

Product availability: Stock - Normally stocked in distribution facility



Main

Range of product	Modicon TM3
Product or component type	Discrete I/O module
Range compatibility	Modicon M241 Modicon M251 Modicon M221
Discrete input number	16 input conforming to IEC 61131-2 Type 1
Discrete input logic	Sink or source (positive/negative)
Discrete input voltage	24 V
Discrete input current	7 mA input
Discrete output type	Relay normally open
Discrete output number	8
Discrete output logic	Positive or negative
Discrete output voltage	24 V DC relay output 240 V AC relay output
Discrete output current	2000 mA relay output

Complementary

Discrete I/O number	24
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 input
Current state 1 guaranteed	>= 2.5 mA for input
Voltage state 0 guaranteed	0...5 V input
Current state 0 guaranteed	<= 1 mA for input
Input impedance	3.4 kOhm
Response time	4 ms turn-on 4 ms turn-off
Current per output common	7 A
Mechanical durability	20000000 cycles
Minimum load	10 mA at 5 V DC relay output
Local signalling	1 LED per channel green I/O state
Electrical connection	Removable screw terminal block pitch 3.81 mm with 17 terminal(s) of 1.5 mm ² connection capacity for inputs Removable screw terminal block pitch 3.81 mm with 11 terminal(s) of 1.5 mm ² connection capacity for outputs
Insulation	Non-insulated between inputs 500 V AC between output and internal logic Non-insulated between outputs 500 V AC between input and internal logic 1500 V AC between input groups and output groups 750 V AC between open contact
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	3.54 in (90 mm)
Depth	3.33 in (84.6 mm)
Width	1.69 in (42.9 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	9.14 V/yd (10 V/m) at 80 MHz...1 GHz conforming to EN/IEC 61000-4-3 2.74 V/yd (3 V/m) at 1.4 GHz...2 GHz conforming to EN/IEC 61000-4-3 0.91 V/yd (1 V/m) at 2 GHz...3 GHz conforming to EN/IEC 61000-4-3
Resistance to magnetic fields	30 A/m 50/60 Hz conforming to EN/IEC 61000-4-8
Resistance to fast transients	2 kV relay output conforming to EN/IEC 61000-4-4 1 kV I/O conforming to EN/IEC 61000-4-4
Surge withstand	1 kV input in common mode conforming to EN/IEC 61000-4-5 2 kV output in common mode conforming to EN/IEC 61000-4-5
Resistance to conducted disturbances	10 Vrmsat 0.15...80 MHz conforming to EN/IEC 61000-4-6 3 Vrmsat 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...1000 MHz) conforming to EN/IEC 55011
Ambient air temperature for operation	14...131 °F (-10...55 °C) horizontal installation -10...35 °C vertical installation
Ambient air temperature for storage	-13...158 °F (-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...6561.68 ft (0...2000 m)
Storage altitude	0...9842.52 ft (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)

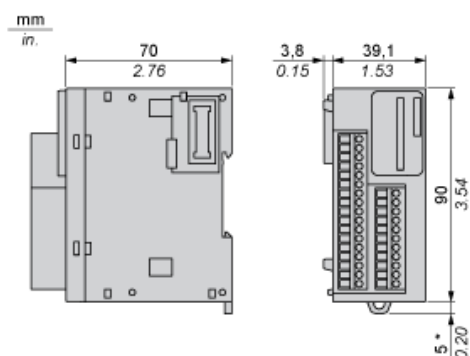
Ordering and shipping details

Category	22533 - M2XX PLC & ACCESSORIES
Discount Schedule	MSX
GTIN	00785901349099
Nbr. of units in pkg.	1
Package weight(Lbs)	0.5899999999999997
Returnability	Y
Country of origin	TW

Offer Sustainability

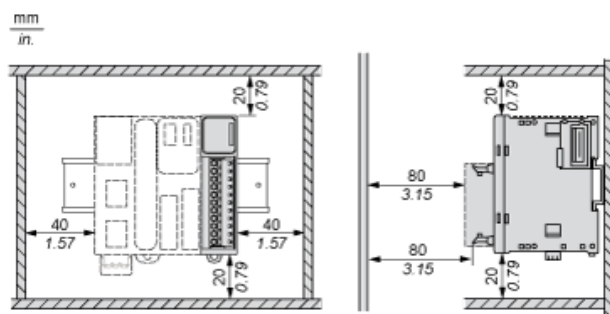
Sustainable offer status	Green Premium product
RoHS (date code: YYWW)	Compliant - since 1348 - Schneider Electric declaration of conformity Schneider Electric declaration of conformity
REACH	Reference not containing SVHC above the threshold
Product environmental profile	Available
Product end of life instructions	Available
California proposition 65	WARNING: This product can expose you to chemicals including:
- - - - - Substance 1	Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm.
- - - - - More information	For more information go to www.p65warnings.ca.gov

Dimensions

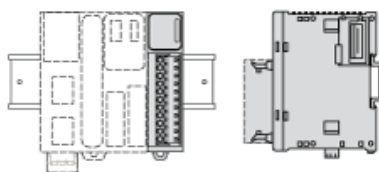


(*) 8.5 mm/0.33 in. when the clamp is pulled out.

