

# Product data sheet

Specifications



**motion controller, Modicon M262,  
3ns per instruction, 8 axes,  
Ethernet, Sercos**

TM262M25MESS8T

**Product availability: Stock - Normally stocked in distribution facility**

## Main

Range of Product	Logic/motion controller - Modicon M262
Product or Component Type	Motion controller
[Us] rated supply voltage	24 V DC - 15...20 %
Discrete I/O number	8
Upstream connectivity	IIoT-ready machine to cloud Connected machine to plant

## Complementary

Supply voltage limits	20.4...28.8 V DC
PLC Power Consumption	82 W
Inrush current	40 A
Overvoltage protection	With
Discrete input number	4, discrete input fast input IEC 61131-2 Type 1
Discrete input voltage	24 V
Discrete input voltage type	DC
Discrete input logic	Sink
Voltage state 1 guaranteed	$\geq 15$ V DC
Voltage state 0 guaranteed	$\leq 5$ V DC
Discrete input current	7.5 mA fast input
Input impedance	2.81 kOhm input
Response time	$\leq 1$ $\mu$ s turn-on, I0...I3 fast input $\leq 1$ $\mu$ s turn-off, I0...I3 fast input $\leq 1$ $\mu$ s turn-on, Q0...Q3 fast output $\leq 1$ $\mu$ s turn-off, Q0...Q3 fast output
Configurable filtering time	0.001 ms fast input 0.002 ms fast input 0.005 ms fast input 0.01 ms fast input 0.05 ms fast input 0.1 ms fast input 0.5 ms fast input 1 ms fast input 4 ms fast input 12 ms fast input
Discrete output number	4 transistor fast output
Discrete output voltage	24 V DC
Discrete output current	0.5 A fast output Q0...Q3)
Discrete output type	Transistor

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

<b>Discrete output logic</b>	Source
<b>Output voltage limits</b>	30 V DC
<b>Maximum current per output common</b>	0.5 A Q0...Q3 fast output
<b>Maximum output frequency</b>	300 kHz
<b>Accuracy</b>	+/- 0.1 % 0.02...0.1 kHz fast output +/- 1 % 0.1...1 kHz fast output
<b>Maximum leakage current</b>	10 µA output
<b>Maximum tungsten load</b>	<1.5 W
<b>Protection type</b>	Short-circuit and overload protection with automatic reset Reverse polarity protection Short-circuit protection
<b>Reset time</b>	200 ms automatic reset fast output
<b>Maximum number of I/O expansion module</b>	7TM3 IO module (remote I/O-Architecture) 7TM3 IO module (local I/O-Architecture) 64TM3, TM5 or TM7 IO island (distributed I/O-Architecture)
<b>Execution time for 1 Kinstruction</b>	0.003 ms
<b>Memory capacity</b>	32 MB program RAM 32 MB OS/website RAM 192 MB system memory RAM
<b>Data backed up</b>	1 GB built-in flash memory backup of user programs
<b>Data storage equipment</b>	<= 32 GB SDHC card optional)
<b>Backup time</b>	1000 h 77 °F (25 °C)
<b>Application structure</b>	8 event tasks 4 cyclic master tasks 3 cyclic master tasks + 1 freewheeling task 8 external event tasks
<b>Realtime clock</b>	With
<b>Clock drift</b>	<= 10 s/month 77 °F (25 °C)
<b>Cycle time</b>	0.5 ms
<b>Positioning functions</b>	Libraries axes coordinated Libraries axes synchronous Sercos 3 motion bus
<b>Integrated connection type</b>	Ethernet/Sercos 1 RJ45 10/100BASE-T Ethernet 2 2 RJ45 100/1000BASE-T Serial link RJ45 RS232/RS485 1 encoder female SUB-D 15 RS422/SSI Smart Communication Bus TM3 IO bus USB type mini B
<b>Transmission rate</b>	115 kbit/s 49.2 ft (15 m) RS485 115 kbit/s 9.8 ft (3 m) RS232 480 Mbit/s 9.8 ft (3 m) USB 10/100 Mbit/s Ethernet1 10/100/1000 Mbit/s Ethernet2
<b>Communication port protocol</b>	EtherNet/IP adapter EtherNet/IP scanner Modbus TCP client/server Modbus TCP IO scanner Modbus TCP NVL Ethernet RSTP Modbus SL client/server Modbus SL IO scanner Modbus SL modem management Machine Expert ASCII manager ASCII modem management Sercos III master

