

Product datasheet

Specifications



discrete input module, Modicon TM3, 16 inputs, spring, 24V DC

TM3DI16G

Main

Range of product	Modicon TM3
Product or component type	Discrete input module
Range compatibility	Modicon M241 Modicon M251 Modicon M221 Modicon M262
Discrete input number	16 for input conforming to IEC 61131-2 type 3
Discrete input logic	Sink or source (positive/negative)
Discrete input voltage	24 V
Discrete input current	7 mA for input

Complementary

Discrete I/O number	16
Current consumption	40 mA at 5 V DC via bus connector (at state on) 5 mA at 5 V DC via bus connector (at state off) 0 mA at 24 V DC via bus connector (at state on) 0 mA at 24 V DC via bus connector (at state off)
Discrete input voltage type	DC
Voltage state 1 guaranteed	15...28.8 V for input
Current state 1 guaranteed	>= 2.5 mA (input)
Voltage state 0 guaranteed	0...5 V for input
Current state 0 guaranteed	<= 1 mA (input)
Input impedance	3.4 kOhm
Response time	4 ms (turn-on) 4 ms (turn-off)
Local signalling	1 LED per channel (green) for input status
Electrical connection	10 x 1.5 mm ² removable spring terminal block with pitch 3.81 mm adjustment for inputs
Maximum cable distance between devices	Unshielded cable: <50 m for regular input
Insulation	Between input and internal logic at 500 V AC Non-insulated between inputs
Marking	CE
Mounting support	Top hat type TH35-15 rail conforming to IEC 60715 Top hat type TH35-7.5 rail conforming to IEC 60715 plate or panel with fixing kit
Height	90 mm

Disclaimer: 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

Depth	84.6 mm
Width	27.4 mm
Net weight	0.1 kg

Environment

Standards	IEC 61131-2
Product certifications	CE cULus UKCA RCM EAC cULus HazLoc
Resistance to electrostatic discharge	8 kV in air conforming to IEC 61000-4-2 4 kV on contact conforming to IEC 61000-4-2
Resistance to electromagnetic fields	10 V/m 80 MHz...1 GHz conforming to IEC 61000-4-3 3 V/m 1.4 GHz...2 GHz conforming to IEC 61000-4-3 1 V/m 2 GHz...3 GHz conforming to IEC 61000-4-3
Resistance to magnetic fields	30 A/m 50/60 Hz conforming to IEC 61000-4-8
Resistance to fast transients	1 kV for I/O conforming to IEC 61000-4-4
Surge withstand	1 kV I/O common mode conforming to IEC 61000-4-5 DC
Resistance to conducted disturbances	10 V 0.15...80 MHz conforming to IEC 61000-4-6 3 V spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz) conforming to Marine specification (LR, ABS, DNV, GL)
Electromagnetic emission	Radiated emissions - test level: 40 dBµV/m QP class A (10 m) at 30...230 MHz conforming to IEC 55011 Radiated emissions - test level: 47 dBµV/m QP class A (10 m) at 230...1000 MHz conforming to IEC 55011
Ambient air temperature for operation	-10...35 °C vertical installation -10...55 °C horizontal installation
Ambient air temperature for storage	-25...70 °C
Relative humidity	10...95 %, without condensation (in operation) 10...95 %, without condensation (in storage)
IP degree of protection	IP20 with protective cover in place
pollution degree	2
Operating altitude	0...2000 m
Storage altitude	0...3000 m
Vibration resistance	3.5 mm at 5...8.4 Hz on DIN rail 3 gn at 8.4...150 Hz on DIN rail 3.5 mm at 5...8.4 Hz on panel 3 gn at 8.4...150 Hz on panel
Shock resistance	15 gn for 11 ms

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.0 cm
Package 1 Width	13.0 cm
Package 1 Length	11.0 cm
Package 1 Weight	199.0 g
Unit Type of Package 2	S04

Number of Units in Package 2	42
Package 2 Height	30 cm
Package 2 Width	40 cm
Package 2 Length	60 cm
Package 2 Weight	9.124 kg
Unit Type of Package 3	P12
Number of Units in Package 3	504
Package 3 Height	105 cm
Package 3 Width	120 cm
Package 3 Length	80 cm
Package 3 Weight	125 kg

Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint	
Carbon footprint (kg.eq.CO2 per CR, Total Life cycle)	20
Environmental Disclosure	Product Environmental Profile

