## Product data sheet Characteristics

# TM5SDM12DT Discrete I/O module, Modicon TM5, digital 8I, 4O, 24 V DC, 1 wire





Modicon TM5
Discrete I/O module
8
24 V
4
Transistor

#### Complementary

completition				
Range Compatibility	Modicon M258 Modicon LMC058 PacDrive LMC motion controller			
Product Compatibility	PacDrive LMC motion controller PacDrive LMC Pro 2 Motion controller PacDrive LMC Pro			
	PacDrive LMC Fro PacDrive LMC Eco Logic controller			
Discrete input voltage type	DC			
Input voltage limits	20.428.8 V			
Discrete input logic	Sink			
Discrete input current	3.75 mA			
Input impedance	6.4 kOhm			
Output voltage	24 V DC			
Output voltage limits	20.428.8 V			
Discrete output logic	Source			
Current per channel	0.5 A			
Maximum current per output common	2 A			
Color	White			
Peak output current	12 A			
Switching frequency	<= 500 Hz resistive			
Voltage state 0 guaranteed	<= 5 V			
Voltage state 1 guaranteed	>= 15 V			
Input filtering	<= 25 ms configurable by software <= 100 ms hardware			
Response time	<= 300 µs from state 0 to state 1 output <= 300 µs from state 1 to state 0 output			
Maximum leakage current	5 µA when switched off			
Protection Type	Reverse polarity protection Short-circuit protection Overload protection			
Isolation	No insulation between channels 500 Vrms AC insulation between channel and bus			
Maximum voltage drop	<0.3 V at 500 mA output			
Current consumption	42 mA 5 V DC bus 21 mA 24 V DC all inputs On			
Maximum power dissipation in W	1.52 W			



Local signalling	1 LED green power supply 1 LED red power supply 4 LEDs yellow output status 8 LEDs green input status		
Electrical connection	1 wire		
Marking	CE		
Net Weight	0.06 lb(US) (0.025 kg)		

### Environment

Environment				
Standards	CSA C22.2 No 142 UL 508 CSA C22.2 No 213 IEC 61131-2			
Product Certifications	GOST-R CULus C-tick CSA			
Ambient air temperature for operation	14131 °F (-1055 °C) without derating horizontal installation) 14140 °F (-1060 °C) with derating factor horizontal installation) 14122 °F (-1050 °C) vertical installation)			
Ambient Air Temperature for Storage	-40158 °F (-4070 °C)			
Relative Humidity	595 % without condensation			
IP degree of protection	IP20IEC 61131-2			
Pollution degree	2 IEC 60664			
Operating altitude	06561.68 ft (02000 m)			
Storage altitude	0.009842.52 ft (03000 m)			
Vibration resistance	1 gn 8.4…150 Hz DIN rail 3.5 mm 5…8.4 Hz DIN rail			
Shock resistance	15 gn 11 ms			
Electromagnetic compatibility	Electrostatic discharge immunity test, 4 kV on contact EN/IEC 61000-4-2 Electrostatic discharge immunity test, 8 kV in air EN/IEC 61000-4-2 Susceptibility to electromagnetic fields, 1 V/m 22.7 GHz EN/IEC 61000-4-3 Electrical fast transient/burst immunity test, 1 kV I/O EN/IEC 61000-4-4 Electrical fast transient/burst immunity test, 1 kV shielded cable EN/IEC 61000-4-4 Electrical fast transient/burst immunity test, 2 kV power lines EN/IEC 61000-4-4 1.2/50 µs shock waves immunity test, 1 kV common mode EN/IEC 61000-4-5 Conducted RF disturbances EN/IEC 61000-4-6 Conducted and radiated emissions CISPR 11			

# Ordering and shipping details

Category	22532 - M258 PLC	
Discount Schedule	PC12	
GTIN	3595864074504	
Nbr. of units in pkg.	1	
Package weight(Lbs)	1.34 oz (38 g)	
Returnability	Yes	
Country of origin	AT	

## Packing Units

Unit Type of Package 1	PCE	
Package 1 Height	0.79 in (2 cm)	
Package 1 width	2.36 in (6 cm)	
Package 1 Length	4.33 in (11 cm)	

Sustainable offer status	Green Premium product			
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			
REACh Regulation	REACh Declaration			
REACh free of SVHC	Yes			
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <sup>Pro-</sup> EU RoHS			
Toxic heavy metal free	Yes			
Mercury free	Yes			
RoHS exemption information	₽¥Yes			
China RoHS Regulation	☑ China RoHS Declaration			
Environmental Disclosure	Product Environmental Profile			
Circularity Profile	Provide the Information			
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.			
PVC free	Yes			

Warranty

18 months

# TM5SDM12DT

### TM5 Slice

#### Dimensions



# TM5SDM12DT

## TM5 System

### **Spacing Requirements**



## Mounting on a DIN Rail



# TM5SDM12DT

# TM5 System Wiring Recommendations

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

mm in.	9 0.35			B	æ
	mm <sup>2</sup>	0,082,5	0,252,5	0,251,5	2 x 0,252 x 0,75
	AWG	2814	24 14	2416	2 x 242 x 18

#### Electronic Module 8DI/4DO Tr 1 Wire

#### Wiring Diagram



- Internal electronics (1)
- (2) 24 Vdc I/O power segment integrated into the bus bases
- 2-wire sensor
- (2) (3) (4) (5) (6) (7) 24 Vdc I/O power segment by external connection
- Inductive load protection
- 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:



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