<b>Maximum Number of Connected Devices</b>	EtherNet/IP: 64 Modbus TCP: 64 Modbus TCP/EtherNet/IP: 128
<b>Communication Service</b>	MQTTs OPC UA server (Encrypt) OPC UA client (Encrypt) HTTP's Methods (API) Web server Web visu TLS 1.2 TLS 1.3 SNTP NTP client/server FTP client/server FTPs server SQL client (remote access) DHCP client DHCP server DNS client POP3s client SMTP client SNMP client/server
<b>Local signalling</b>	1 LED (green/red) for PWR 1 LED (green/red) for RUN 1 LED (green/red) for ERROR (fault) 1 LED (green/red) for stop forced 1 LED (green/red) for I/O error (I/O) 1 LED (green/orange) for SD card activity 1 LED (green/orange) for SL activity 1 LED (green/red) for ETH1 state 1 LED (green/red) for ETH2 state 1 LED (green/red) for EIP MS 1 LED (green/red) for EIP NS 1 LED (green/red) for Sercos
<b>Electrical connection</b>	removable spring terminal block for inputs and outputs removable spring terminal block for connecting the 24 V DC power supply
<b>Product compatibility</b>	External encoder 5/24 V DC no encoder power supply
<b>Maximum cable distance between devices</b>	Shielded cable <9.8 ft (3 m) fast input Shielded cable <9.8 ft (3 m) fast output Unshielded cable <164.04 ft (50 m) input Unshielded cable <164.04 ft (50 m) output Shielded cable <98.4 ft (30 m) RS485 link Shielded cable <49.2 ft (15 m) RS232
<b>Insulation</b>	Between fast input and internal logic 550 V AC Non-insulated between inputs Between output and internal logic 550 V AC Non-insulated between outputs Between input and output 550 V AC Between supply and internal logic 550 V AC Non-insulated between supply and ground
<b>Encoder type</b>	Incremental encoder
<b>Surge withstand</b>	1 kV power lines (DC) common mode IEC 61000-4-5 1 kV shielded cable common mode IEC 61000-4-5 0.5 kV relay output differential mode IEC 61000-4-5 1 kV input common mode IEC 61000-4-5 1 kV transistor output common mode IEC 61000-4-5
<b>Mounting support</b>	Top hat type TH35-15 rail IEC 60715 Top hat type TH35-7.5 rail IEC 60715 plate or panel with fixing kit
<b>Height</b>	3.9 in (100 mm)
<b>Depth</b>	3.5 in (90 mm)
<b>Width</b>	4.9 in (125 mm)
<b>Net Weight</b>	1.48 lb(US) (0.67 kg)