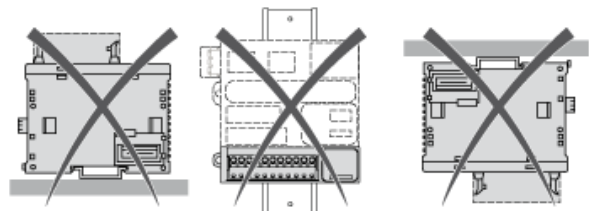
Spacing Requirements



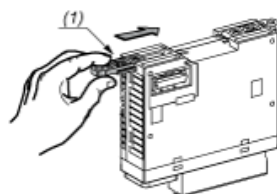
Mounting on a Rail



Incorrect Mounting

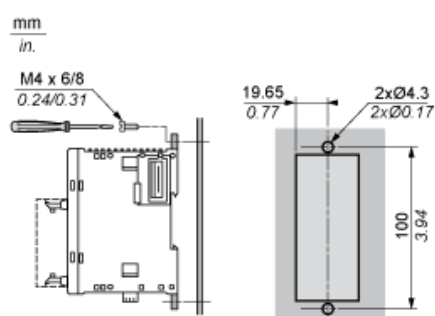


Mounting on a Panel Surface



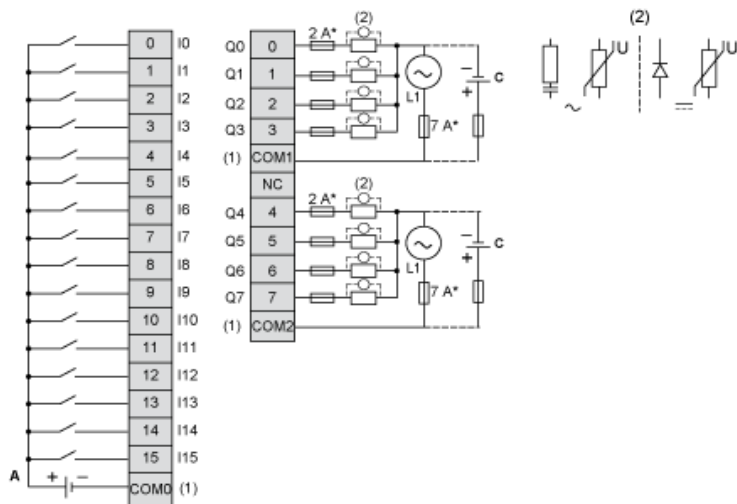
(1) Install a mounting strip

Mounting Hole Layout



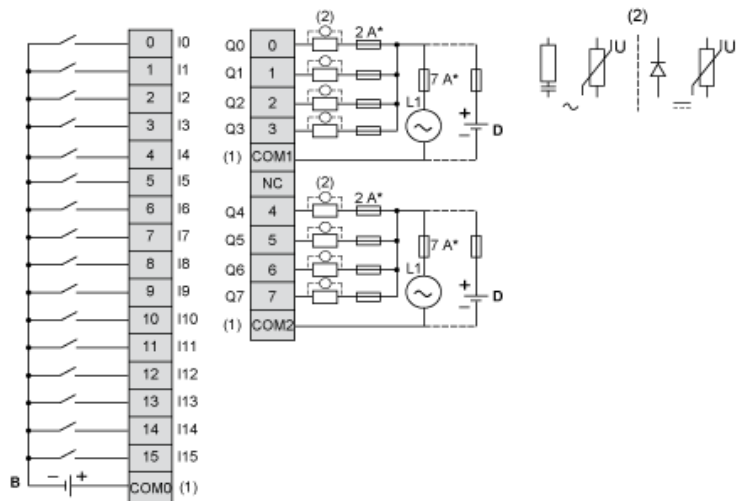
Digital Mixed I/O Module (24-channel)

Wiring Diagram (Source)



- (*) Type T fuse
- (1) The COM0, COM1 and COM2 terminals are not connected internally.
- (2) To improve the life time of the contacts, and to protect from potential inductive load damage, it is recommended to connect a free wheeling diode in parallel to each inductive DC load or an RC snubber in parallel of each inductive AC load.
- (A) Sink wiring (positive logic)
- (C) Source wiring (positive logic)

Wiring Diagram (Sink)



- (*) Type T fuse
- (1) The COM0, COM1 and COM2 terminals are not connected internally.
- (2) To improve the life time of the contacts, and to protect from potential inductive load damage, it is recommended to connect a free wheeling diode in parallel to each inductive DC load or an RC snubber in parallel of each inductive AC load.
- (B) Source wiring (negative logic)
- (D) Sink wiring (negative logic)

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