



Main

Range of product	Modicon TM3
Product or component type	Discrete input module
Range compatibility	Modicon M221 Modicon M241 Modicon M251
Discrete input number	32 input conforming to IEC 61131-2 Type 1
Discrete input logic	Sink or source (positive/negative)
Discrete input voltage	24 V
Discrete input current	5 mA for input

Complementary

Discrete I/O number	32
Current consumption	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 65 mA at 5 V DC via bus connector at state on
Discrete input voltage type	DC
Voltage state 1 guaranteed	15...28.8 V for input
Current state 1 guaranteed	≥ 2.5 mA for input
Voltage state 0 guaranteed	0...5 V for input
Current state 0 guaranteed	≤ 1 mA for input
Input impedance	4.4 kOhm
Response time	4 ms for turn-on 4 ms for turn-off
Local signalling	Green for input status
Electrical connection	HE-10 connector for inputs
Cable length	≤ 30 m unshielded cable for regular input
Insulation	Non-insulated between inputs 500 V AC between input and internal logic
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	81.3 mm
Width	33.5 mm
Product weight	0.1 kg

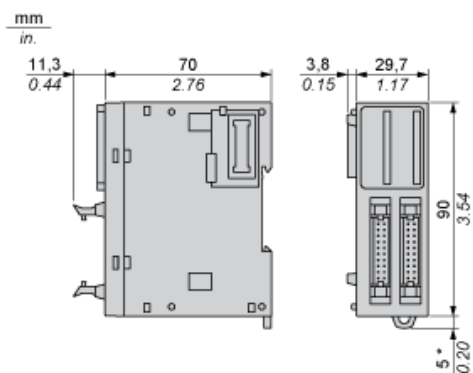
Environment

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 at 50...60 Hz 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	1 kV for I/O (DC) in common mode conforming to EN/IEC 61000-4-5
Resistance to conducted disturbances, induced by radio frequency fields	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

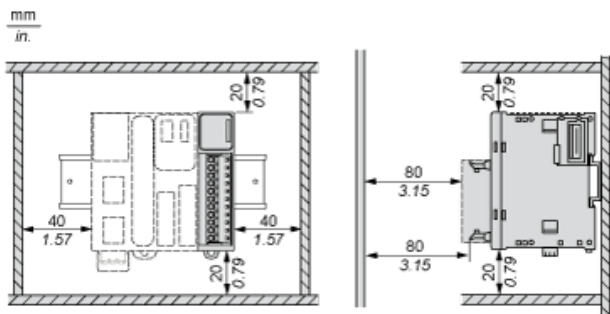
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1348 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold Reference not containing SVHC above the threshold
Product environmental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

Dimensions

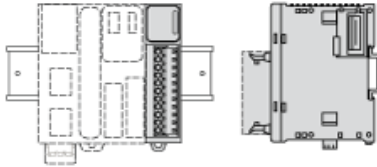


(*) 8.5 mm/0.33 in. when the clamp is pulled out.

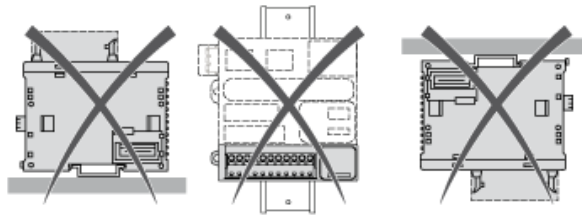
Spacing Requirements



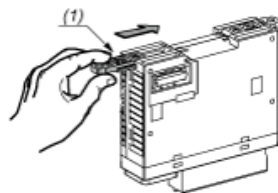
Mounting on a Rail



Incorrect Mounting

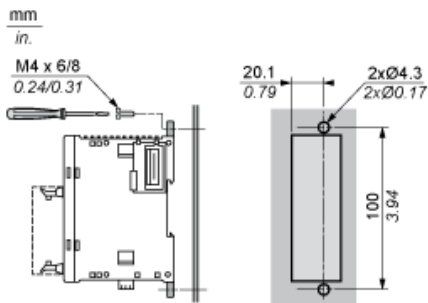


Mounting on a Panel Surface



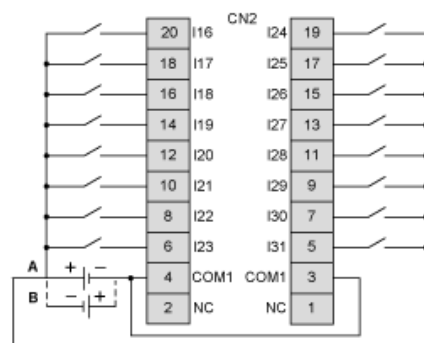
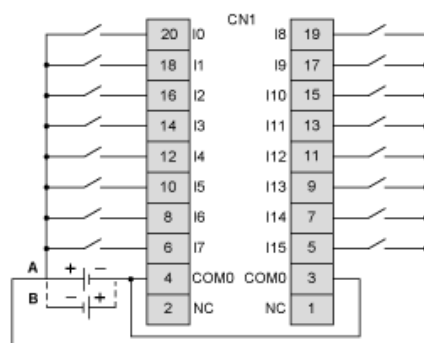
- (1) Install a mounting strip

Mounting Hole Layout



Digital Input Module (32-channel, 24 Vdc)

Wiring Diagram



The COM0 and COM1 terminals are not connected internally

- (A) Sink wiring (positive logic)
- (B) Source wiring (negative logic)