Product data sheet

Specifications

Green Premium™

logic controller, Modicon M251, 2x Ethernet

TM251MESE

Product availability: Stock - Normally stocked in distribution facility

Price*: 519.00 USD

Main

Range Of Product	Modicon M251
Product Or Component Type	Logic controller
[Us] Rated Supply Voltage	24 V DC

Complementary

Maximum Number Of I/O Expansion Module	7 (local I/O-Architecture) 14 (remote I/O-Architecture)
Supply Voltage Limits	20.4…28.8 V
Inrush Current	50 A
Power Consumption In W	32.6…40.4 W with max number of I/O expansion module)
Memory Capacity	64 MB system memory RAM
Data Backed Up	128 MB built-in flash memory backup of user programs
Data Storage Equipment	<= 16 GB SD card optional)
Battery Type	BR2032 lithium non-rechargeable 4 year(s)
Backup Time	2 years 77 °F (25 °C)
Execution Time For 1 Kinstruction	0.3 ms event and periodic task 0.7 ms other instruction
Application Structure	4 cyclic master tasks 8 event tasks 3 cyclic master tasks + 1 freewheeling task 8 external event tasks
Realtime Clock	With
Clock Drift	<= 60 s/month 77 °F (25 °C)
Integrated Connection Type	USB port mini B USB 2.0 Non isolated serial link serial RJ45 RS232/RS485 Dual-port Ethernet 1 RJ45 Ethernet port Ethernet 2 RJ45
Supply	Serial)serial link supply 5 V, <200 mA
Transmission Rate	1.2...115.2 kbit/s (115.2 kbit/s by default) 49.21 ft (15 m) RS485 1.2...115.2 kbit/s (115.2 kbit/s by default) 9.84 ft (3 m) RS232 480 Mbit/s 9.84 ft (3 m) USB
Communication Port Protocol	USB port USB - SoMachine-Network Non isolated serial link Modbus master/slave - RTU/ASCII or SoMachine-Network
Port Ethernet	Ethernet 1 10BASE-T/100BASE-TX - 2 copper cable Ethernet 2 10BASE-T/100BASE-TX - 1 copper cable
Web Services	Web server

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Communication Service	Downloading
	IEC VAR ACCESS
	Modbus TCP client
	Modbus TCP server
	Modbus TCP slave device
	Monitoring
	NGVL
	Programming
	Updating firmware
	SMS notifications
	DHCP client Eth1)
	DHCP server Eth2)
	Ethernet/IP originator Eth2)
	Ethernet/IP target Eth1, Eth2)
	Ethernet/IP scanner Eth2)
	Modbus TCP I/O Scanner and Messaging Eth2)
	FDR
	FTP client/server
	SNMP client/server
	SQL client
	Send and receive email from the controller based on TCP/UDP library
	Web server (WebVisu & XWeb system)
	OPC UA server
	DNS client
Maximum Number Of Connections	8 Modbus server
	8 Modbus client
	16 Ethernet/IP target
	4 FTP server
	10 web server
	8 SoMachine protocol
Number Of Server Device(S)	16 EtherNet/IP
	64 Modbus TCP
Cycle Time	10 ms 16 EtherNet/IP
	64 ms 64 Modbus TCP
Local Signalling	for PWR 1 LED (green)
	for RUN 1 LED (green)
	for module error (ERR) 1 LED (red)
	for I/O error (I/O) 1 LED (red)
	for SD card access (SD) 1 LED (green)
	for BAT 1 LED (red)
	for SL 1 LED (green)
	for bus fault on TM4 (TM4) 1 LED (red)
	for Ethernet activity (ETH1) 1 LED (green)
	for Ethernet activity (ETH2) 1 LED (green)
Electrical Connection	removable screw terminal block power supply pitch 5.08 mm)
Insulation	Non-insulated between supply and internal logic
	Between supply and ground 500 V AC
Marking	CE
Surge Withstand	1 kV shielded cable common mode IEC 61000-4-5
	1 kV power lines common mode IEC 61000-4-5
	0.5 kV power lines 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
Height	3.54 in (90 mm)
Depth	3.74 in (95 mm)
Width	2.13 in (54 mm)
Net Weight	0.49 lb(US) (0.22 kg)

