

Technical data sheet

Safe output module

Part no.: 547815
MSI-EM202-4RO

Contents

- Technical data
- Electrical connection



Figure can vary



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
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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
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
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Performance data

Supply voltage U _B	24 V, DC, -15 ... 10 %
Overvoltage category	III

Outputs

Number of signal outputs	4 Piece(s)
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Output data

Status indicator	2 LEDs (green, red)
Limiting continuous current	4 A

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)
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Connection 1

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

Connection 2

Function	Internal communication interface
Type of connection	TBUS DIN rail

Cable properties

Connection cross sections	0.2 to 1.5 mm ²
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Mechanical data

Dimension (W x H x L)	22.5 mm x 114.5 mm x 112 mm
Housing material	Plastic
Plastic housing	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
ECLASS 5.1.4	27371800
ECLASS 8.0	27371819
ECLASS 9.0	27371819
ECLASS 10.0	27371819
ECLASS 11.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449

Electrical connection

Connection 1

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

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

Function	Internal communication interface
Type of connection	TBUS DIN rail