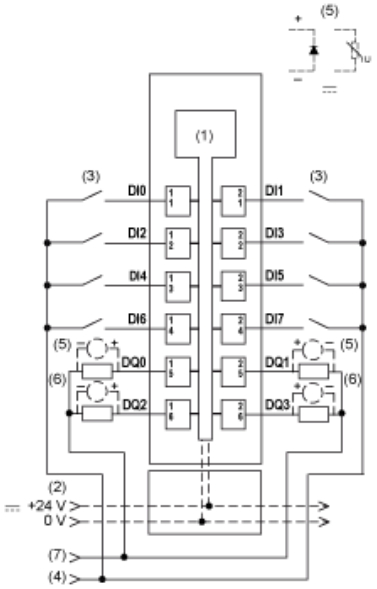
TM5 System Wiring Recommendations

Wire Sizes to Use with the Removable Spring Terminal Blocks

mm / in.				
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

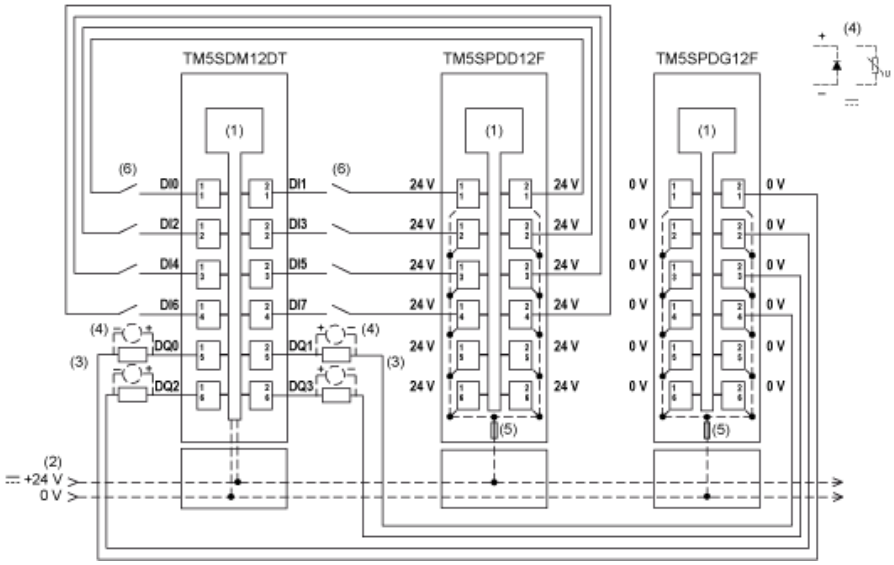
Electronic Module 8DI/4DO Tr 1 Wire

Wiring Diagram



(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
(5) Inductive load protection
(6) 2-wire load
(7) 0 Vdc I/O power segment by external connection

To connect 2-wire devices, you can add TM5SPDD12F and TM5SPDG12F Common Distribution modules:



(1) Internal electronics
(2) 24 Vdc I/O power segment integrated into the bus bases
(3) 2-wire load
(4) Inductive load protection
(5) Integrated fuse type T slow-blow 6.3 A 250 V exchangeable
(6) 2-wire sensor