Environment

Standards	ANSI/ISA 12-12-01 CSA C22.2 No 142 CSA C22.2 No 213 IEC 61131-2:2007 Marine specification (LR, ABS, DNV, GL) UL 508
Product Certifications	cULus CE UKCA DNV-GL ABS LR
Resistance To Electrostatic Discharge	8 kV in air IEC 61000-4-2 4 kV on contact IEC 61000-4-2
Resistance To Electromagnetic Fields	9.14 V/m (10 V/m) 80 MHz...1 GHz IEC 61000-4-3 2.74 V/m (3 V/m) 1.4 GHz...2 GHz IEC 61000-4-3 0.91 V/m (1 V/m) 2 GHz...3 GHz IEC 61000-4-3
Resistance To Fast Transients	2 kV IEC 61000-4-4 power lines) 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 120...69 dBµV/m QP power lines)10…150 kHz IEC 55011 Conducted emissions 63 dBµV/m QP power lines)1.5…30 MHz IEC 55011 Radiated emissions 40 dBµV/m QP class A 10 m)30…230 MHz IEC 55011 Conducted emissions 79...63 dBµV/m QP power lines)150…1500 kHz IEC 55011 Radiated emissions 47 dBµV/m QP class A 10 m)230…1000 MHz IEC 55011
Immunity To Microbreaks	10 ms
Ambient Air Temperature For Operation	14…95 °F (-10…35 °C) vertical installation) 14…131 °F (-10…55 °C) horizontal 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	0.00…9842.52 ft (0…3000 m)
Vibration Resistance	3.5 mm 5…8.4 Hz symmetrical rail 3 gn 8.4…150 Hz symmetrical rail 3.5 mm 5…8.4 Hz panel mounting 3 gn 8.4…150 Hz panel mounting
Shock Resistance	15 gn 11 ms

Ordering and shipping details

Category	US10MSX22533
Discount Schedule	0MSX
Gtin	3606480648878
Returnability	Yes
Country Of Origin	FR

Packing Units

Unit Type Of Package 1	PCE

Number Of Units In Package 1	1
Package 1 Height	4.14 in (10.511 cm)
Package 1 Width	4.62 in (11.725 cm)
Package 1 Length	6.72 in (17.063 cm)
Package 1 Weight	13.09 oz (371.0 g)
Unit Type Of Package 2	S03
Number Of Units In Package 2	10
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	10.25 lb(US) (4.651 kg)
Unit Type Of Package 3	P06
Number Of Units In Package 3	80
Package 3 Height	29.53 in (75.0 cm)
Package 3 Width	15.75 in (40.0 cm)
Package 3 Length	31.50 in (80.0 cm)
Package 3 Weight	105.82 lb(US) (48 kg)

Sustainability

Green Premium^{TM} label is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO_2 products.

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

Learn more about Green Premium 〉

Guide to assess a product's sustainability 〉

Transparency   RoHS/REACh

Well-being performance

✓ Mercury Free

_____

✓ Rohs Exemption Information   Yes

_____

✓ Pvc Free

_____
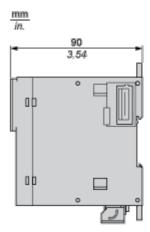
Certifications & Standards
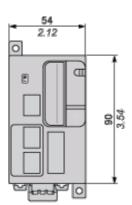
Reach Regulation   REACh Declaration

_____

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

_____

California Proposition 65   WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov
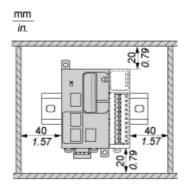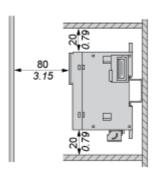
Dimensions Drawings
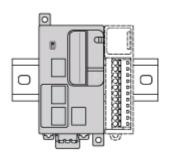
Dimensions

Life Is On | Schneider Electric

Mounting and Clearance

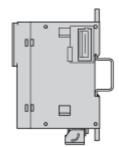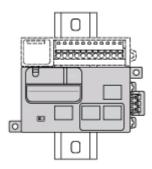**Clearance**

Mounting Position

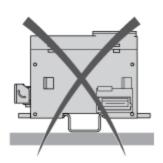

NOTE: Keep adequate spacing for proper ventilation and to maintain an ambient temperature between -10°C (14°F) and 55°C (131°F).
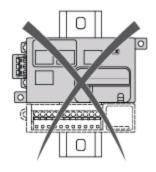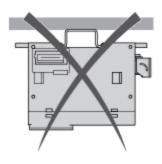
Acceptable Mounting

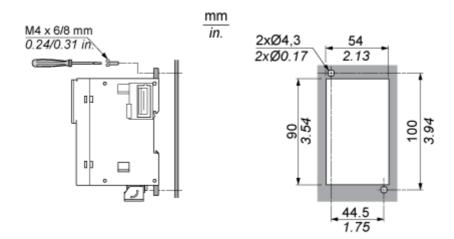NOTE: Expansion modules must be mounted above the controller.

Incorrect Mounting

Direct Mounting on a Panel Surface

Connections and Schema

USB Connection to a PC

USB

USB Mini-B

Ethernet Connection to a PC