

Technical data sheet

Safety relay

Part no.: 50133012

MSI-SR-CM32-01

Contents

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



Figure can vary



Technical data

Basic data

Series	MSI-SR-CM32
Application	Extension unit for base devices in safety applications

Functions

Functions	Monitoring of proximity switches
Restart	Automatic

Characteristic parameters

SIL	3, IEC 61508
SILCL	3, IEC/EN 62061
Performance Level (PL)	e, EN ISO 13849-1
MTTF _d	74 years, EN ISO 13849-1
PFH _D	3,5E-10 per hour
Mission time T _M	20 years, EN ISO 13849-1
Category	4, 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 DC	1.2 W
Galvanic isolation between supply and control circuit	No

Output circuit

Number of outputs, safety-oriented, undelayed, contact-based	3 Piece(s)
Number of outputs, signaling function, undelayed, contact-based	2 Piece(s)
Release current paths	NO
Signaling current paths	NC
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 2,5A
Short circuit protection (NO contact)	gG class safety fuse 6A, melting integral
Nominal switching voltage, release current paths AC	230 V
Nominal switching voltage, signaling current paths AC	230 V
Max. thermal continuous current I _{th} , release current paths	6 A
Max. thermal continuous current I _{th} , signaling current paths	2 A
Max. total current I ² of all current paths	9 A ²
Mechanical life time	100,000,000 switching cycles

Control circuit

Input current at the control inputs (safety circuit/reset circuit)	50 mA
Max. peak current at the control inputs (safety circuit/reset circuit)	500 mA
Max. cable resistance, per channel	≤ (5 + (1.6 x U _B / U _N - 1) x 100) Ω
Response time (manual start t _{A1})	40 ms
Test pulse time permitted t _{TP}	1 ms
Release time t _R	20 ms
Recovery time t _W	40 ms