## Environment

<b>Standards</b>	UL 61010-1 UL 61010-2-201 CSA C22.2 No 61010-1 CSA C22.2 No 61010-2-201 CSA C22.2 No 213 ANSI/ISA 12-12-01 IEC 61131-2
<b>Product Certifications</b>	CE cULus cULus HazLoc Class I Division 2 CSA 22-2 No 213 RCM EAC Achilles KC
<b>Resistance to electrostatic discharge</b>	4 kV on contact IEC 61000-4-2 8 kV on air IEC 61000-4-2
<b>Resistance to electromagnetic fields</b>	9.1 V/m (10 V/m) 80 MHz...1 GHz IEC 61000-4-3 2.7 V/m (3 V/m) 1.4 GHz...2 GHz IEC 61000-4-3 0.9 V/m (1 V/m) 2 GHz...3 GHz IEC 61000-4-3
<b>Resistance to fast transients</b>	2 kV IEC 61000-4-4 power lines) 1 kV IEC 61000-4-4 Ethernet line) 1 kV IEC 61000-4-4 serial link) 1 kV IEC 61000-4-4 input) 1 kV IEC 61000-4-4 transistor output)
<b>Resistance to conducted disturbances</b>	10 V 0.15...80 MHz IEC 61000-4-4 3 V 0.1...80 MHz 10 V spot frequency (2, 3, 4, 6.2, 8.2, 12.6, 16.5, 18.8, 22, 25 MHz)
<b>Electromagnetic emission</b>	Conducted emissions 120...69 dB $\mu$ V/m QP power lines)10...150 kHz IEC 55011 Conducted emissions 63 dB $\mu$ V/m QP power lines)1.5...30 MHz IEC 55011 Radiated emissions 40 dB $\mu$ V/m30...230 kHz IEC 55011 Conducted emissions 79...63 dB $\mu$ V/m QP power lines)150...1500 kHz IEC 55011 Radiated emissions 230...1000 MHz IEC 55011
<b>Immunity to microbreaks</b>	0.01 ms
<b>Ambient air temperature for operation</b>	-4...140 °F (-20...60 °C) horizontal installation) -4...122 °F (-20...50 °C) vertical installation) -4...113 °F (-20...45 °C) flat mounting)
<b>Ambient Air Temperature for Storage</b>	-40...185 °F (-40...85 °C)
<b>Relative humidity</b>	10...95 %, without condensation in operation) 10...95 %, without condensation in storage)
<b>IP degree of protection</b>	IP20
<b>Pollution degree</b>	2
<b>Operating altitude</b>	0...6561.68 ft (0...2000 m)
<b>Storage altitude</b>	0...9842.5 ft (0...3000 m)
<b>Vibration resistance</b>	3.5 mm 2...8.4 Hz symmetrical rail 1 gn 8.4...200 Hz symmetrical rail 3.5 mm 2...8.4 Hz panel mounting 1 gn 8.4...200 Hz panel mounting
<b>Shock resistance</b>	15 gn 11 ms

## Ordering and shipping details

<b>Category</b>	US10MSX22534
<b>Discount Schedule</b>	0MSX
<b>GTIN</b>	3606489604219
<b>Returnability</b>	Yes
<b>Country of origin</b>	ID

## Packing Units

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Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	5.4 in (13.8 cm)
Package 1 Width	7.2 in (18.3 cm)
Package 1 Length	5.2 in (13.1 cm)
Package weight(Lbs)	30.0 oz (850.0 g)
Unit Type of Package 2	S03
Number of Units in Package 2	8
Package 2 Height	11.8 in (30 cm)
Package 2 Width	11.8 in (30 cm)
Package 2 Length	15.7 in (40 cm)
Package 2 Weight	16.23 lb(US) (7.36 kg)
Unit Type of Package 3	P06
Number of Units in Package 3	64
Package 3 Height	29.5 in (75.0 cm)
Package 3 Width	15.7 in (40.0 cm)
Package 3 Length	31.5 in (80.0 cm)
Package 3 Weight	153.4 lb(US) (69.6 kg)

## Contractual warranty

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Warranty (in months)	18
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## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Environmental footprint

Total lifecycle Carbon footprint	1 204 kg CO2 eq.
Environmental Disclosure	<a href="#">Product Environmental Profile</a>
Carbon footprint of the manufacturing phase [A1 to A3]	19 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	1 185 kg CO2 eq.
Carbon footprint of the end-of-life phase [C1 to C4]	0.4 kg CO2 eq.

