

# Product datasheet

Specifications



## Discrete I/O module, Modicon TM3, 16 IO (8 digital inputs, 8 digital outputs, screw)

TM3RDM16R

### Main

Range of product	Modicon TM3
Product or component type	Discrete I/O module
Range compatibility	Modicon Easy M200
Discrete input number	8 for 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
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 for relay output
Discrete output current	2000 mA for relay output

### Complementary

Discrete I/O number	16
Current consumption	70 mA at 5 V DC via bus connector (at state on) 40 mA at 24 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	$\geq 2.5$ mA (input)
Voltage state 0 guaranteed	0...5 V for input
Current state 0 guaranteed	$\leq 1$ mA (input)
Input impedance	4.7 kOhm
Response time	4 ms (turn-on) 4 ms (turn-off)
Maximum current per output common	4 A
Mechanical durability	20000000 cycles
Minimum load	10 mA at 5 V DC for relay output
Local signalling	1 LED per channel (green) for I/O state

<b>Electrical connection</b>	11 x 1.5 mm <sup>2</sup> removable screw terminal block with pitch 3.81 mm adjustment for outputs 9 x 1.5 mm <sup>2</sup> removable screw terminal block with pitch 3.81 mm adjustment for inputs
<b>Maximum cable distance between devices</b>	Unshielded cable: <50 m for input Unshielded cable: <150 m for output
<b>Insulation</b>	Between input and internal logic at 500 V AC Non-insulated between inputs Between input groups and output groups at 1500 V AC Between open contact at 750 V AC Between output and internal logic at 500 V AC Non-insulated between outputs
<b>Marking</b>	CE
<b>Mounting support</b>	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
<b>Height</b>	90 mm
<b>Depth</b>	84.6 mm
<b>Width</b>	27.4 mm
<b>Net weight</b>	0.118 kg

## Environment

<b>Resistance to electrostatic discharge</b>	8 kV in air conforming to EN/IEC 61000-4-2 6 kV on contact conforming to EN/IEC 61000-4-2
<b>Resistance to electromagnetic fields</b>	10 V/m 80 MHz...1 GHz conforming to EN/IEC 61000-4-3
<b>Resistance to magnetic fields</b>	30 A/m 50/60 Hz conforming to EN/IEC 61000-4-8
<b>Resistance to fast transients</b>	2 kV for relay output conforming to EN/IEC 61000-4-4 1 kV for input conforming to EN/IEC 61000-4-4
<b>Surge withstand</b>	2 kV output common mode conforming to EN/IEC 61000-4-5 1 kV input common mode conforming to EN/IEC 61000-4-5
<b>Resistance to conducted disturbances</b>	10 V 0.15...80 MHz conforming to EN/IEC 61000-4-6
<b>Electromagnetic emission</b>	Radiated emissions - test level: 40 dB $\mu$ V/m QP class A ( 10 m) at 30...230 MHz conforming to EN/IEC 55011 Radiated emissions - test level: 47 dB $\mu$ V/m QP class A ( 10 m) at 230...1000 MHz conforming to EN/IEC 55011
<b>Ambient air temperature for operation</b>	0...55 °C horizontal installation
<b>Ambient air temperature for storage</b>	-25...70 °C
<b>Relative humidity</b>	10...95 %, without condensation (in operation) 10...95 %, without condensation (in storage)
<b>IP degree of protection</b>	IP20 with protective cover in place
<b>Pollution degree</b>	2
<b>Operating altitude</b>	0...2000 m
<b>Storage altitude</b>	0...3000 m
<b>Vibration resistance</b>	3.5 mm at 5...8.4 Hz on DIN rail 1 gn at 8.4...150 Hz on DIN rail 3.5 mm at 5...8.7 Hz on panel 2 gn at 8.7...150 Hz on panel
<b>Shock resistance</b>	15 gn for 11 ms

## Packing Units

<b>Unit Type of Package 1</b>	PCE
<b>Number of Units in Package 1</b>	1
<b>Package 1 Height</b>	12.4 cm
<b>Package 1 Width</b>	7.2 cm

Package 1 Length	10.3 cm
Package 1 Weight	190 g
Unit Type of Package 2	S03
Number of Units in Package 2	26
Package 2 Height	30 cm
Package 2 Width	30 cm
Package 2 Length	40 cm
Package 2 Weight	5440 g
Unit Type of Package 3	P12
Number of Units in Package 3	624
Package 3 Height	80 cm
Package 3 Width	120 cm
Package 3 Length	105 cm
Package 3 Weight	139560 g

## Offer Sustainability

Sustainable offer status	Green Premium product
REACH Regulation	<a href="#">REACH Declaration</a>
EU RoHS Directive	Pro-active compliance (Product out of EU RoHS legal scope) <a href="#">EU RoHS Declaration</a>
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

## Recommended replacement(s)