Product datasheet
Characteristics

TM3DI8A
module TM3 - 8 inputs 120V AC

Main

Range of product	Modicon TM3
Product or component type	Discrete input module
Range compatibility	Modicon M251 Modicon M241 Modicon M221
Discrete input number	8 input conforming to IEC 61131-2 Type 1
Discrete input voltage	120 V
Discrete input current	7.5 mA for input

Complementary

Discrete I/O number	8
Current consumption	0 mA at 24 V DC via bus connector at state on 0 mA at 24 V DC via bus connector at state off 70 mA at 5 V DC via bus connector at state on 25 mA at 5 V DC via bus connector at state off
Discrete input voltage type	AC
Voltage state 1 guaranteed	79...132 V for input
Current state 1 guaranteed	2...15 mA for input
Voltage state 0 guaranteed	0...20 V for input
Current state 0 guaranteed	<= 15 mA for input
Input impedance	11 kOhm
Response time	25 ms for turn-on 30 ms for turn-off
Local signalling	1 LED per channel green for input status
Electrical connection	Removable screw terminal block pitch 5.08 mm with 11 terminal(s) of 2.5 mm² connection capacity for inputs
Insulation	Non-insulated between inputs 1500 V AC between input and internal logic 1500 V AC between input groups
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
Depth	84.6 mm
Width	27.4 mm

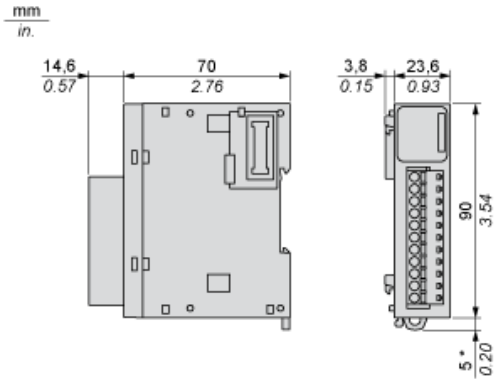
Environment

Standards	EN/IEC 61131-2 EN/IEC 61010-2-201
Product certifications	C-Tick cULus
Resistance to electrostatic discharge	4 kV (on contact) conforming to EN/IEC 61000-4-2 8 kV (in air) conforming to EN/IEC 61000-4-2
Resistance to electromagnetic fields	10 V/m at 80 MHz...1 GHz conforming to EN/IEC 61000-4-3 3 V/m at 1.4 GHz...2 GHz conforming to EN/IEC 61000-4-3 1 V/m at 2 GHz...3 GHz conforming to EN/IEC 61000-4-3
Resistance to magnetic fields	30 A/m conforming to EN/IEC 61000-4-8
Resistance to fast transients	1 kV for I/O conforming to EN/IEC 61000-4-4
Surge withstand	2 kV for I/O (AC) in common mode conforming to EN/IEC 61000-4-5
Resistance to conducted disturbances	10 Vrms at 0.15...80 MHz conforming to EN/IEC 61000-4-6 3 Vrms at 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 with class A, condition of test: 10 m (radio frequency: 30...230 MHz) conforming to EN/IEC 55011 Radiated emissions, test level: 47 dBµV/m QP with class A, condition of test: 10 m (radio frequency: 230 MHz...1 GHz) conforming to EN/IEC 55011
Ambient air temperature for operation	-10...55 °C for horizontal installation -10...35 °C for vertical 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 (vibration frequency: 5...8.4 Hz) on DIN rail 3 gn (vibration frequency: 8.4...150 Hz) on DIN rail 3.5 mm (vibration frequency: 5...8.4 Hz) on panel 3 gn (vibration frequency: 8.4...150 Hz) on panel
Shock resistance	15 gn (test wave duration:11 ms)

Offer Sustainability

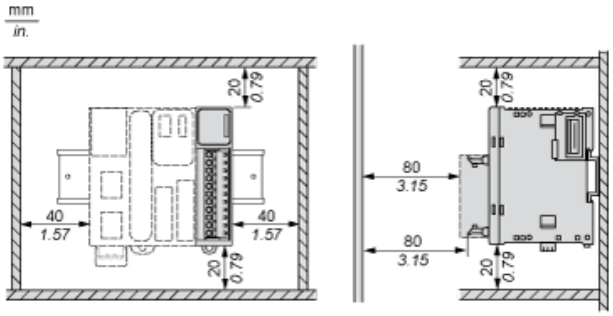
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1348 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACh	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental profile	Available Product environmental
Product end of life instructions	Available End of life manual

Dimensions

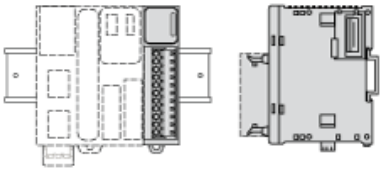


(*) 8.5 mm/0.33 in. when the clamp is pulled out.

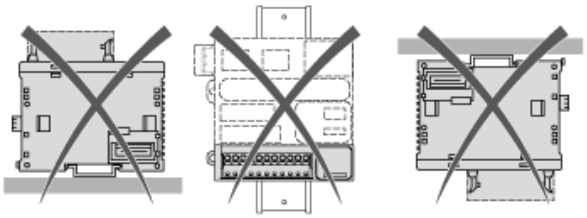
Spacing Requirements



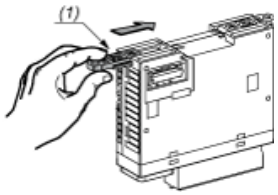
Mounting on a Rail



Incorrect Mounting

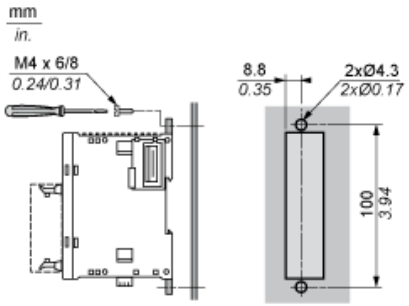


Mounting on a Panel Surface



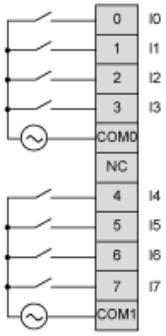
(1) Install a mounting strip

Mounting Hole Layout



Digital Input Module (8-channel, 120 Vac)

Wiring Diagram



The COM0 and COM1 terminal are not connected internally.