

## Technical data sheet

### Safety relay

Part no.: 50133015

MSI-SR-CM42R-03

#### Contents

- Technical data
- Dimensioned drawings
- Electrical connection
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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 |
|---------|-----------|

### 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

|                                                                           |                                                               |
|---------------------------------------------------------------------------|---------------------------------------------------------------|
| <b>Supply circuit</b>                                                     |                                                               |
| Nominal voltage U <sub>N</sub>                                            | 24 V DC                                                       |
| Rated power DC                                                            | 1.4 W                                                         |
| <b>Output circuit</b>                                                     |                                                               |
| 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 I² of all current paths                                | 144 A²                                                        |
| Mechanical life time                                                      | 100,000,000 switching cycles                                  |
| <b>Control circuit</b>                                                    |                                                               |
| Max. peak current at the control inputs (safety circuit/reset circuit)    | 110 mA                                                        |
| Max. cable resistance, per channel                                        | ≤ (5 + (1.333 x U <sub>B</sub> / U <sub>N</sub> - 1) x 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)                                     |
| <b>Connection 1</b>       |                                                |
| Function                  | Signal IN                                      |
|                           | Signal OUT                                     |
|                           | Voltage supply                                 |
| Type of connection        | Terminal                                       |
| Type of terminal          | Spring-cage terminal                           |
| No. of pins               | 16 -pin                                        |
| <b>Cable properties</b>   |                                                |
| Connection cross sections | 2 x 0.2 to 1.5 mm², wire                       |
|                           | 2 x 0.2 to 1.5 mm², wire                       |
|                           | 2 x 0.25 to 1.5 mm², 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            | 180 g                       |
| Housing color         | Gray                        |
| Type of fastening     | Snap-on mounting            |

### Certifications

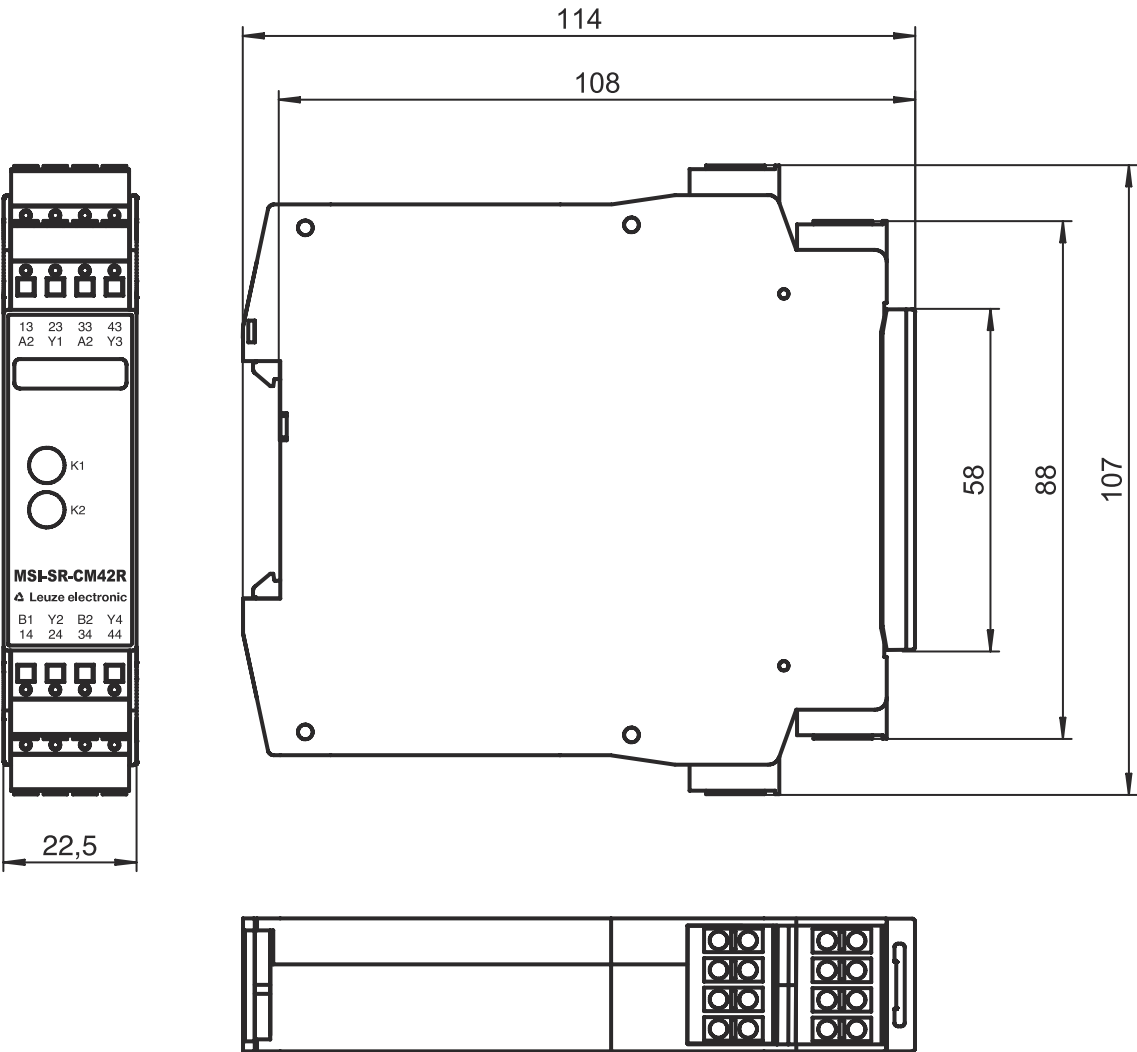
|                |               |
|----------------|---------------|
| Certifications | c UL US       |
|                | TÜV Rheinland |

### 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   | Spring-cage 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                                  |



Notes

|                                                                                                                |                                                                                                                                                                                        |
|----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Observe intended use!</b> |                                                                                                                                                                                        |
|                                | <ul style="list-style-type: none"><li>⌚ The product may only be put into operation by competent persons.</li><li>⌚ Only use the product in accordance with its intended use.</li></ul> |