

Technical data sheet

Throughbeam photoelectric sensor

Part no.: 50130466

LE49CI.UCH1/M4-TB



Figure can vary

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Technical data

Basic data

| | |
|---------------------|-----------------------|
| Series | 49C |
| Operating principle | Throughbeam principle |
| Device type | Receiver |

Special version

| | |
|-----------------|---------|
| Special version | Heating |
|-----------------|---------|

Optical data

| | |
|-----------------------|----------------------------|
| Operating range | Guaranteed operating range |
| Operating range | 0 ... 120 m |
| Operating range limit | Typical operating range |
| Operating range limit | 0.5 ... 150 m |

Electrical data

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

Performance data

| | |
|-----------------------------|---------------------|
| Supply voltage U_B | 20 ... 250 V, AC/DC |
| Power consumption (with AC) | 1.5 V·A |

Outputs

| | |
|-------------------------------------|------------|
| Number of digital switching outputs | 1 Piece(s) |
|-------------------------------------|------------|

Switching outputs

| | |
|-------------------------|-------------|
| Voltage type | AC/DC |
| Switching current, max. | 400 mA |
| Switching power | 100 V·A |
| Switching voltage | 250 V AC/DC |

Switching output 1

| | |
|---------------------|--|
| Assignment | Connection 1, pin 4 |
| Switching element | MOSFET semiconductor, NO (normally open) |
| Switching principle | Light/dark reversible |

Timing

| | |
|---------------------|--------|
| Switching frequency | 150 Hz |
| Response time | 3.3 ms |
| Readiness delay | 300 ms |

Connection

Connection 1

| | |
|--------------------|----------------------|
| Function | Signal OUT |
| | Voltage supply |
| Type of connection | Terminal |
| Type of terminal | Spring-cage terminal |
| No. of pins | 5 -pin |

Mechanical data

| | |
|-----------------------|---|
| Dimension (W x H x L) | 31 mm x 104 mm x 55.5 mm |
| Housing material | Plastic |
| Plastic housing | PC |
| Lens cover material | Plastic |
| Net weight | 150 g |
| Housing color | Red |
| Type of fastening | Through-hole mounting Via optional mounting device |

Operation and display

| | |
|-------------------------------------|---|
| Type of display | LED |
| Number of LEDs | 3 Piece(s) |
| Operational controls | 270° potentiometer |
| | Teach button |
| Function of the operational control | Activation of the time module for dropout delay |
| | Light/dark switching |
| | Sensitivity adjustment |

Environmental data

| | |
|--------------------------------|---------------|
| Ambient temperature, operation | -40 ... 60 °C |
| Ambient temperature, storage | -40 ... 70 °C |

Certifications

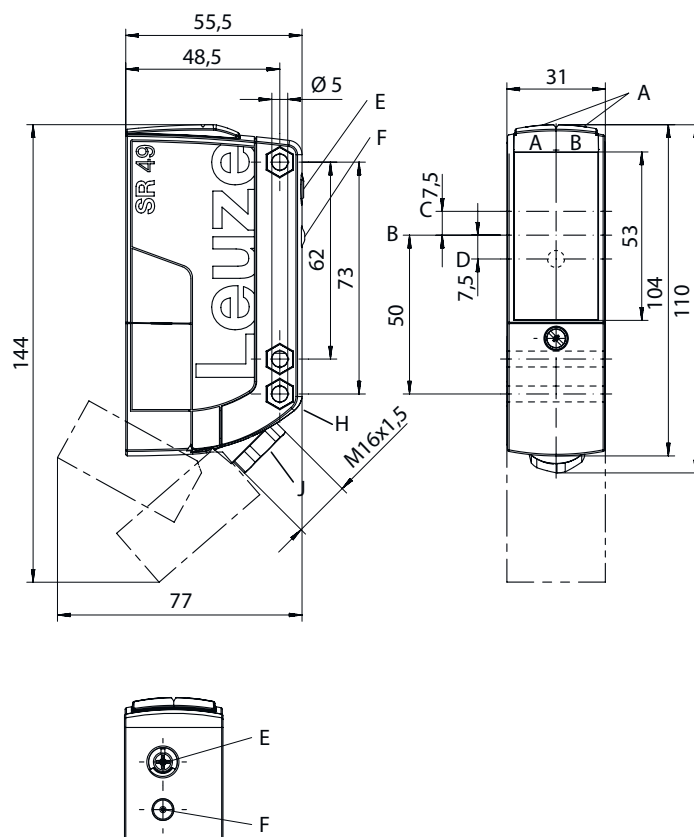
| | |
|----------------------|---------------|
| Degree of protection | IP 67 |
| Protection class | II |
| Certifications | c UL US |
| Standards applied | IEC 60947-5-2 |

Classification

| | |
|-----------------------|----------|
| Customs tariff number | 85365080 |
| eCl@ss 5.1.4 | 27270901 |
| eCl@ss 8.0 | 27270901 |
| eCl@ss 9.0 | 27270901 |
| eCl@ss 10.0 | 27270901 |
| eCl@ss 11.0 | 27270901 |
| ETIM 5.0 | EC002716 |
| ETIM 6.0 | EC002716 |
| ETIM 7.0 | EC002716 |