### Use Better

#### Materials and Substances

Packaging made with recycled cardboard	Yes
Packaging without single use plastic	Yes
<a href="#">EU RoHS Directive</a>	Pro-active compliance (Product out of EU RoHS legal scope)
SCIP Number	Aee2b861-0272-4e88-8e3e-89ad0cfa3229
REACH Regulation	<a href="#">REACH Declaration</a>
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 <a href="#">www.P65Warnings.ca.gov</a>
PVC free	Yes

### Use Longer

#### Lifetime extension

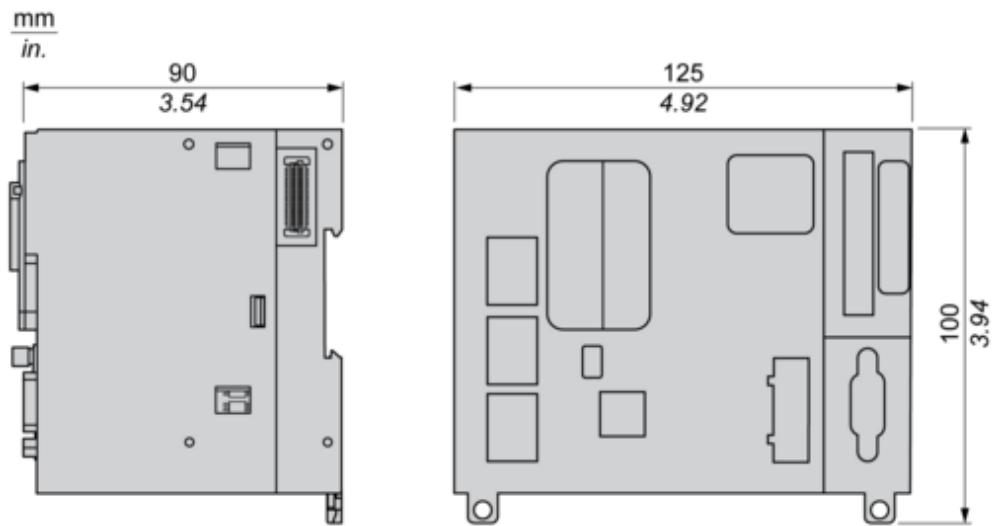
Repair	No
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### Use Again

#### Repack and remanufacture

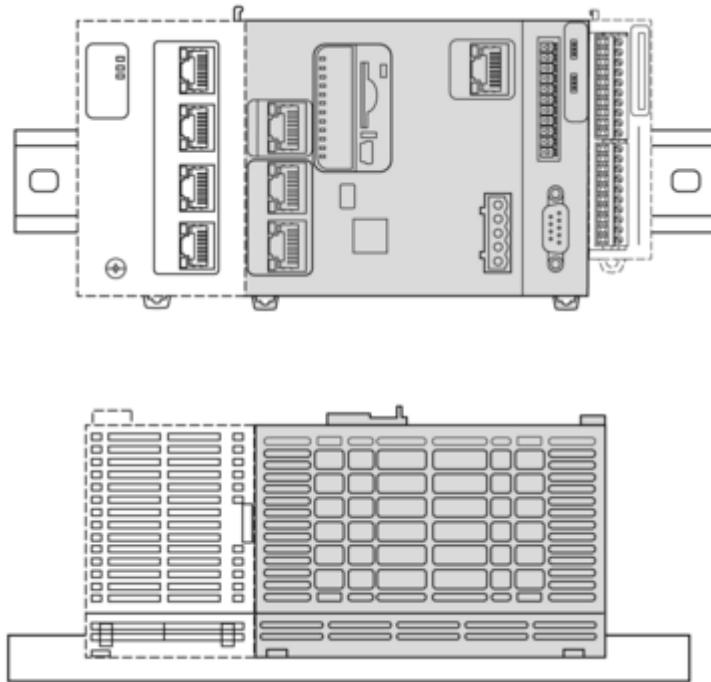
Circularity Profile	<a href="#">End of Life Information</a>
Take-back	No
WEEE Label	The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.

