

## Technical data sheet

### Safety relay

Part no.: 50133014

MSI-SR-CM42R-01

#### Contents

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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 <sub>D</sub>	1,5E-09 per hour
Mission time T <sub>M</sub>	20 years, EN ISO 13849-1
Category	4, EN ISO 13849

### Electrical data

#### Supply circuit

Nominal voltage U <sub>N</sub>	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 <sub>th</sub> , release current paths	6 A
Max. thermal continuous current I <sub>th</sub> , signaling current paths	1 A
Max. total current I <sup>2</sup> of all current paths	144 A <sup>2</sup>
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 <sub>B</sub> / U <sub>N</sub> - 1) × 200) Ω
Release time t <sub>R</sub>	15 ms
Recovery time t <sub>w</sub>	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
Type of terminal	Screw terminal
No. of pins	16 -pin

#### Cable properties

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

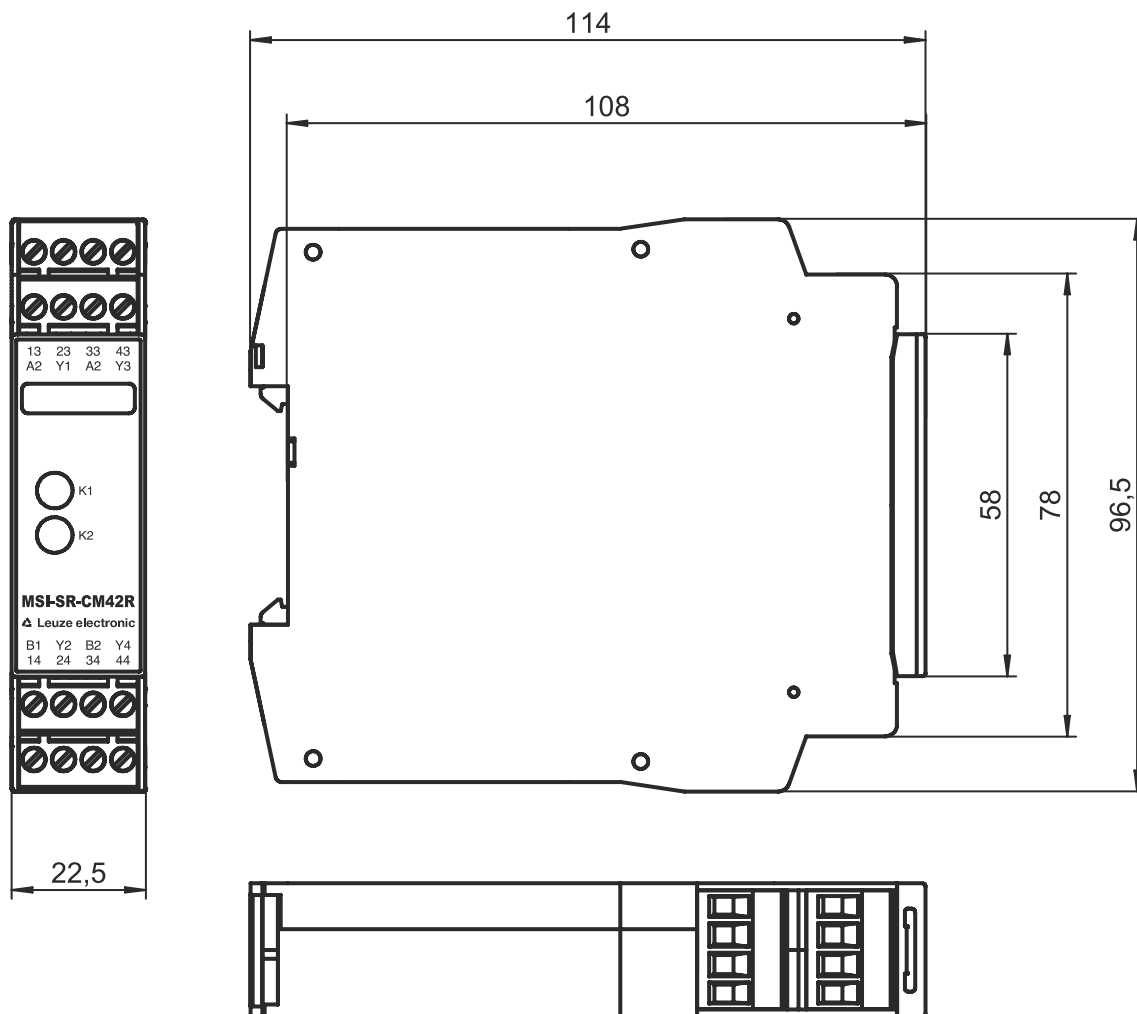
Certifications	c UL US
	TÜV Rheinland

### Classification

Customs tariff number	85364190
