

Technical data sheet

Single light beam safety device transmitter

Part no.: 50121912

SLS46CI-70.K28



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Technical data

Basic data

| | |
|--------|-----|
| Series | 46C |
|--------|-----|

Functions

| | |
|-----------|------------------|
| Functions | Activation input |
|-----------|------------------|

Characteristic parameters

| | |
|-----------------------------|--------------------------------------------------------------------------------------------|
| Type | 2, IEC/EN 61496, in combination with a suitable test monitoring unit, e.g. MSI-TR1B |
| SIL | 1, IEC 61508, in combination with a suitable test monitoring unit, e.g. MSI-TR1B |
| SILCL | 1, IEC/EN 62061, in combination with a suitable test monitoring unit, e.g. MSI-TR1B |
| Performance Level (PL) | c, EN ISO 13849-1:2008, In combination with a suitable test monitoring unit, e.g. MSI-TR1B |
| MTTF _d | 400 years, EN ISO 13849-1 |
| PFH _D | 3E-10 per hour |
| Mission time T _M | 20 years, EN ISO 13849-1 |
| Category | 2, EN ISO 13849, In combination with a suitable test monitoring unit, e.g. MSI-TR1B |

Optical data

| | |
|--------------------------|---------------|
| Operating range | 5 ... 70 m |
| Operating range limit | 5 ... 80 m |
| Light source | LED, Infrared |
| Wavelength | 940 nm |
| Transmitted-signal shape | Pulsed |
| LED group | 1 |
| Opening angle, max. | -5 ... 5 ° |

Electrical data

| | |
|--------------------|---------------------------------------------------------|
| Protective circuit | Polarity reversal protection Short circuit protected |
|--------------------|---------------------------------------------------------|

Performance data

| | |
|-------------------------------|-----------------------------------------------|
| Supply voltage U _B | 24 V, DC, -20 ... 20 %, Incl. residual ripple |
| Residual ripple | 10 %, From U _B |
| Open-circuit current | 0 ... 40 mA |

Inputs

| | |
|-----------------------------|------------|
| Number of activation inputs | 1 Piece(s) |
|-----------------------------|------------|

Activation inputs

| | |
|------------------------------|---------------------------|
| Voltage type | DC |
| Switching voltage | high: ≥8V low: ≤ 1.5 V |
| Switching voltage high, min. | 8 V |
| Switching voltage low, max. | 1.5 V |
| Activation/disable delay | 1 ms |
| Input resistance | 10,000 Ω, -30 ... 30 % |

Activation input 1

| | |
|------------------------|---------------------------|
| Assignment | Connection 1, conductor 4 |
| Active switching state | High |

Time behavior

| | |
|---------------------|--------|
| Switching frequency | 250 Hz |
| Response time | 2.5 ms |
| Readiness delay | 300 ms |

Connection

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

Connection 1

| | |
|----------------------|-----------------------------|
| Function | Signal IN Voltage supply |
| Type of connection | Cable |
| Cable length | 2,000 mm |
| Sheathing material | PUR |
| Number of conductors | 4 -wire |
| Wire cross section | 0.21 mm ² |

Mechanical data

| | |
|----------------------------|---------------------------|
| Design | Cubic |
| Dimension (W x H x L) | 20.5 mm x 76.3 mm x 44 mm |
| Housing material | Plastic |
| Plastic housing | PC-PBT |
| Lens cover material | Plastic / PMMA |
| Net weight | 100 g |
| Housing color | Red |
| Type of fastening | Through-hole mounting |
| Compatibility of materials | ECOLAB |

Operation and display

| | |
|-----------------|------------|
| Type of display | LED |
| Number of LEDs | 2 Piece(s) |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -30 ... 60 °C |
| Ambient temperature, storage | -30 ... 70 °C |

