

Technical data sheet

Safety relay

Part no.: 50133027

MSI-SR-CM43-03

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Circuit diagrams
- Notes



Technical data

Basic data

Series	MSI-SR-CM43
Application	Extension unit for safety relays

Functions

Functions	Monitoring of proximity switches
Restart	Automatic

Characteristic parameters

SIL	2, IEC 61508
SILCL	2, IEC/EN 62061
Performance Level (PL)	d, EN ISO 13849-1
MTTF _d	55 years, EN ISO 13849-1
PFH _D	8,1E-10 per hour
Mission time T _M	20 years, EN ISO 13849-1
Category	3, EN ISO 13849
B10 _d at DC13 (inductive load)	300,000 number of cycles, (5 A, 230 V), 700,000 (1 A, 230 V)
B10 _d at AC15 (inductive load)	200,000 number of cycles, (5 A, 230 V), 380,000 (1 A, 230 V)

Electrical data

Supply circuit	
Nominal voltage U _N	24 V DC
Nominal frequency	50 ... 60 Hz
Operating voltage	0.85 ... 1.1 x U _N
Rated power AC	3.3 V·A
Rated power DC	1.5 W
Output circuit	
Number of outputs, safety-oriented, undelayed, contact-based	4 Piece(s)
Number of outputs, signaling function, undelayed, contact-based	3 Piece(s)
Contact material	Ag alloy, gold-plated
Usage category AC-15 (NO contact)	Ue 230V, Ie 5A
Usage category DC-13 (NO contact)	Ue 24V, Ie 5A
Short circuit protection (NO contact)	gG class safety fuse 6A, melting integral
Max. total current I ² of all current paths	25 A ²
Mechanical life time	100,000,000 switching cycles

Control circuit

Max. cable resistance, per channel	$\leq (5 + (1.176 \times U_B / U_N - 1) \times 100) \Omega$
------------------------------------	---

Connection

Number of connections	1 Piece(s)
-----------------------	------------

Connection 1

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

Cable properties

Connection cross sections	2 x 0.2 to 1.5 mm ² , wire
	2 x 0.2 to 1.5 mm ² , wire
	2 x 0.25 to 1.5 mm ² , wire with wire-end sleeve

Mechanical data

Dimension (W x H x L)	22.5 mm x 106.5 mm x 114 mm
Net weight	200 g
Housing color	Gray
Type of fastening	Snap-on mounting