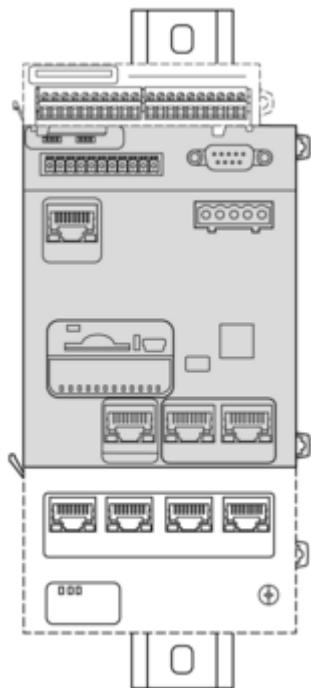
## Dimensions Drawings

Side and Front Views

## Mounting and Clearance

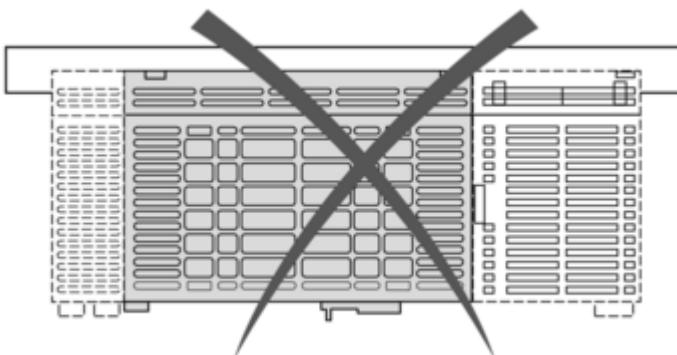
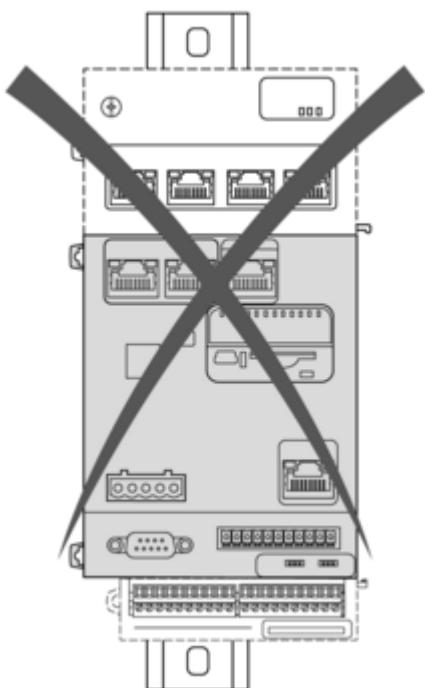
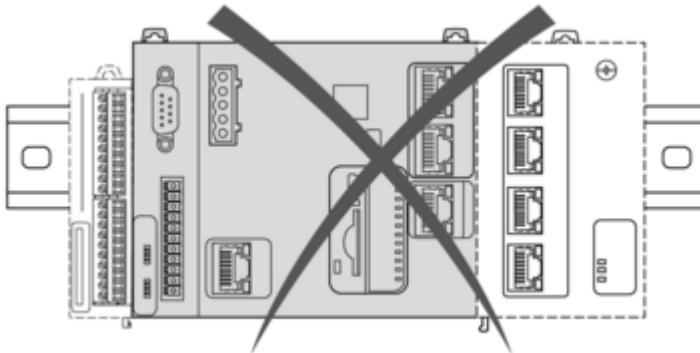
## Correct Mounting Position