Dimensioned drawings

All dimensions in millimeters



AA Green LED
 AB Yellow LED
 B Optical axis
 C Receiver

D Yellow LED
 E Sensitivity adjustment
 F Teach button
 G Countersinking for SK nut M5, 4.2 mm deep

J Cable entry with M16x1.5 screw fitting for Ø
 5 ... 10 mm

Electrical connection

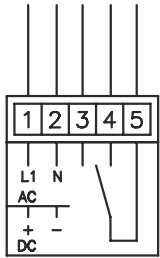
Connection 1

| | |
|--------------------|----------------------|
| Function | Signal OUT |
| | Voltage supply |
| Type of connection | Terminal |
| Type of terminal | Spring-cage terminal |
| No. of pins | 5-pin |

Pin Pin assignment

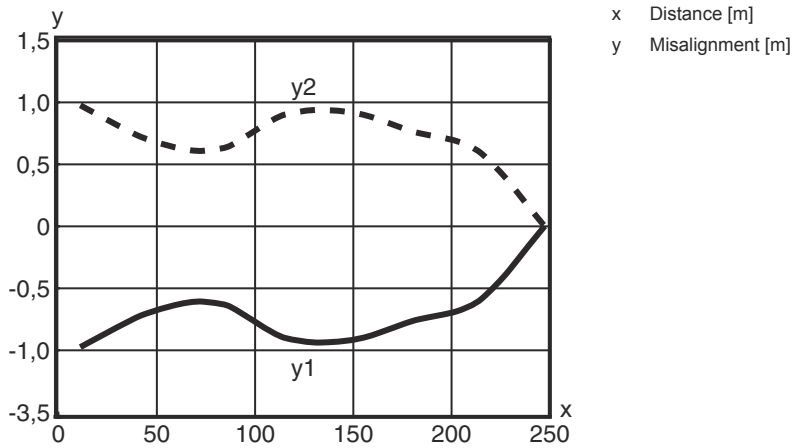
| | |
|---|--------|
| | 1 |
| 1 | + / L1 |
| | 2 |
| 2 | - / N |
| | 3 |
| 3 | n.c. |
| | 4 |
| 4 | OUT 1 |
| | 5 |
| 5 | COM |

Circuit diagrams

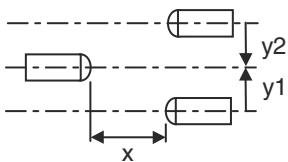


Diagrams

Typ. response behavior




x Distance [m]
y Misalignment [m]



Operation and display

| LED | Display | Meaning |
|-----|--|---|
| 1 | Green, continuous light | Operational readiness |
| 2 | Yellow, continuous light | Light path free |
| | Yellow, flashing | Light path free, no function reserve |
| 3 | Yellow, continuous light (behind lens cover) | Light path free |
| | Yellow, flashing (behind lens cover) | Light path free, minimum function reserve |

Suitable transmitters

| | Part no. | Designation | Article | Description |
|---|----------|---------------|--|--|
|  | 50130463 | LS49CI.UCH/TB | Throughbeam photoelectric sensor transmitter | Special version: Heating Operating range limit: 0 ... 150 m Light source: LED, Infrared Supply voltage: AC/DC Connection: Terminal, 5 -pin |

Part number code

Part designation: **AAA49Cd.EEfG/iJ-KL**

| | |
|---------------|--|
| AAA49C | Operating principle / construction PRK49C: retro-reflective photoelectric sensor with polarization filter HT49C: diffuse reflection sensor with background suppression LS49C: throughbeam photoelectric sensor transmitter LE49C: throughbeam photoelectric sensor receiver |
| d | Light type n/a: red light l: infrared light |
| EE | Operating voltage n/a: 10 ... 30 V, DC UC: 20 ... 250V AC/DC (all-mains design) |
| f | Equipment H: with heating D: depolarizing media 1: 270° potentiometer 8: activation input (activation with high signal) |
| iJ | Switching output / Function / OUT1/OUT2 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching W: warning output TS: Relay, NC contact/NO contact M4: Low impedance MOSFET semiconductor switching output, NO contact |
| KL | Electrical connection TB: Terminal block - terminal compartment with spring terminals (5 x 1.5mm ²) n/a: cable, standard length 2000 mm |

Note



A list with all available device types can be found on the Leuze website at www.leuze.com.

Notes



Observe intended use!




- ⚠ This product is not a safety sensor and is not intended as personnel protection.
- ⚠ The product may only be put into operation by competent persons.
- ⚠ Only use the product in accordance with its intended use.

Further information


- All-insulated, rating voltage 250 VAC
- With inductive or capacitive load, provide suitable spark extinction (snubber)

Accessories

Mounting technology - Mounting brackets

| | Part no. | Designation | Article | Description |
|---|----------|-------------|-----------------|--|
|  | 50025570 | BT 96 | 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 |
|--|----------|--------------|-----------------|---|
|  | 50128380 | BTU 460M-D12 | Mounting system | Design of mounting device: Mounting system Fastening, at system: For 12 mm rod Mounting bracket, at device: Screw type Type of mounting device: 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.