

Technical data sheet

Safety relay

Part no.: 50133015

MSI-SR-CM42R-03

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Circuit diagrams
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Figure can vary



Technical data

Basic data

Series	MSI-SR-CM42
Application	Extension unit for base devices in safety applications

Functions

Restart	Automatic
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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	0.0000000015 per hour
Mission time T _M	20 years, EN ISO 13849-1
Category	4, EN ISO 13849

Electrical data

Supply circuit	
Nominal voltage U _N	24 V DC
Rated power DC	1.4 W
Output circuit	
Release current paths	4
Signaling current paths	2
Contact material	Ag alloy, gold-plated
Usage category AC-15 (NO contact)	Ue 230V, Ie 3A
Usage category DC-13 (NO contact)	Ue 24V, Ie 1A
Short circuit protection (NO contact)	gG class safety fuse 6A, melting integral
Max. thermal continuous current I _{th} , release current paths	6 A
Max. thermal continuous current I _{th} , signaling current paths	1 A
Max. total current I ² of all current paths	144 A ²
Mechanical life time	100,000,000 switching cycles
Control circuit	
Max. peak current at the control inputs (safety circuit/reset circuit)	110 mA
Max. cable resistance, per channel	≤ (5 + (1.333 × U _B / U _N - 1) × 200) Ω
Release time t _R	15 ms
Recovery time t _w	30 ms

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	180 g
Housing color	Gray
Type of fastening	Snap-on mounting

