

Technical data sheet

Safety relay

Part no.: 547955

MSI-RM2B-02

Contents

- Technical data
- Electrical connection
- Operation and display



Figure can vary



Technical data

Basic data

Series	MSI-RM2B
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Functions

Functions	Signal conversion of electronic safety outputs on potential-free relay contacts
Restart	Automatic

Characteristic parameters

Mission time T_M	20 years, EN ISO 13849-1
Category	Up to 4 (depending on the category of the upstream protective device), EN ISO 13849
$B10_a$ at DC1 (ohmic load)	10,000,000 number of cycles, (2 A, 24 V)
$B10_a$ at AC1 (ohmic load)	1,300,000 number of cycles, (0.5 A, 230 V)
$B10_a$ at DC13 (inductive load)	10,000,000 number of cycles, (2 A, 24 V)
$B10_a$ at AC15 (inductive load)	1,300,000 number of cycles, (0.5 A, 230 V)
$B10_{di}$, low load	1,860,000 number of cycles

Electrical data

Protective circuit	Fuse on switching output, upstream
Continuous current per current path, max.	3 A
External contact fuse protection per current path	5 A quick-action, or 3.15 A delay-action
Permissible input line resistance, max.	50 Ω

Performance data

Supply voltage U_B	24 V, DC, -20 ... 20 %
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Outputs

Number of safety-related switching outputs (OSSDs)	2 Piece(s)
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Safety-related switching outputs

Type	Safety-related switching output OSSD
Voltage type	AC/DC

Safety-related switching output 1

Switching element	Relay, NO
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Safety-related switching output 2

Switching element	Relay, NO
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Timing

Pickup delay	20 ms
Regression delay	10 ms

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Connection to device
Type of connection	Terminal
Type of terminal	Spring-cage terminal
No. of pins	12 -pin

Cable properties

Connection cross sections	0.2 to 1.5 mm ²
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Mechanical data

Dimension (W x H x L)	17.5 mm x 111 mm x 114.1 mm
Housing material	Plastic
Plastic housing	PA 66
Electrical contact material	AgNi10 + 5 mm Au
Net weight	120 g
Housing color	Gray
Type of fastening	Snap-on mounting
Mechanical life time	10,000,000 actuation cycles

Operation and display

Type of display	LED
Number of LEDs	2 Piece(s)

Environmental data

Ambient temperature, operation	0 ... 50 °C
Ambient temperature, storage	-25 ... 70 °C

Certifications

Degree of protection	IP 20
Protection class	II
Certifications	c UL US TÜV NRTL US

Classification

Customs tariff number	85371098
eCl@ss 5.1.4	27371800
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819
eCl@ss 10.0	27371819
eCl@ss 11.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449

Electrical connection

Connection 1

Function	Connection to device
Type of connection	Terminal
Type of terminal	Spring-cage terminal
No. of pins	12 -pin

Electrical connection

Pin	Pin assignment
	22
1	Relay contact 2 IN, NC
	24
2	Relay contact 2 IN, NO
	11
3	Relay contact 1 OUT
	Y1
4	External device monitoring circuit (EDM)
	n.c.
5	n.c.
	Y2
6	External device monitoring circuit (EDM)
	A2
7	0 V
	B1
8	Sensor input channel 1, 24V
	B3
9	Sensor input channel 2, 24V
	14
10	Relay contact 1 IN, NO
	21
11	Relay contact 2 OUT
	12
12	Relay contact 1 IN, NC

Operation and display

LED	Display	Meaning
1	Green, continuous light	Relay K1 picked up
2	Green, continuous light	Relay K2 picked up