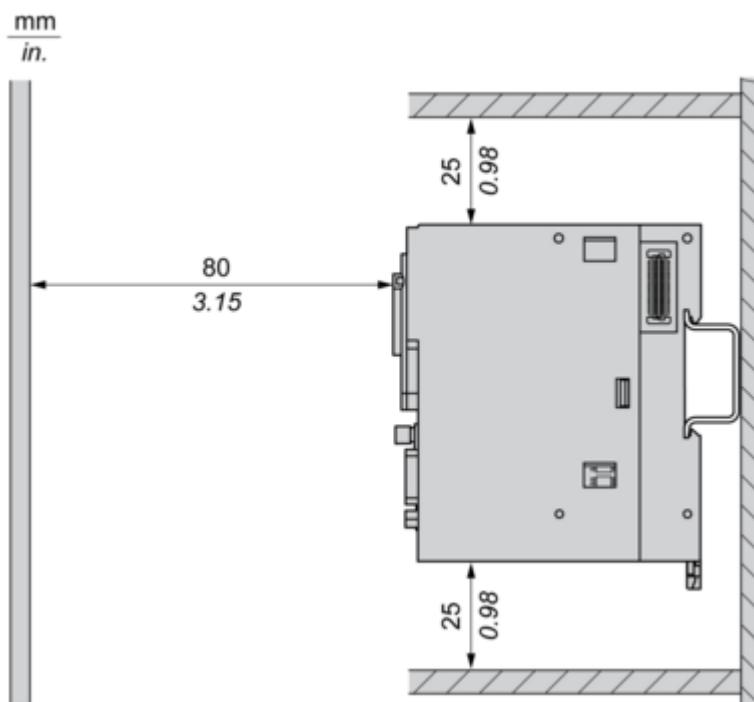
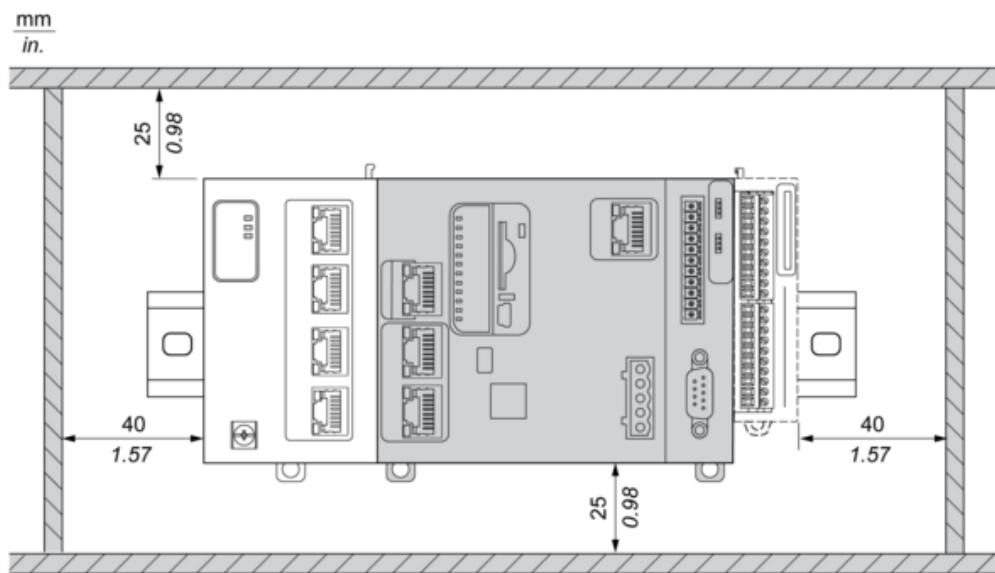


