



Part no.: 547815
MSI-EM202-4RO
Safe output module



Figure can vary

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- Electrical connection

Technical data

Basic data	
Series	MSI-EM
Application	Monitoring of safety functions
Number of safe I/Os	4 OUT relays
Functions	
Functions	Extension module for the MSI 200 programmable safety controller Extension with 4 safe relay outputs Monitoring of all safe functions in machines and systems
Characteristic parameters	
SIL	3 , IEC 61508
SILCL	3 , IEC/EN 62061
Performance Level (PL)	e , EN ISO 13849-1
PFH _D	0.00000000003 per hour
PFH _D	3E-11 per hour
Mission time T _M	20 years , EN ISO 13849-1
Category	4 , EN ISO 13849
B10 _d at DC13 (inductive load)	780,000 number of cycles
B10 _d at AC15 (inductive load)	1,960,000 number of cycles
Electrical data	
Protective circuit	Overvoltage protection
Performance data	
Supply voltage U _B	24 V , DC , -15 ... 10 %
Overvoltage category	III
Outputs	
Number of signal outputs	4 Piece(s)
Output data	
Status indicator	2 LEDs (green, red)
Limiting continuous current	4 A
Safety-related switching outputs	
Type	Safety-related switching output OSSD
Voltage type	AC/DC, DC
Safety-related switching output 1	
Switching element	Relay
Safety-related switching output 2	
Switching element	Relay
Safety-related switching output 3	
Switching element	Relay
Safety-related switching output 4	
Switching element	Relay
Signal outputs	
Nominal voltage	24 V DC , (A1/A2)
Limiting continuous current	50 mA
Timing	
Readiness delay	10,000 ms

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Connection	
Number of connections	2 Piece(s)
Connection 1	
Type of connection	Terminal
Function	Connection to device Signal IN Signal OUT Voltage supply
Type of terminal	Spring-cage terminal
No. of pins	16 -pin
Connection 2	
Type of connection	TBUS DIN rail
Function	Internal communication interface
Cable properties	
Connection cross sections	0.2 to 1.5 mm ²

Mechanical data	
Dimension (W x H x L)	22.5 mm x 114.5 mm x 112 mm
Housing material	Plastic , Unreinforced polyamide PA
Net weight	180 g
Housing color	Gray
Type of fastening	Snap-on mounting
Mechanical life time	100,000,000 actuation cycles

Environmental data	
Ambient temperature, operation	-5 ... 45 °C
Ambient temperature, storage	-20 ... 70 °C

Certifications	
Degree of protection	IP 20 (housing) IP 20 (terminals)
Certifications	c UL US TÜV Rheinland

Classification	
Customs tariff number	85371098
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449

Electrical connection

Connection 1	
Type of connection	Terminal
Function	Connection to device Signal IN Signal OUT Voltage supply
Type of terminal	Spring-cage terminal
No. of pins	16 -pin

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Terminal	Assignment
A1	Supply voltage
A1	Supply voltage
A2	Supply voltage
A2	Supply voltage
M0	Signal output
M1	Signal output
M2	Signal output
M3	Signal output
13	OSSD1
23	OSSD2
33	OSSD3
43	OSSD4
14	OSSD1
24	OSSD2
34	OSSD3
44	OSSD4

Connection 2	
Type of connection	TBUS DIN rail
Function	Internal communication interface