ECLASS 5.1.4	27371800
ECLASS 8.0	27371819
ECLASS 9.0	27371819
ECLASS 10.0	27371819
ECLASS 11.0	27371819
ECLASS 12.0	27371819
ETIM 5.0	EC001449
ETIM 6.0	EC001449
ETIM 7.0	EC001449

# Dimensioned drawings

All dimensions in millimeters



## Electrical connection

### Connection 1

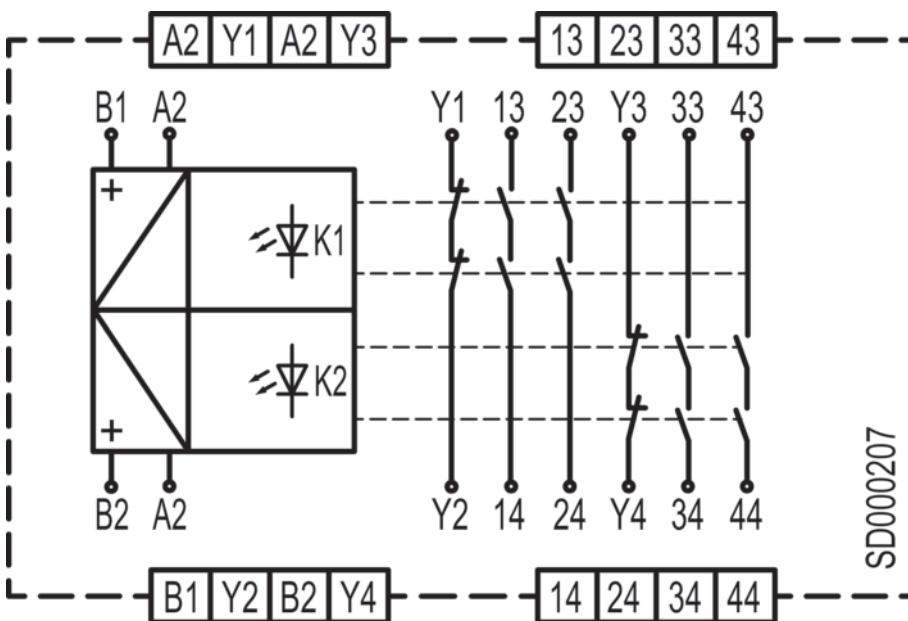
<b>Function</b>	Signal IN Signal OUT Voltage supply
<b>Type of connection</b>	Terminal
<b>Type of terminal</b>	Screw terminal
<b>No. of pins</b>	16 -pin

Terminal	Assignment
13	Release current path 1 (NO contact)
14	Release current path 1 (NO contact)
23	Release current path 2 (NO contact)
24	Release current path 2 (NO contact)
33	Release current path 3 (NO contact)
34	Release current path 3 (NO contact)

## Electrical connection

Terminal	Assignment
43	Release current path 4 (NO contact)
44	Release current path 4 (NO contact)
A2	GND
A2	GND
B1	Control circuit 1
B2	Control circuit 2
Y1	Signaling current path 1 (NC contact)
Y2	Signaling current path 1 (NC contact)
Y3	Signaling current path 2 (NC contact)
Y4	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.