Acceptable Mounting Position

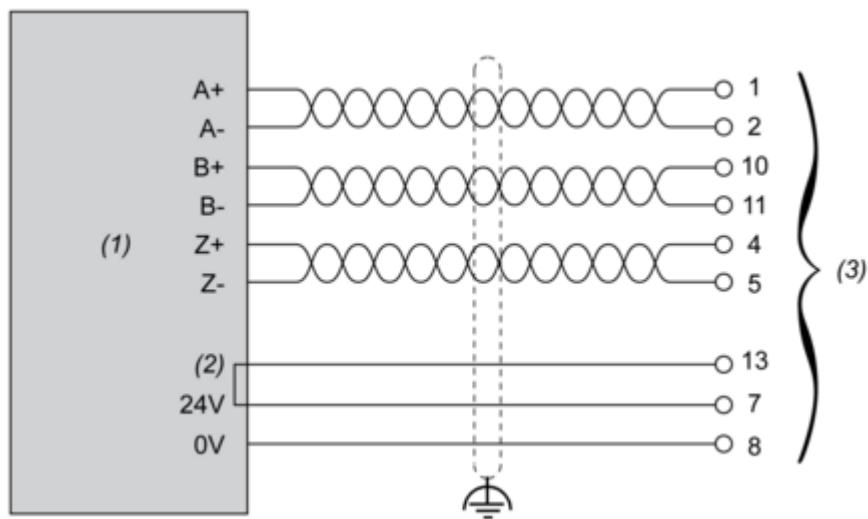
**Incorrect Mounting Positions**

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**Minimum Clearances**

## Connections and Schema

Encoder RS422 / 24 VDC

(1) Encoder

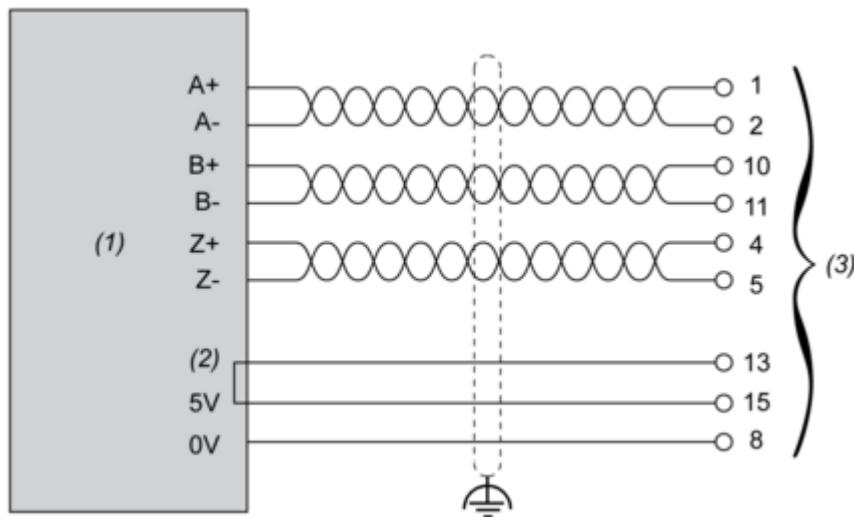
(2) Return Option

(3) Encoder Sub-D

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**Encoder RS422 / 5 VDC or Push Pull**

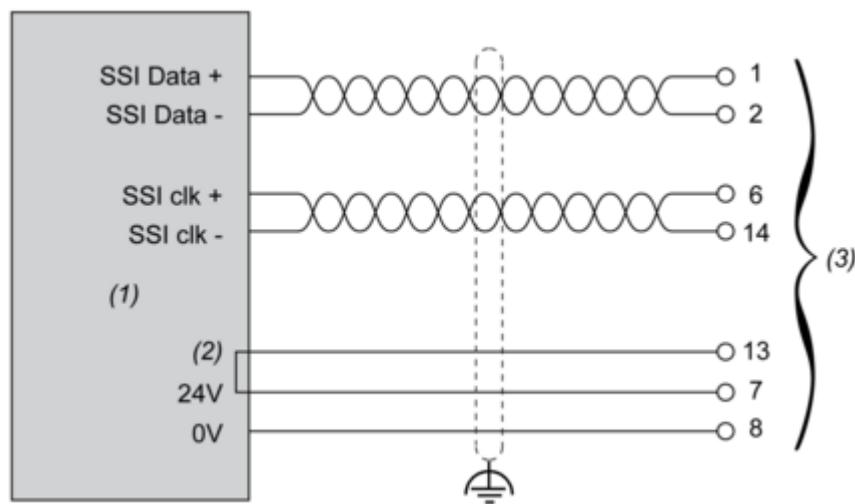
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(1) Encoder

(2) Return Option

(3) Encoder Sub-D

Encoder SSI

(1) Encoder

(2) Return Option

(3) Encoder Sub-D

Image of product / Alternate images

Alternative

