

# TM3DQ8R

Discrete output module, Modicon TM3, 8 relay outputs (screw) 24 VDC



## Main

Range of product	Modicon TM3
Product or component type	Discrete output module
Range compatibility	Modicon M241 Modicon M251 Modicon M221 Modicon M262
Discrete output type	Relay normally open
Discrete output number	8
Discrete output logic	Positive or negative
Discrete output voltage	24 V DC for relay output 240 V AC
Discrete output current	2000 mA for relay output

## Complementary

Discrete I/O number	8
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 off) 40 mA at 24 V DC via bus connector (at state on) 30 mA at 5 V DC via bus connector (at state on)
Response time	10 ms (turn-on) 5 ms (turn-off)
Mechanical durability	20000000 cycles
Minimum load	10 mA at 5 V DC for relay output
Local signalling	1 LED per channel (green) for output status
Electrical connection	11 x 2.5 mm <sup>2</sup> removable screw terminal block with pitch 5.08 mm adjustment for outputs
Maximum cable distance between devices	Unshielded cable: <30 m for relay output
Insulation	Between output and internal logic at 2300 V AC Between outputs at 750 V AC Between output groups at 1500 V AC

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
Net weight	0.11 kg

## Environment

Standards	EN/IEC 61010-2-201 EN/IEC 61131-2
Product certifications	C-Tick CULus
Resistance to electrostatic discharge	8 kV in air conforming to EN/IEC 61000-4-2 4 kV on contact conforming to EN/IEC 61000-4-2
Resistance to electromagnetic fields	10 V/m 80 MHz...1 GHz conforming to EN/IEC 61000-4-3 3 V/m 1.4 GHz...2 GHz conforming to EN/IEC 61000-4-3 1 V/m 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 for relay output conforming to EN/IEC 61000-4-4
Surge withstand	1 kV I/O common mode conforming to EN/IEC 61000-4-5 DC
Resistance to conducted disturbances	10 V 0.15...80 MHz conforming to EN/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 EN/IEC 55011 Radiated emissions - test level: 47 dBμV/m QP class A ( 10 m) at 230...1000 MHz conforming to EN/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

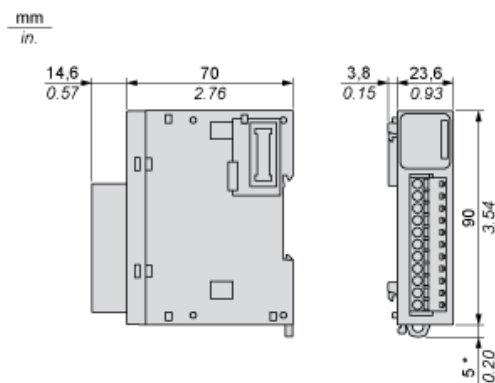
## Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Weight	240 g
Package 1 Height	7.519 cm
Package 1 width	10.487 cm
Package 1 Length	12.849 cm
Unit Type of Package 2	S04
Number of Units in Package 2	42
Package 2 Weight	10.62 kg
Package 2 Height	30 cm
Package 2 width	40 cm
Package 2 Length	60 cm

## Offer Sustainability

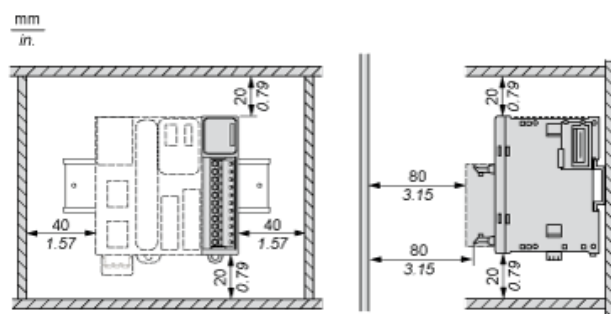
Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
REACH free of SVHC	Yes
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
Toxic heavy metal free	Yes
Mercury free	Yes
RoHS exemption information	<a href="#">Yes</a>
China RoHS Regulation	<a href="#">China RoHS declaration</a>
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Circularity Profile	<a href="#">End of Life Information</a>
WEEE	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins
PVC free	Yes

Dimensions



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

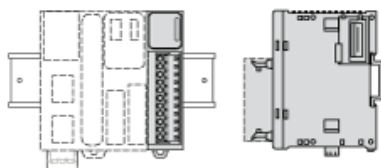
## Spacing Requirements



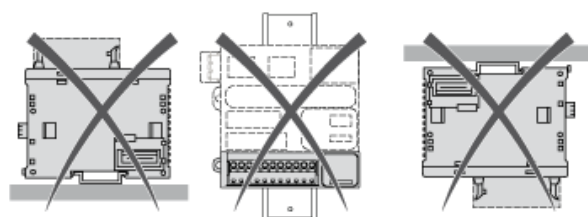
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Mounting on a Rail

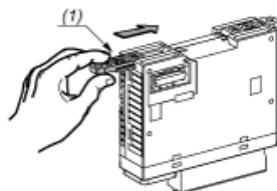
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Incorrect Mounting

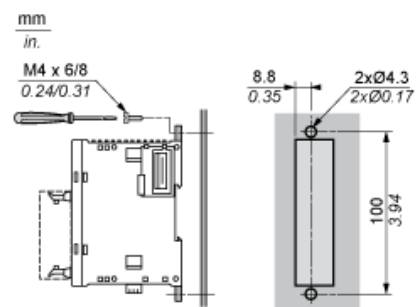


## Mounting on a Panel Surface



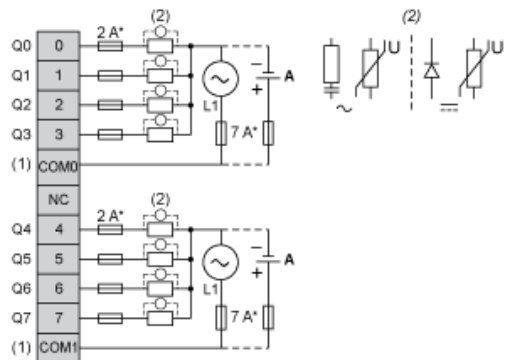
- (1) Install a mounting strip

## Mounting Hole Layout



## Digital Relay Output Module (8-channel)

### Wiring Diagram (Positive Logic)



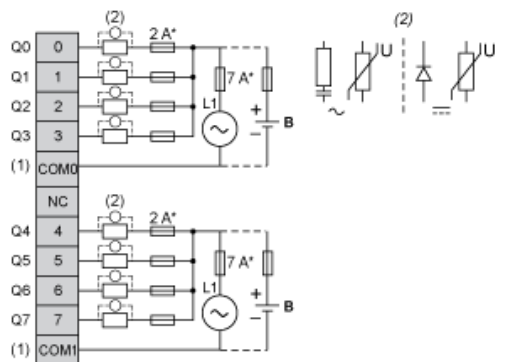
(\*) Type T Fuse

(1) The COM0 and COM1 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 with the load.

(A) Source wiring (positive logic)

### Wiring Diagram (Negative Logic)



(\*) Type T fuse

(1) The COM0 and COM1 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 with the load.

(B) Sink wiring (negative logic)