

Technical data sheet

Safety relay

Part no.: 50133014

MSI-SR-CM42R-01

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 x U _B / U _N - 1) x 200) Ω
Release time t _R	15 ms
Recovery time t _w	30 ms

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Signal IN
	Signal OUT
	Voltage supply

Type of connection	Terminal
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Type of terminal	Screw terminal
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No. of pins	16 -pin
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Cable properties

Connection cross sections	1 x 0.2 to 2.5 mm ² , wire
	1 x 0.2 to 2.5 mm ² , wire
	1 x 0.25 to 2.5 mm ² , wire with wire-end sleeve
	2 x 0.2 to 1.0 mm ² , wire
	2 x 0.2 to 1.0 mm ² , wire
	2 x 0.25 to 1.0 mm ² , wire with wire-end sleeve

Mechanical data

Dimension (W x H x L)	22.5 mm x 96.5 mm x 114 mm
Net weight	180 g
Housing color	Gray
Type of fastening	Snap-on mounting

Certifications

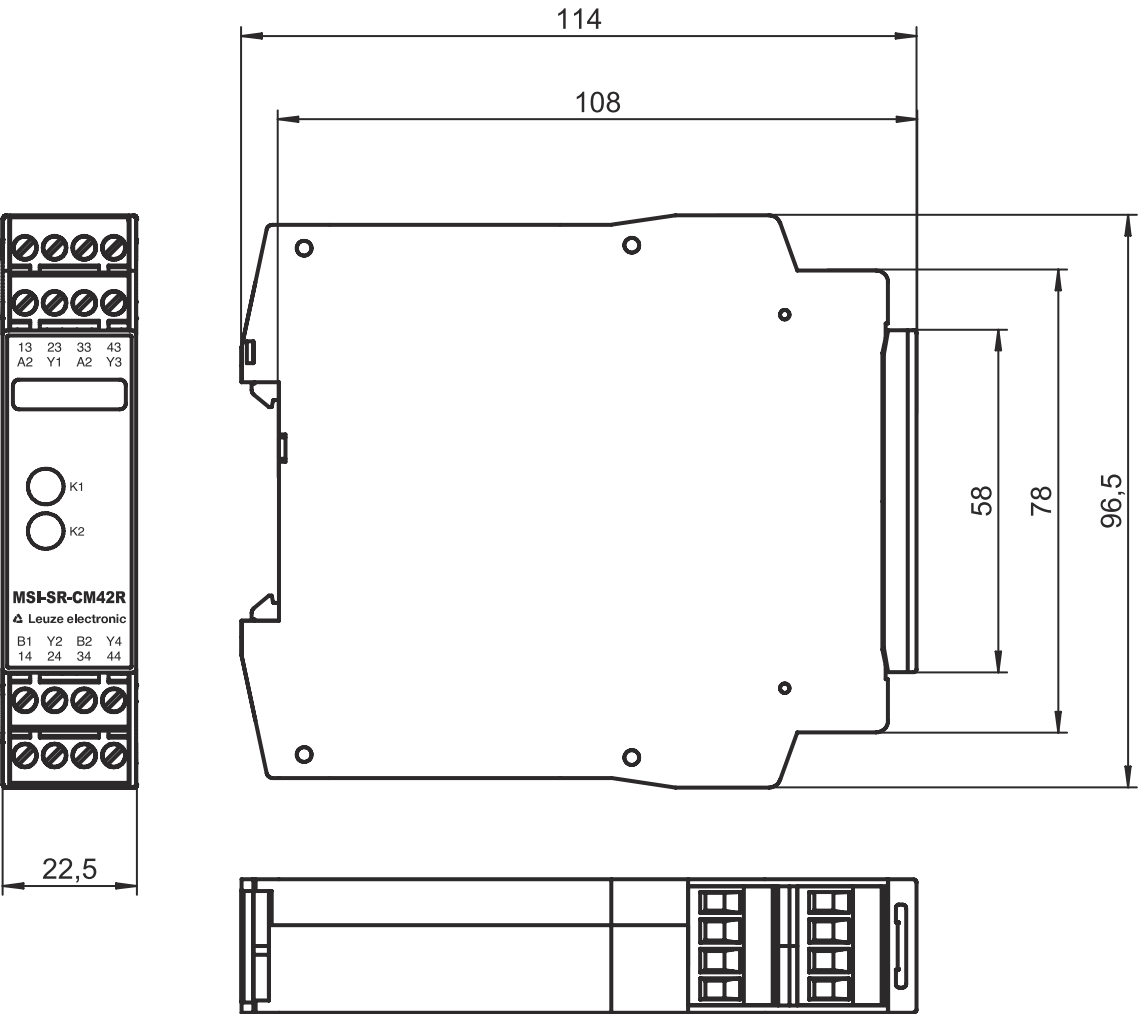
Certifications	c UL US
	TÜV Rheinland

Classification

Customs tariff number	85364190
eCl@ss 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

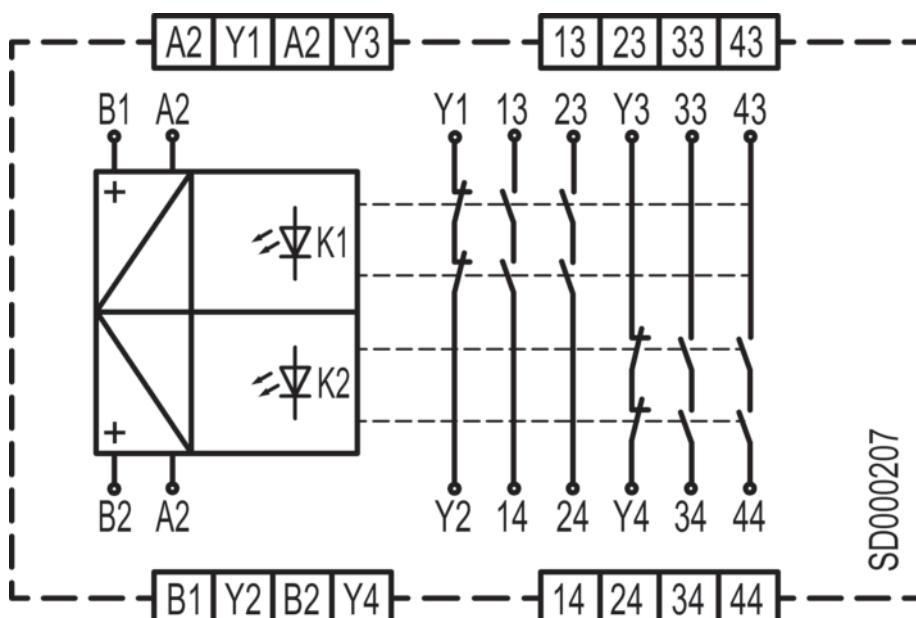
Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	16 -pin

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

Electrical connection

Pin	Pin assignment
	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.