Certifications

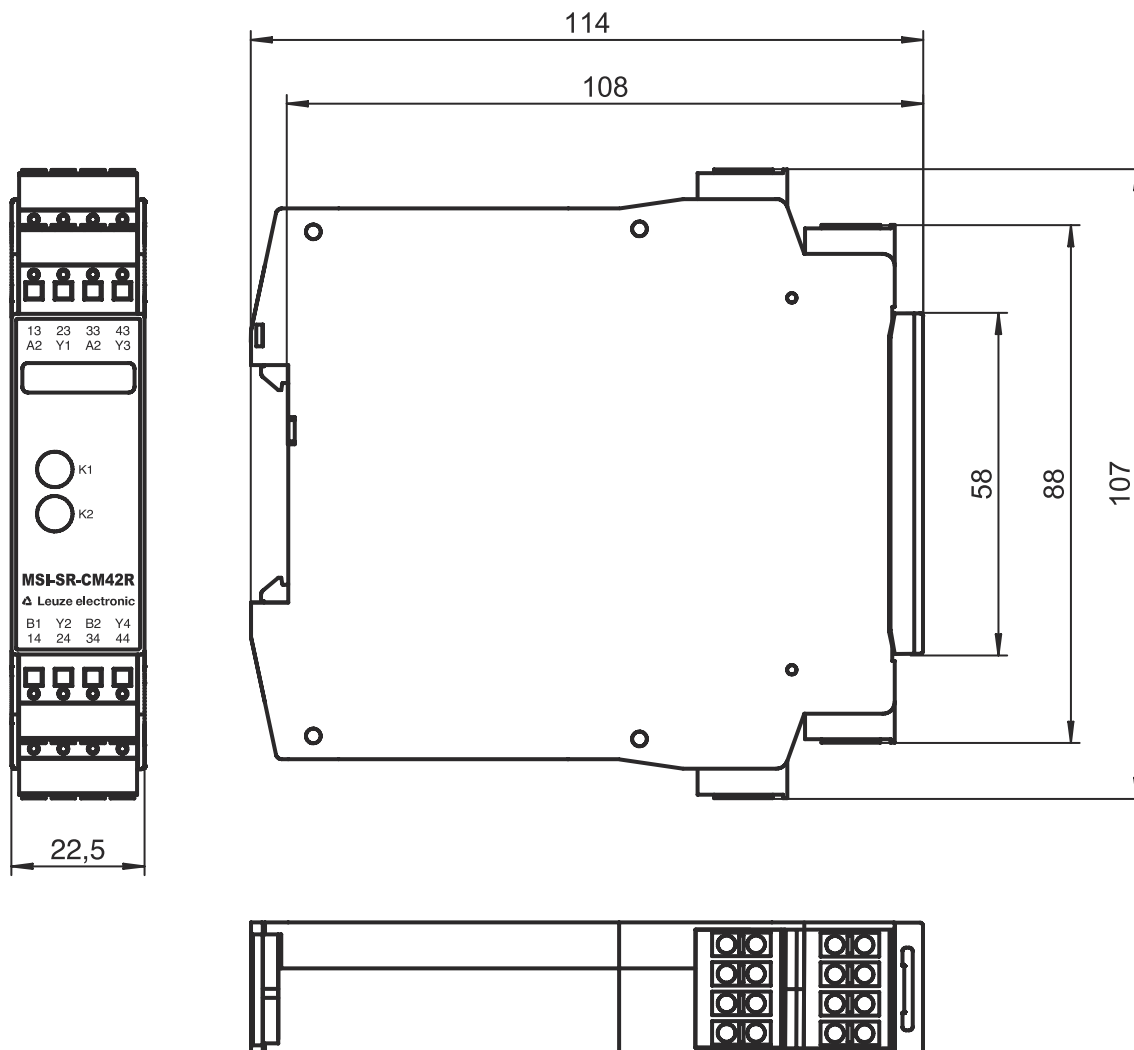
Certifications	c UL US
	TÜV Rheinland

Classification

Customs tariff number	85364190
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

Dimensioned drawings

All dimensions in millimeters



Electrical connection

Connection 1

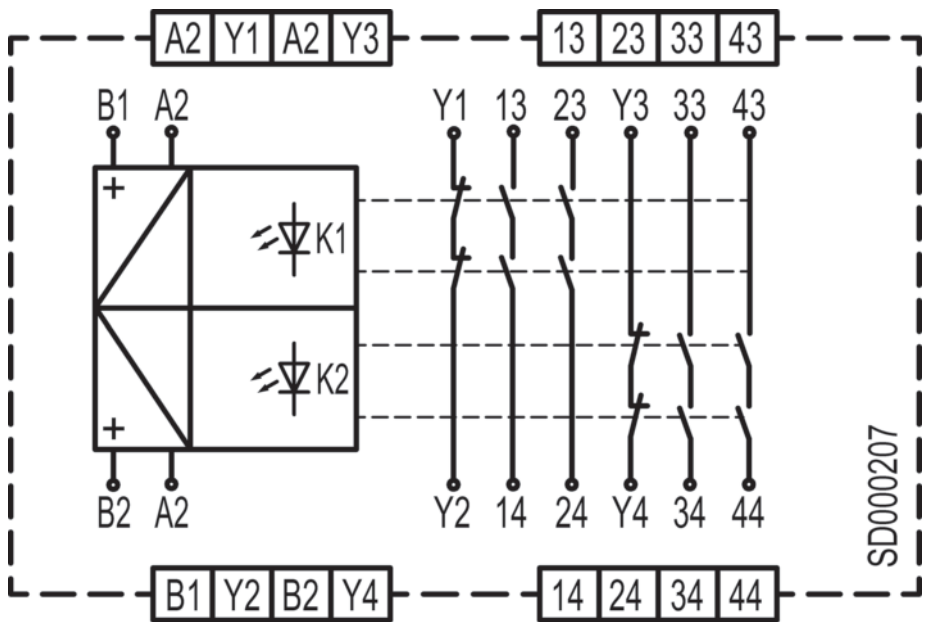
Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Terminal
Type of terminal	Spring-cage terminal
No. of pins	16 -pin

Pin	Pin assignment
1	13 Release current path 1 (NO contact)
2	14 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) A1
9	Control circuit 1 A2
10	Control circuit 2 B1
11	Control circuit 1 B2
12	Control circuit 2 Y1
13	Signaling current path 1 (NC contact) Y2
14	Signaling current path 1 (NC contact) Y3
15	Signaling current path 2 (NC contact) Y4
16	Signaling current path 2 (NC contact)

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.