Certifications

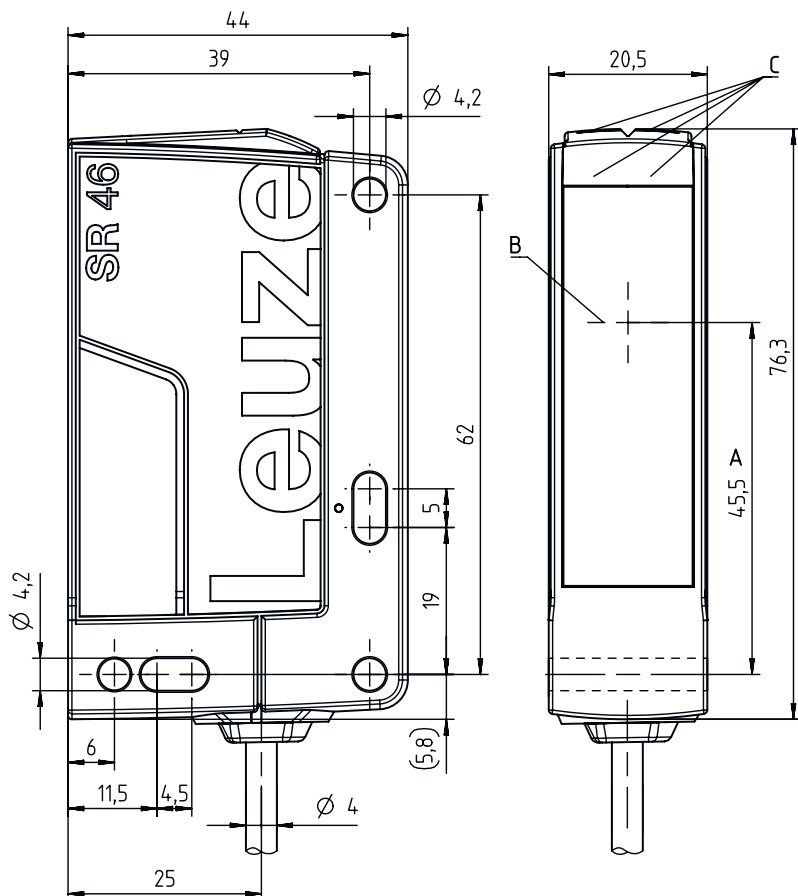
| | |
|----------------------|-------------------------------------|
| Degree of protection | IP 67 IP 69K |
| Protection class | III, Rating voltage 50V |
| Approvals | c TÜV NRTL US c UL US TÜV Süd |
| Standards applied | IEC 60947-5-2, IEC/EN 61496 |

Technical data

| | |
|-----------------------|----------|
| Customs tariff number | 85365019 |
| ECLASS 5.1.4 | 27272701 |
| ECLASS 8.0 | 27272701 |
| ECLASS 9.0 | 27272701 |
| ECLASS 10.0 | 27272701 |
| ECLASS 11.0 | 27272701 |
| ECLASS 12.0 | 27272701 |
| ECLASS 13.0 | 27272701 |
| ECLASS 14.0 | 27272701 |
| ECLASS 15.0 | 27272701 |
| ETIM 5.0 | EC001831 |
| ETIM 6.0 | EC001831 |
| ETIM 7.0 | EC001831 |
| ETIM 8.0 | EC001831 |
| ETIM 9.0 | EC001831 |
| ETIM 10.0 | EC001831 |

Dimensioned drawings

All dimensions in millimeters



- A Optical axis
- B Transmitter and receiver
- C Green/yellow indicator diodes

Electrical connection

Connection 1

| | |
|----------------------|----------------------|
| Function | Signal IN |
| | Voltage supply |
| Type of connection | Cable |
| Cable length | 2,000 mm |
| Sheathing material | PUR |
| Cable color | Black |
| Number of conductors | 4 -wire |
| Wire cross section | 0.21 mm ² |

Conductor color


Conductor assignment

| | |
|-------|--------|
| Brown | +24 V |
| White | n.c. |
| Blue | GND |
| Black | Active |

Operation and display

| LED | Display | Meaning |
|-----|--------------------------|-----------------------|
| 1 | Green, continuous light | Ready |
| 2 | Yellow, continuous light | Transmitter activated |

Suitable receivers

| | Part no. | Designation | Article | Description |
|-------------------------------------------------------------------------------------|----------|------------------|------------------------------------------|-----------------------------------------------------------|
|  | 50121920 | SLE46CI-70.K2/4P | Single light beam safety device receiver | Response time: 2.5 ms Connection: Cable, 2,000 mm, PUR |

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.

For UL applications:





- ⚡ Certification: UL 508, C22.2 No.14-13
- ⚡ Only for use in "class 2" circuits
- ⚡ These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/ CYJV7 or PVVA/PVVA7)

Further information


- Typ. operating range limit: max. attainable range without function reserve
- Operating range: recommended range with function reserve
- Light source: Average life expectancy 100,000h at an ambient temperature of 25 °C

Accessories


Connection technology - Connection unit

| | Part no. | Designation | Article | Description |
|-----------------------------------------------------------------------------------|----------|-------------|--------------|-------------|
|  | 547958 | MSI-TR1B-01 | Safety relay | |
|  | 547959 | MSI-TR1B-02 | Safety relay | |

Mounting technology - Mounting brackets


| | Part no. | Designation | Article | Description |
|-------------------------------------------------------------------------------------|----------|-------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50105315 | BT 46 | Mounting device | Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal |

Mounting technology - Rod mounts

| | Part no. | Designation | Article | Description |
|-------------------------------------------------------------------------------------|----------|--------------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50122797 | BTU 346M-D12 | Mounting system | Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Turning, 360°, Adjustable, Clampable Material: Metal |

Accessories

Muting - Mounting systems

| | Part no. | Designation | Article | Description |
|-----------------------------------------------------------------------------------|----------|--------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 50117252 | BTU 300M-D12 | Mounting system | Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal |

Note



A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.