

Technical data sheet

Safety relay

Part no.: 50133027

MSI-SR-CM43-03

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For illustration purposes only



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 13849-1 |
| 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

| | |
|---|---|
| Performance data | |
| Supply voltage U _B | 24 V, DC, -20 ... 20 % |
| Supply circuit | |
| 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, non-delayed, contact-based | 4 Piece(s) |
| Number of outputs, signaling function, non-delayed, 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 |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -25 ... 55 °C |
|--------------------------------|---------------|

Certifications

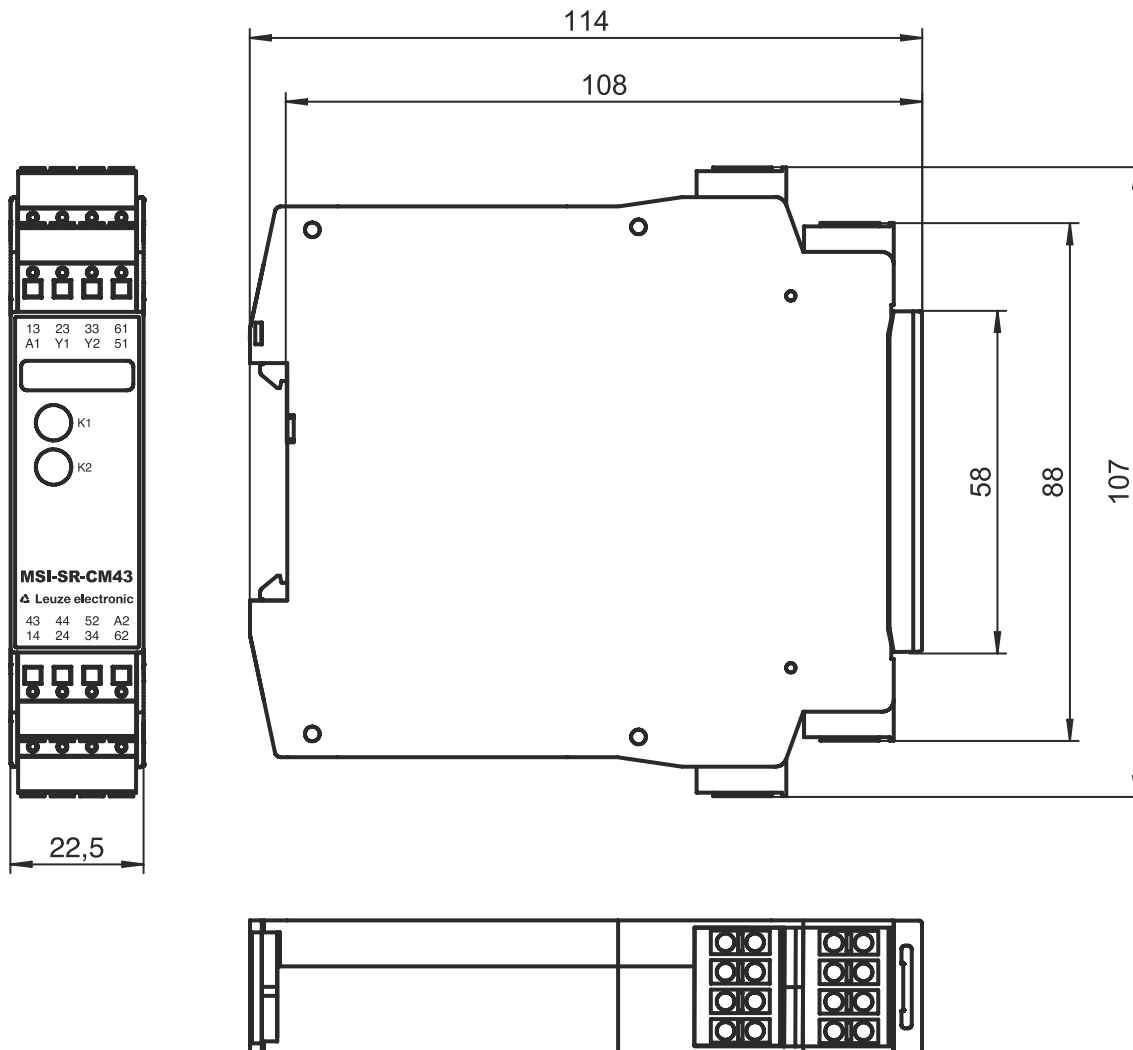
| | |
|-----------|--------------------------|
| Approvals | c UL US TÜV Rheinland |
|-----------|--------------------------|

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 85364900 |
| 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 |
| ECLASS 13.0 | 27371819 |
| ECLASS 14.0 | 27371819 |
| ECLASS 15.0 | 27371819 |
| ETIM 5.0 | EC001449 |
| ETIM 6.0 | EC001449 |
| ETIM 7.0 | EC001449 |
| ETIM 8.0 | EC001449 |
| ETIM 9.0 | EC001449 |
| ETIM 10.0 | 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 |

Terminal

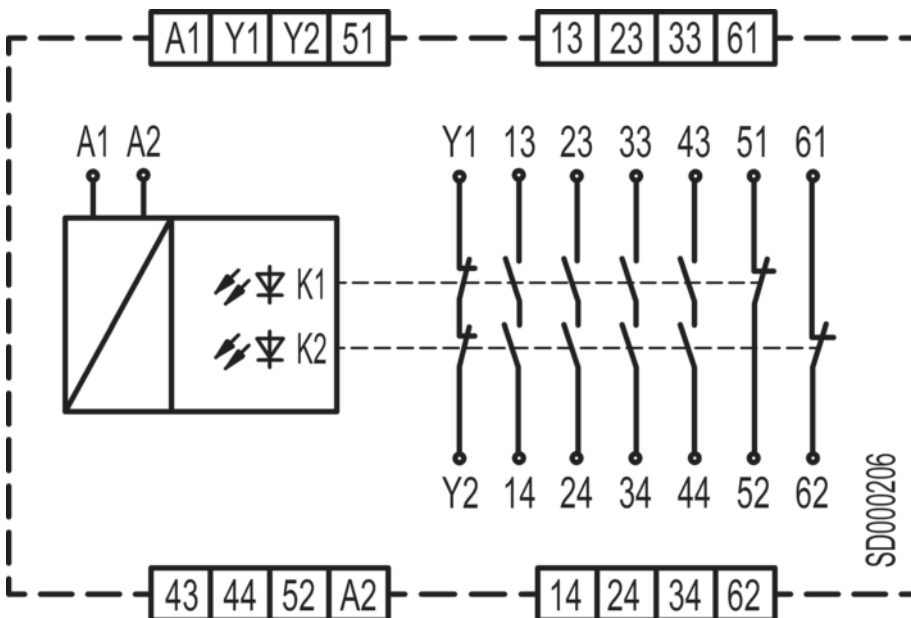
Assignment

| | |
|----|-------------------------------------|
| 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) |

Electrical connection

| Terminal | Assignment |
|----------|--|
| 34 | Release current path 3 (NO contact) |
| 43 | Release current path 4 (NO contact) |
| 44 | Release current path 4 (NO contact) |
| 51 | Signaling current path 1 (NC contact) |
| 52 | Signaling current path 1 (NC contact) |
| 61 | Signaling current path 2 (NC contact) |
| 62 | Signaling current path 2 (NC contact) |
| A1 | +24 V |
| A2 | GND |
| Y1 | Feedback path (NC contact) for the coupling to the base device |
| Y2 | 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.