



Part no.: 50133012
MSI-SR-CM32-01
Safety relay



Figure can vary

Contents

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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 |

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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 | $\leq (5 + (1.6 \times U_B / U_N - 1) \times 100) \Omega$ |
| 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

| | |
|--------------------|---|
| Type of connection | Terminal |
| Function | Signal IN Signal OUT Voltage supply |
| 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

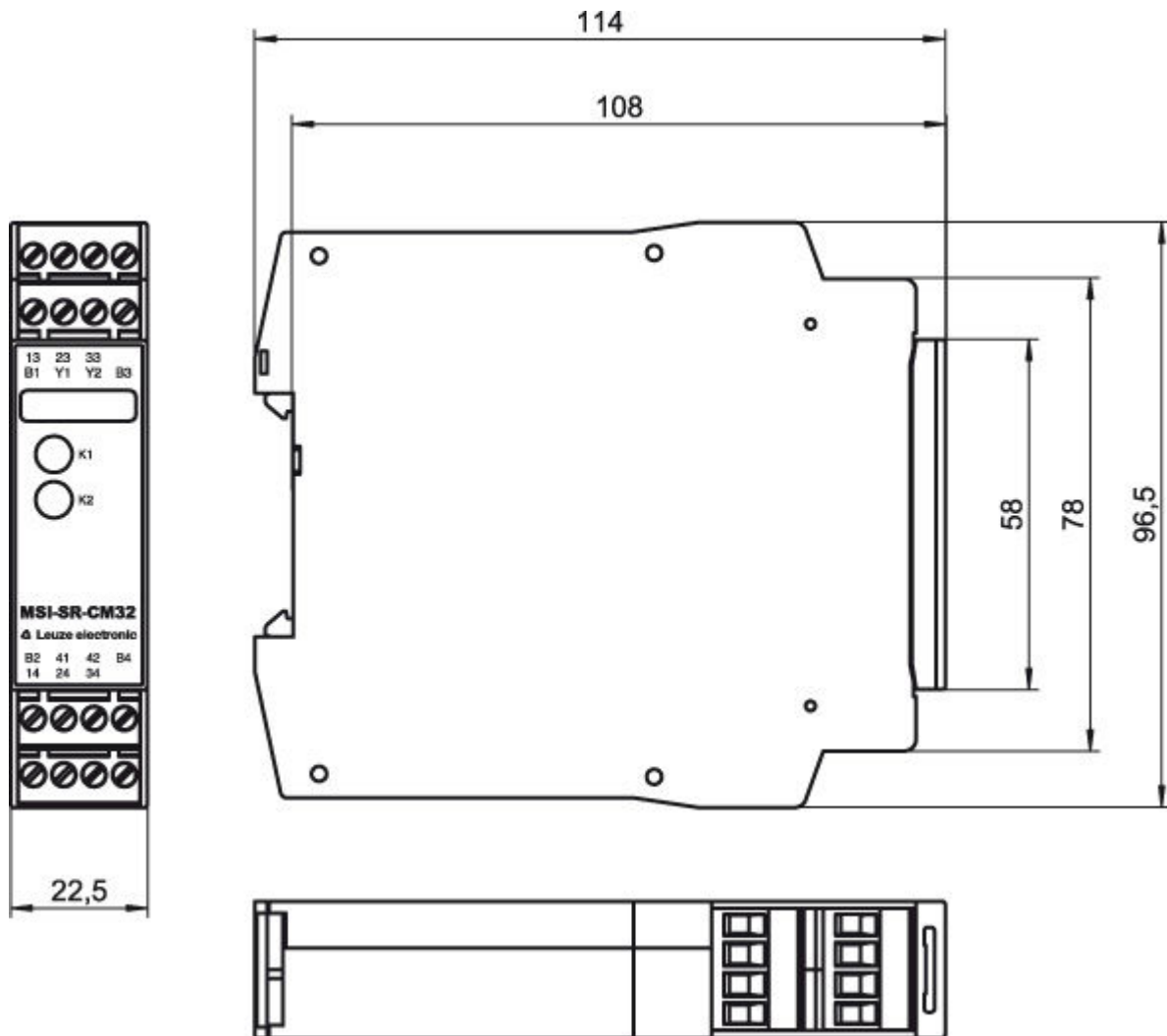
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|----------------|--------------------------|
| Certifications | c UL US TÜV Rheinland |
|----------------|--------------------------|

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



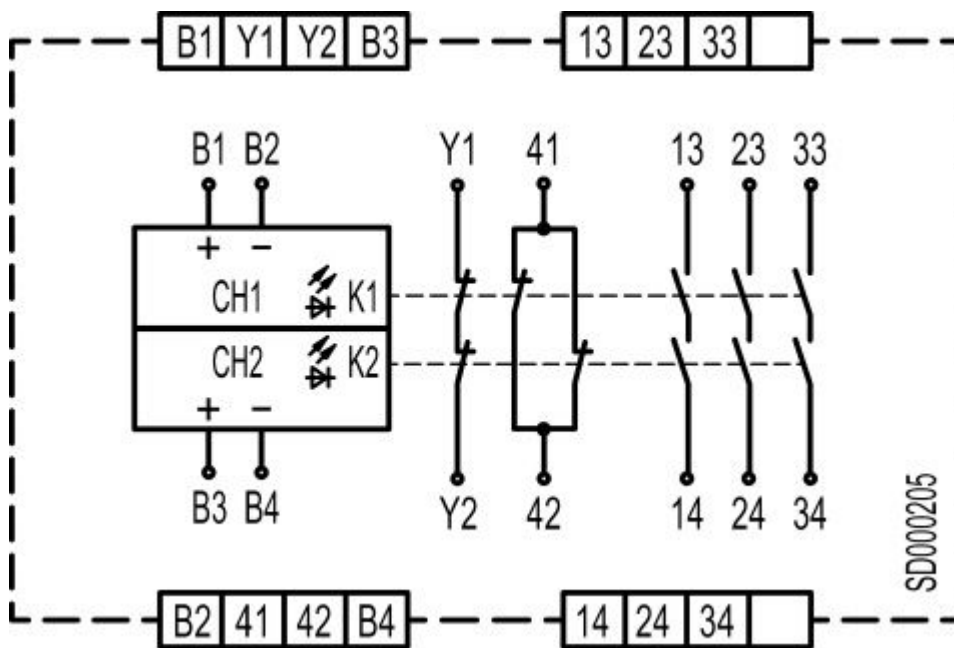
Electrical connection

| Connection 1 | |
|--------------------|---|
| Type of connection | Terminal |
| Function | Signal IN Signal OUT Voltage supply |
| Type of terminal | Screw terminal |
| No. of pins | 14 -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) |
| 41 | Signaling current path (NC contact) |
| 42 | Signaling current path (NC contact) |
| B1 | Control circuit 1 |

| Terminal | Assignment |
|----------|--|
| B2 | Control circuit 1 |
| B3 | Control circuit 2 |
| B4 | Control circuit 2 |
| 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.