Use Better

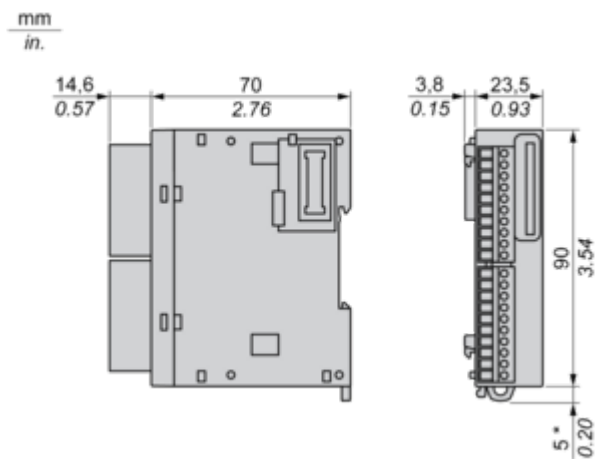
Materials and Substances	
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope)
REACH Regulation	REACH Declaration
PVC free	Yes

Use Again

Repack and remanufacture	
Circularity Profile	End of Life Information
Take-back	No
WEEE	 The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Dimensions Drawings

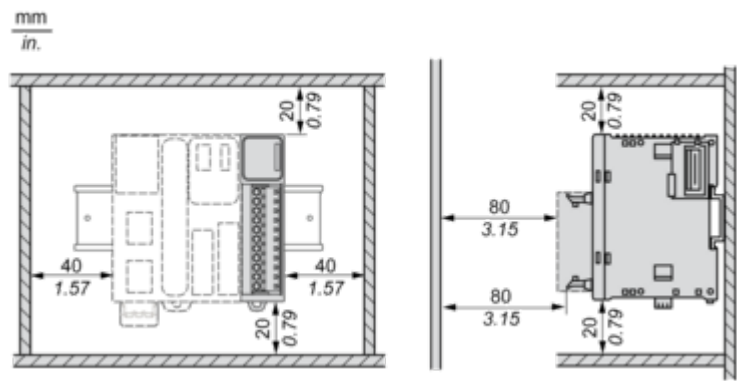
Dimensions



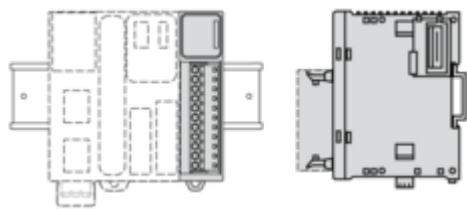
(*) 8.5 mm/0.33 in. when the clamp is pulled out.

Mounting and Clearance

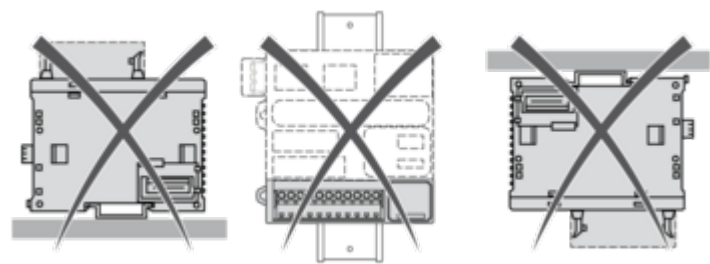
Spacing Requirements



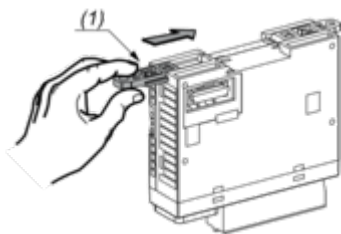
Mounting on a Rail



Incorrect Mounting

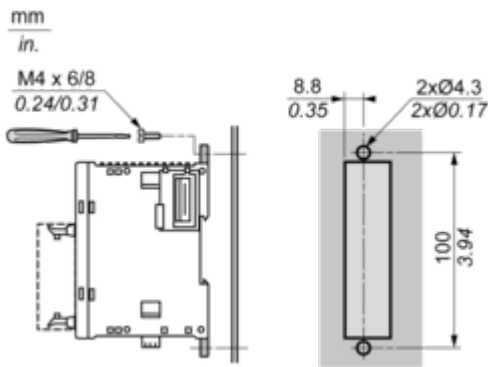


Mounting on a Panel Surface



(1) Install a mounting strip

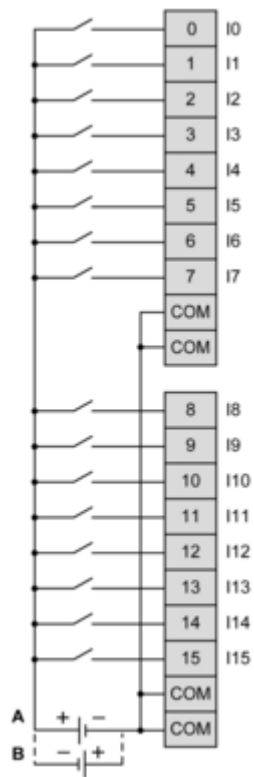
Mounting Hole Layout



Connections and Schema

Digital Input Module (16-channel, 24 Vdc)

Wiring Diagrams



The 4 COM terminals are connected internally
(A) Sink wiring (positive logic)
(B) Source wiring (negative logic)