Connection

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

Connection 1

Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	14 -pin

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

Certifications

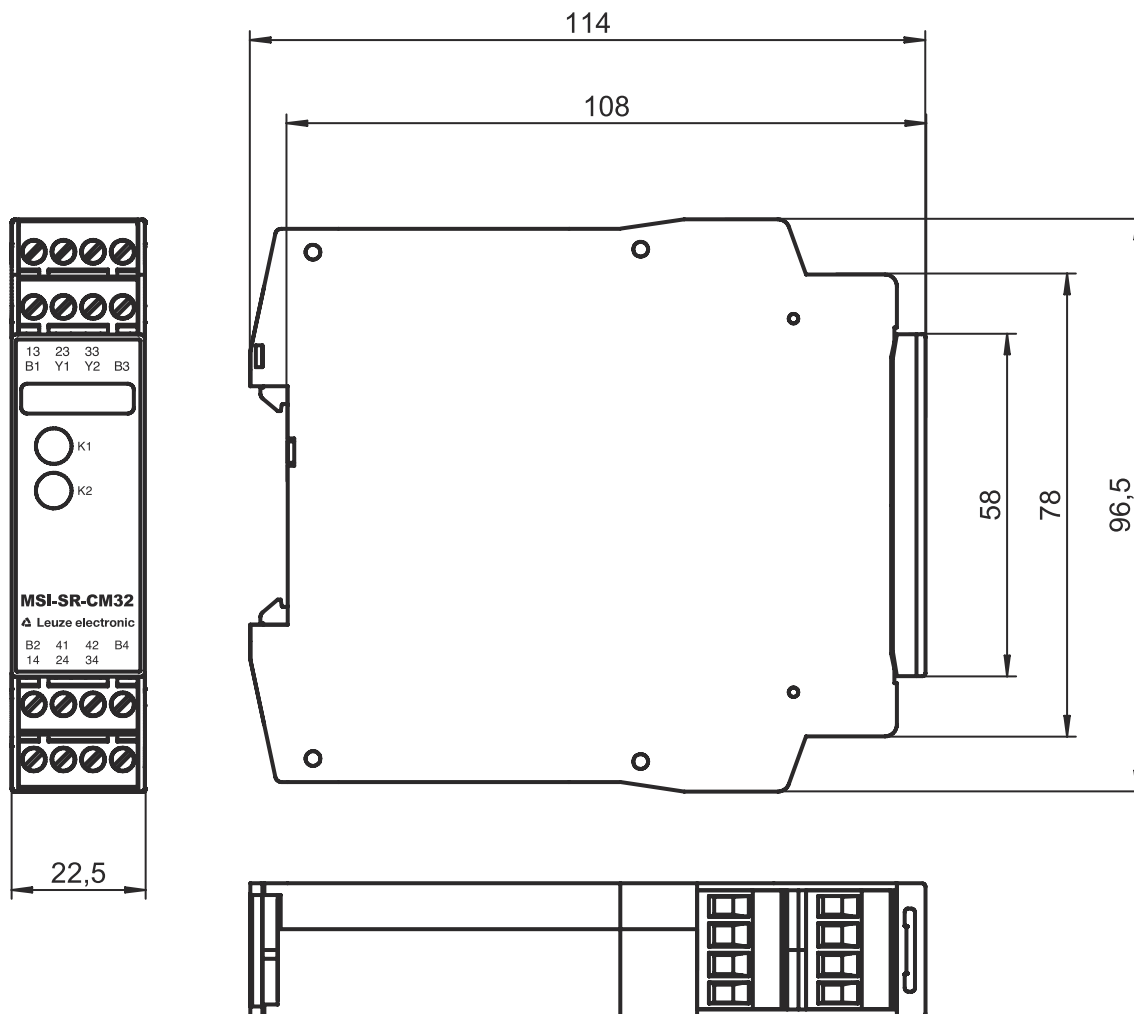
Certifications	c UL US
	TÜV Rheinland

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

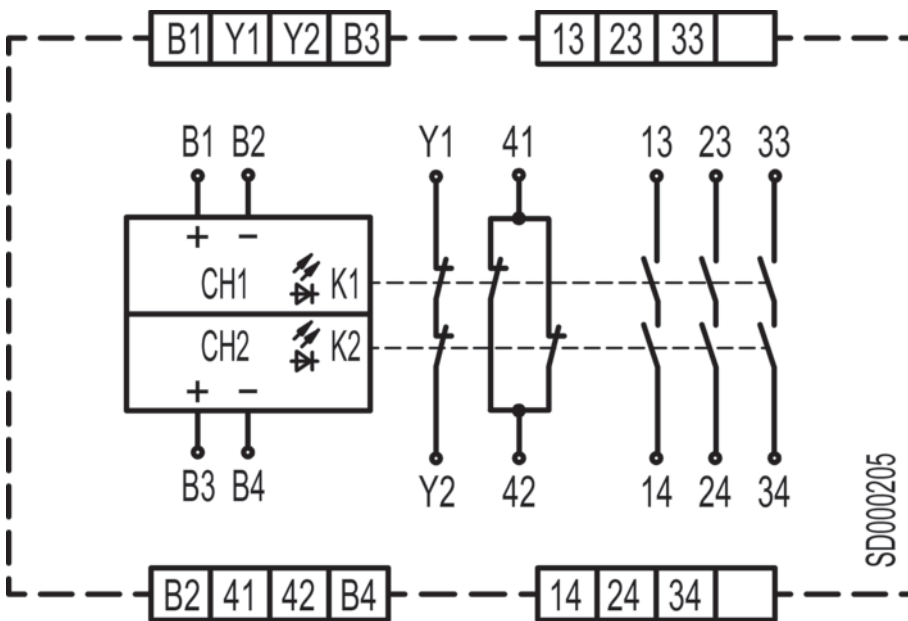
Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Terminal
Type of terminal	Screw terminal
No. of pins	14 -pin

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) 41
7	Signaling current path (NC contact) 42
8	Signaling current path (NC contact) B1
9	Control circuit 1 B2
10	Control circuit 1 B3
11	Control circuit 2 B4
12	Control circuit 2 Y1
13	Feedback path (NC contact) for the coupling to the base device Y2
14	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.