Product data sheet
Characteristics

TM3DM24R
discrete IO module, Modicon TM3, 24 IO, 16 inputs, 8 relay outputs, screw, 24V DC



Main

Range of product	Modicon TM3
Product or component type	Discrete I/O module
Range compatibility	Modicon M241 Modicon M251 Modicon M221 Modicon M262
Device application	Industrial application
Discrete input number	16
Discrete input logic	Sink or source (positive/negative)
Discrete output number	8
Discrete output logic	Positive or negative
Discrete output voltage	24 V DC for relay outputs 240 V AC for relay outputs

Complementary

Discrete input number	16 conforming to IEC 61131-2 Type 1
Discrete input current	7 MA
Voltage state 1 guaranteed	Input: 15...28.8 V DC
Voltage state 0 guaranteed	0...5 V input
Current state 1 guaranteed	>= 2.5 mA input
Current state 0 guaranteed	<= 1 mA input
Input impedance	3.4 kOhm
Response time on input	4 ms (maximum (turn on)) 4 ms (maximum (turn off))
Discrete output number	8 relay normally open
Discrete output current	2000 mA relay output
Minimum switching current	10 MA 5 V DC
Response time on output	<= 10 ms maximum (turn on) <= 5 ms maximum (turn off)
Mechanical durability	20000000 Cycles
Safety reliability data	MTBF = 130 years 40 °C
Power supply type	Electronic powered by internal bus
Typical current consumption	5 MA at 5 V DC 0 MA at 24 V DC 65 MA at 5 V DC
Electrical connection	17 x 1.5 mm² removable screw terminal block with pitch 3.81 mm adjustment for inputs 11 x 1.5 mm² removable screw terminal block with pitch 3.81 mm adjustment for outputs
Maximum cable distance between devices	Unshielded cable: <30 m for regular input
Local signalling	1 LED per channel (green) for I/O state
Housing colour	Grey

AWG gauge	0.2…1.5 Mm² / 26 AWG...16 AWG with solid cable
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
Width	42.9 Mm
Depth	84.6 Mm

Environment

IP degree of protection	IP20
Protective treatment	None
Marking	CE
Product certifications	CE[RETURN]CULus[RETURN]UKCA[RETURN]RCM[RETURN]EAC[RETURN]CULus HazLoc
Standards	IEC 61131-2
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 for operation 10…95 % without condensation for storage
Operating altitude	0...2000 m
Pollution degree	2
Vibration resistance	3.5 mm (f = 5…8.4 Hz) on DIN rail 3 gn (f = 8.4…150 Hz) on DIN rail 3.5 mm (f = 5…8.4 Hz) on panel mounting 3 gn (f = 8.4…150 Hz) on panel mounting
Shock resistance	15 gn for 11 ms

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.000 Cm
Package 1 Width	10.000 Cm
Package 1 Length	13.000 Cm
Package 1 Weight	276.000 G
Unit Type of Package 2	S04
Number of Units in Package 2	42
Package 2 Height	30.000 Cm
Package 2 Width	40.000 Cm
Package 2 Length	60.000 Cm
Package 2 Weight	12.272 Kg
Unit Type of Package 3	P12
Number of Units in Package 3	504
Package 3 Height	105.000 Cm
Package 3 Width	80.000 Cm
Package 3 Length	120.000 Cm
Package 3 Weight	144.000 Kg

Offer Sustainability

Recyclability potential, in %	3
Total lifecycle Carbon footprint	26 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	12.108085202500234
Carbon footprint of the manufacturing phase [A1 to A3]	12 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.04184696426648681
Carbon footprint of the distribution phase [A4]	0 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.004935007455936097
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	13.281109666131774

Carbon footprint of the use phase [B2, B3, B4, B6]	13 kg CO2 eq.
Toxic heavy metal free	Yes
Mercury free	Yes
Sustainable packaging	Yes
Carbon footprint of the end-of-life phase [C1 to C4]	0.4480772420539808
Carbon footprint of the end-of-life phase [C1 to C4]	0.4 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	26
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, w
PVC free	Yes
End of life manual availability	End Of Life Information
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection a

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised