Product data sheet

Specifications

dPAC module, Modicon M251

TM251MDESE

Product availability: Stock - Normally stocked in distribution facility

Price*: 357.90 USD

Main

Range of Product	Modicon M251
Product or Component Type	Processor module
[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	19.2…28.8 V
Power consumption in W	45 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)
Realtime clock	With
Clock drift	<= 60 s/month 14…122 °F (-10…50 °C)
Integrated connection type	USB port mini B USB 2.0 Non isolated serial link serial RJ45 RS232/RS485 Dual-port Ethernet 1 2 RJ45 Ethernet port Ethernet 2 RJ45
Port Ethernet	Ethernet 10BASE-T/100BASE-TX - 2 copper cable
Communication service	Modbus TCP client Modbus TCP server OPC UA server NTP client
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)
Electrical connection	removable screw terminal block power supply pitch 3.81 mm)
marking	CE
Surge withstand	1 kV shielded cable common mode EN/IEC 61000-4-5 1 kV power lines common mode EN/IEC 61000-4-5 0.5 kV power lines differential mode EN/IEC 61000-4-5

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

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	3.5 in (90 mm)
Depth	3.5 in (90 mm)
Width	2.1 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 EN/IEC 61131-2 UL 508
Product Certifications	cULus CSA RCM CE Achilles UKCA
Resistance to electrostatic discharge	8 kV in air EN/IEC 61000-4-2 4 kV on contact EN/IEC 61000-4-2
Resistance to electromagnetic fields	9.1 V/m (10 V/m) 80 MHz...1 GHz EN/IEC 61000-4-3 2.7 V/m (3 V/m) 1.4 GHz...2 GHz EN/IEC 61000-4-3 0.9 V/m (1 V/m) 2 GHz...3 GHz EN/IEC 61000-4-3
Resistance to fast transients	2 kV EN/IEC 61000-4-4 power lines) 1 kV EN/IEC 61000-4-4 Ethernet line) 1 kV EN/IEC 61000-4-4 serial link)
Resistance to conducted disturbances	10 V 80...1000 MHz EN/IEC 61000-4-3 3 V 1.4 GHz...2 GHz EN/IEC 61000-4-3 1 V 2 GHz...3 GHz EN/IEC 61000-4-3
Electromagnetic emission	Conducted emissions 120...69 dBμV/m QP power lines)10…150 kHz IEC 61000-6-4 Conducted emissions 63 dBμV/m QP power lines)1.5…30 MHz IEC 61000-6-4 Radiated emissions 40 dBμV/m QP class A 10 m)30…230 MHz IEC 61000-6-4 Conducted emissions 79...63 dBμV/m QP power lines)150…1500 kHz IEC 61000-6-4 Radiated emissions 47 dBμV/m QP class A 10 m)230…1000 MHz IEC 61000-6-4
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	-40…158 °F (-40…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	0.0000000000…9842.5 ft (0…3000 m)
Vibration resistance	3.5 mm 5…8.4 Hz symmetrical rail 1 gn 8.4…150 Hz symmetrical rail 3 gn 8.7…150 Hz panel mounting
Shock resistance	15 gn 11 ms

Ordering and shipping details

Category	US1PC1522555

Discount Schedule	PC15
GTIN	03606481906991
Returnability	Yes
Country of origin	ID

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	4.25 in (10.8 cm)
Package 1 Width	4.57 in (11.6 cm)
Package 1 Length	6.61 in (16.8 cm)
Package 1 Weight	12.9 oz (367 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	9.586 lb(US) (4.348 kg)

Sustainability

Green Premium™ 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 >

How we assess product sustainability >

Transparency

Well-being performance

✅ Mercury Free

✅ Rohs Exemption Information   Yes

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.
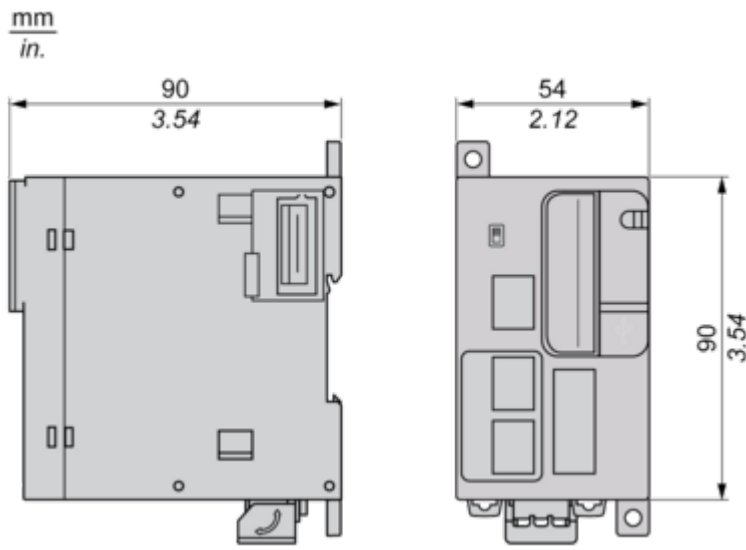

Circularity Profile   End of Life Information

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

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Scip Number   C0f4b1e4-ee0f-48bb-9bdf-1bcc0df7db56
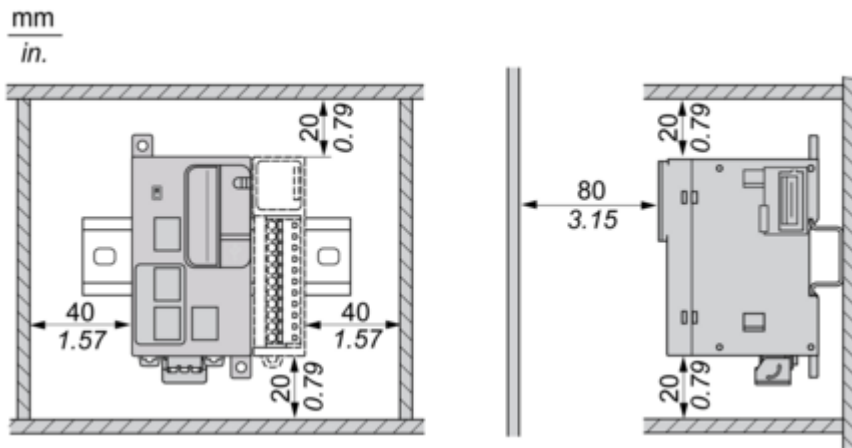
Dimensions Drawings
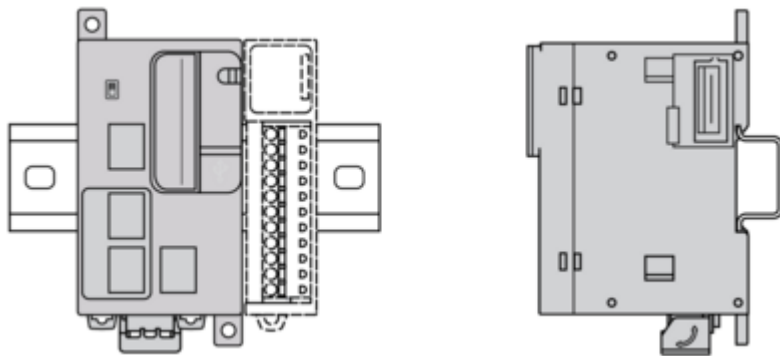
Dimensions