Certifications

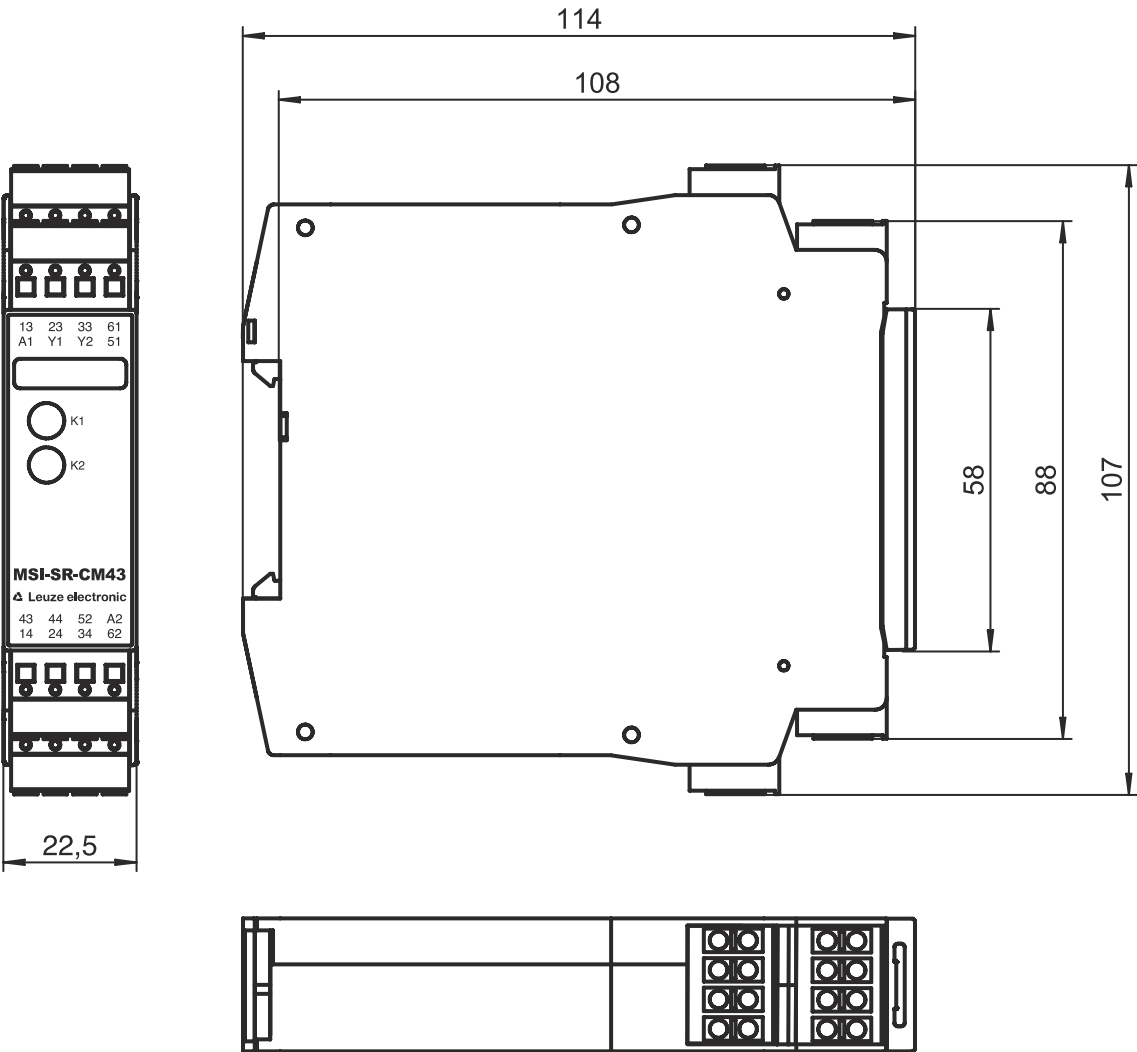
Certifications	c UL US
	TÜV Rheinland

Classification

Customs tariff number	85364900
eCl@ss 8.0	27371819
eCl@ss 9.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449

Dimensioned drawings

All dimensions in millimeters



Electrical connection

Connection 1

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

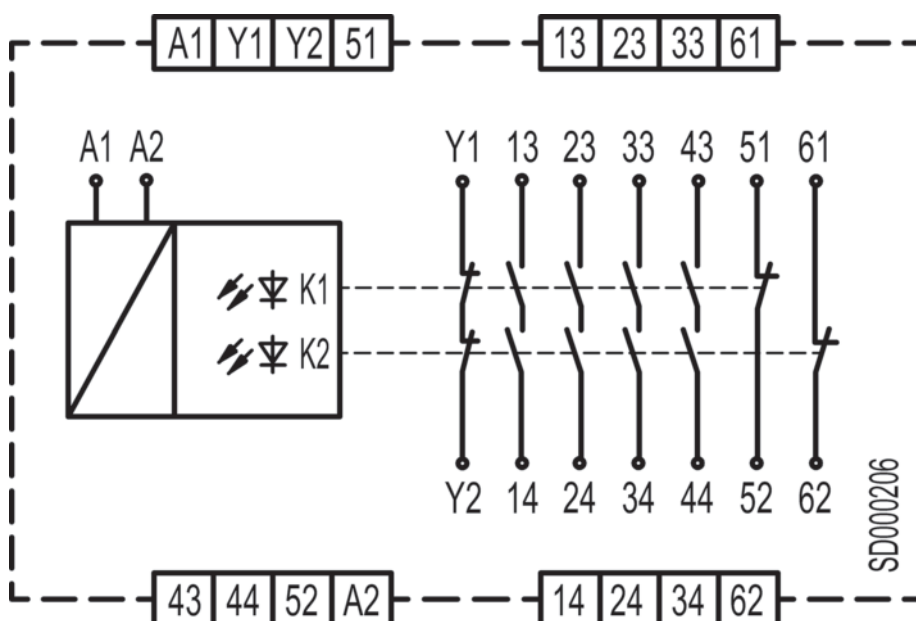
Pin Pin assignment

	13
1	Release current path 1 (NO contact)
	14
2	Release current path 1 (NO contact)
	23

Electrical connection

Pin	Pin assignment
3	Release current path 2 (NO contact) 24
4	Release current path 2 (NO contact) 33
5	Release current path 3 (NO contact) 34
6	Release current path 3 (NO contact) 43
7	Release current path 4 (NO contact) 44
8	Release current path 4 (NO contact) 51
9	Signaling current path 1 (NC contact) 52
10	Signaling current path 1 (NC contact) 61
11	Signaling current path 2 (NC contact) 62
12	Signaling current path 2 (NC contact) A1
13	+24V A2
14	GND Y1
15	Feedback path (NC contact) for the coupling to the base device Y2
16	Feedback path (NC contact) for the coupling to the base device

Circuit diagrams



Notes

 Observe intended use!	
	⌚ The product may only be put into operation by competent persons. ⌚ Only use the product in accordance with its intended use.