

Product data sheet

Specifications



network switch module, Modicon M241, 4 Ethernet switches

TM4ES4

Main

Product Or Component Type Ethernet unmanaged switch

Complementary

Range Compatibility Modicon M251
Modicon M241

Product Compatibility Modicon M241 logic controller
Modicon M251 logic controller

Current Consumption 360 mA 5 V DC communication bus

Integrated Connection Type Ethernet 4 RJ45

Transmission Rate 10/100 Mbit/s

Port Ethernet 10BASE-T/100BASE-TX - 4 copper cable

Web Services Web server

Communication Service Modbus TCP server
Modbus TCP slave device
FTP
NGVL
Monitoring
IEC VAR ACCESS
Programming
SNMP
Modbus TCP client
Downloading
Updating firmware
Ethernet/IP slave device
DHCP client

Maximum Number Of Connections 8 Modbus server
16 Ethernet/IP device

Communication Port Protocol Ethernet IP/Modbus TCP
TCP (Transmission Control Protocol)
UDP (User Datagram Protocol)
SNMP

Redundancy No

Local Signalling PWR 1 LED green)
Ethernet link 1 LED per channel green/yellow)
Ethernet port activity 1 LED per channel green)

Electrical Connection RJ45 4 connectors for connecting Ethernet network
Screw connector terminal for connecting the functional ground

Marking CE

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Surge Withstand	1 kV power lines (DC) common mode IEC 61000-4-5 2 kV power lines (AC) common mode IEC 61000-4-5 2 kV relay output common mode IEC 61000-4-5 1 kV I/O common mode IEC 61000-4-5 1 kV shielded cable common mode IEC 61000-4-5 0.5 kV power lines (DC) differential mode IEC 61000-4-5 1 kV power lines (AC) differential mode IEC 61000-4-5 1 kV relay output differential mode IEC 61000-4-5 0.5 kV I/O differential mode IEC 61000-4-5
Mounting Support	Top hat type TH35-15 rail IEC 60715 Top hat type TH35-7.5 rail IEC 60715 plate or panel with fixing kit
Width	0.98 in (25 mm)
Height	3.54 in (90 mm)
Depth	3.54 in (90 mm)
Net Weight	0.28 lb(US) (0.125 kg)

Environment

Standards	UL 508 IEC 61131-2
Product Certifications	cULus C-Tick
Resistance To Electrostatic Discharge	8 kV in air IEC 61000-4-2 4 kV on contact IEC 61000-4-2 8 kV in air Marine specification (LR, ABS, DNV, GL) 6 kV on contact Marine specification (LR, ABS, DNV, GL)
Resistance To Electromagnetic Fields	9.14 V/yd (10 V/m) 80 MHz...1 GHz IEC 61000-4-3 2.74 V/yd (3 V/m) 1.4 GHz...2 GHz IEC 61000-4-3 0.91 V/yd (1 V/m) 2...2.7 GHz IEC 61000-4-3
Resistance To Fast Transients	2 kV IEC 61000-4-4 power lines) 2 kV IEC 61000-4-4 relay output) 1.5 kV IEC 61000-4-4 I/O) 1 kV IEC 61000-4-4 Ethernet line) 1 kV IEC 61000-4-4 serial link)
Resistance To Conducted Disturbances	10 V 0.15...80 MHz IEC 61000-4-6 3 V 0.1...80 MHz Marine specification (LR, ABS, DNV, GL) 10 V spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz) Marine specification (LR, ABS, DNV, GL)
Electromagnetic Emission	Conducted emissions 79 dB μ V/m QP/66 dB μ V/m AV power lines (AC))0.15...0.5 MHz IEC 55011 Conducted emissions 73 dB μ V/m QP/60 dB μ V/m AV power lines (AC))0.5...300 MHz IEC 55011 Conducted emissions 120...69 dB μ V/m QP power lines)10...150 kHz IEC 55011 Conducted emissions 63 dB μ V/m QP power lines)1.5...30 MHz IEC 55011 Radiated emissions 40 dB μ V/m QP class A30...230 MHz IEC 55011 Radiated emissions 60...54 dB μ V/m QP30...100 MHz Marine specification (LR, ABS, DNV, GL) Radiated emissions 24 dB μ V/m QP156...165 MHz Marine specification (LR, ABS, DNV, GL) Conducted emissions 79...63 dB μ V/m QP power lines)150...1500 kHz IEC 55011 Radiated emissions 47 dB μ V/m QP class A230...1000 MHz IEC 55011 Radiated emissions 80...50 dB μ V/m QP150...30000 kHz Marine specification (LR, ABS, DNV, GL) Radiated emissions 54 dB μ V/m QP100...2000 MHz Marine specification (LR, ABS, DNV, GL)
Ambient Air Temperature For Operation	14...131 °F (-10...55 °C) horizontal installation 14...122 °F (-10...50 °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...2000 m
Storage Altitude	0.00...9842.52 ft (0...3000 m)
Vibration Resistance	1 mm 5...13.2 Hz symmetrical rail 3 gn 8.7...150 Hz symmetrical rail 1 mm 5...13.2 Hz panel mounting 0.7 gn 13.2...100 Hz panel mounting
Shock Resistance	15 gn 11 ms

Packing Units

Unit Type Of Package 1	PCE
Number Of Units In Package 1	1
Package 1 Height	2.22 in (5.635 cm)
Package 1 Width	4.54 in (11.532 cm)
Package 1 Length	6.71 in (17.033 cm)
Package 1 Weight	7.41 oz (210.0 g)
Unit Type Of Package 2	S03
Number Of Units In Package 2	20
Package 2 Height	11.81 in (30 cm)
Package 2 Width	11.81 in (30 cm)
Package 2 Length	15.75 in (40 cm)
Package 2 Weight	11.11 lb(US) (5.04 kg)
Unit Type Of Package 3	P06
Number Of Units In Package 3	160
Package 3 Height	29.53 in (75 cm)
Package 3 Width	23.62 in (60 cm)
Package 3 Length	31.50 in (80 cm)
Package 3 Weight	105.82 lb(US) (48 kg)

Sustainability

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Guide to assessing product sustainability is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

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[Guide to assess a product's sustainability >](#)



Transparency RoHS/REACH

Well-being performance

Mercury Free

Rohs Exemption Information Yes

Pvc Free

Certifications & Standards

Reach Regulation

[REACH Declaration](#)

Eu Rohs Directive

Pro-active compliance (Product out of EU RoHS legal scope)

China Rohs Regulation

[China RoHS declaration](#)

Environmental Disclosure

[Product Environmental Profile](#)

Weee

The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile

[End of Life Information](#)