$\dfrac{mm}{in.}$

90
3.54

54
2.12

90
3.54

Mounting and Clearance
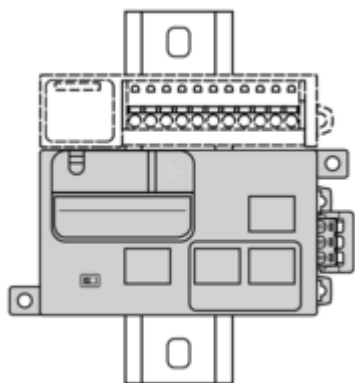
Mounting and Clearance
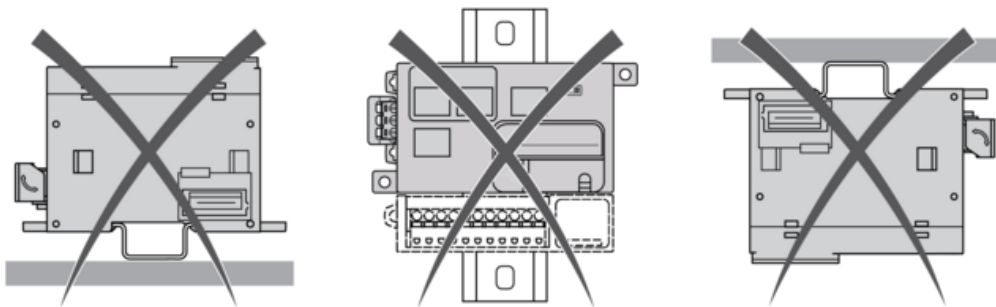
Clearance

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).
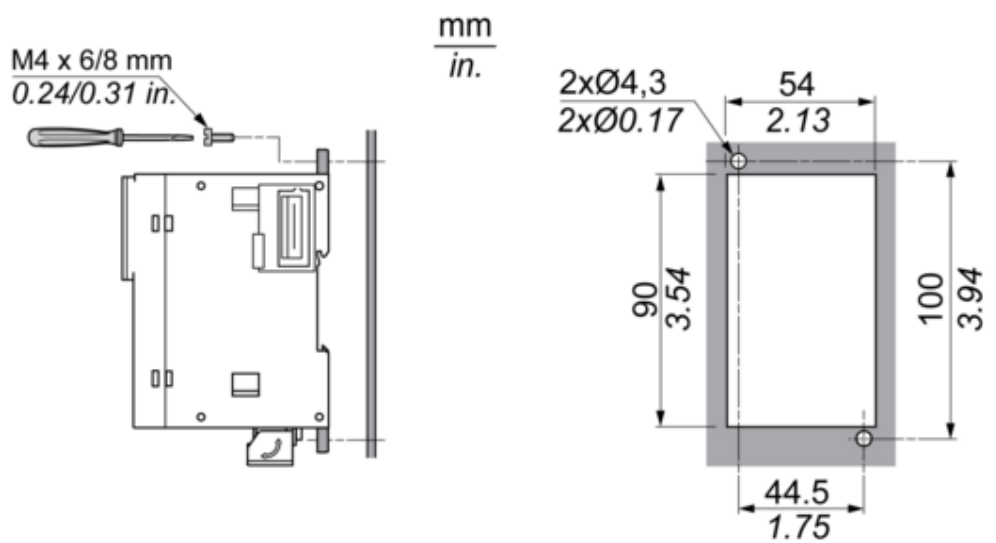
Acceptable Mounting

NOTE: Expansion modules must be mounted above the controller.

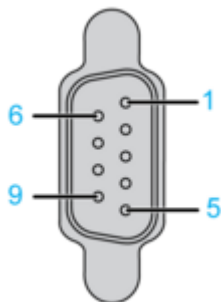**Incorrect Mounting**

Direct Mounting on a Panel Surface

M4 x 6/8 mm
0.24/0.31 in.

$\dfrac{mm}{in.}$

2xØ4,3
2xØ0.17

54
2.13

90
3.54

100
3.94

44.5
1.75

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Connections and Schema

Wiring

USB Connection to a PC

USB — USB Mini-B

Ethernet Connection to a PC

RJ45 — RJ45

CANopen

Pin	Signal	Description
1	–	Reserved
2	CAN_L	CAN_L bus line
3	CAN_GND	CAN ground
4	–	Reserved
5	(CAN_SHLD)	Optional CAN shield
6	GND	Ground
7	CAN_H	CAN_H bus line

Pin	Signal	Description
8	–	Reserved
9	(CAN_V+)	Optional CAN external positive supply

Image of product / Alternate images

Alternative