

## Technical data sheet

### Throughbeam photoelectric sensor receiver

Part no.: 50127441

LE49C.UC/TS-TB



For illustration purposes only

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## Technical data

### Basic data

Series	49C
Operating principle	Throughbeam principle
Device type	Receiver

### Optical data

Operating range	0 ... 120 m
Operating range	Guaranteed operating range
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	2 Piece(s)
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#### Switching outputs

Voltage type	AC/DC
Switching current, max.	2,500 mA
Switching voltage	250 V AC/DC

#### Switching output 1

Assignment	Connection 1, pin 3
Switching element	Relay, NC
Switching principle	Light switching

#### Switching output 2

Assignment	Connection 1, pin 5
Switching element	Relay, NO
Switching principle	Light switching

### Time behavior

Switching frequency	25 Hz
Response time	20 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)

### Environmental data

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

### Certifications

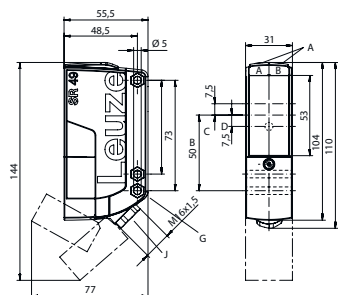
Degree of protection	IP 67
Protection class	II
Certifications	c UL US
Standards applied	IEC 60947-5-2

### Classification

Customs tariff number	85365080
ECLASS 5.1.4	27270901
ECLASS 8.0	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ECLASS 13.0	27270901
ECLASS 14.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
ETIM 9.0	EC002716

# Dimensioned drawings

All dimensions in millimeters



- AA Green LED
- AB Yellow LED
- B Optical axis
- C Receiver
- D Yellow LED
- G Countersinking for SK nut M5, 4.2 mm deep
- J Cable entry with M16x 1.5 screw fitting for Ø5 ... 10 mm

## Electrical connection

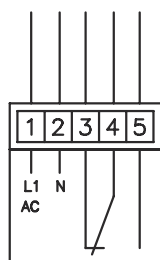
### Connection 1

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

Terminal	Assignment
1	+ / L1
2	- / N
3	OUT 1
4	COM
5	OUT 2

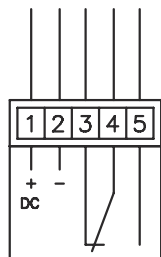
## Circuit diagrams

AC



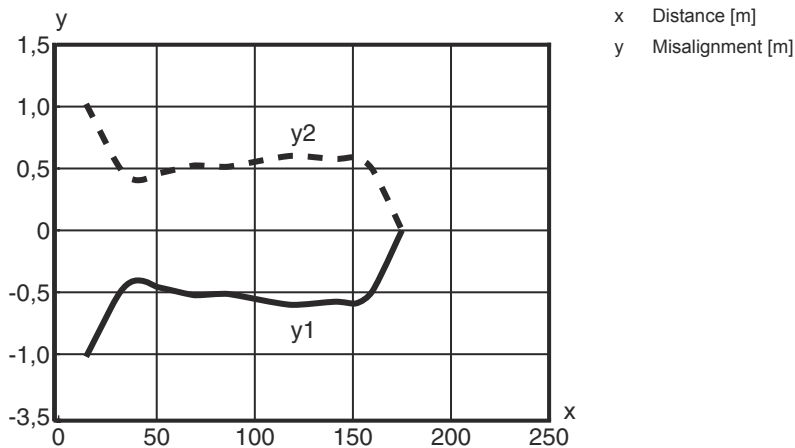
# Circuit diagrams

DC

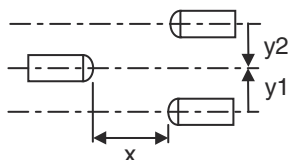


# Diagrams

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 ( <b>alignment display</b> behind lens cover)	Light path free
	Yellow, flashing ( <b>alignment display</b> behind lens cover)	Light path free, minimum function reserve

## Suitable transmitters

	Part no.	Designation	Article	Description
	50127437	LS49C.UC-TB	Throughbeam photoelectric sensor transmitter	Operating range limit: 0 ... 150 m Light source: LED, Red Supply voltage: AC/DC Connection: Terminal, 5 -pin

## Part number code

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

<b>AAA49C</b>	<b>Operating principle / construction</b> 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
<b>d</b>	<b>Light type</b> n/a: red light l: infrared light
<b>EE</b>	<b>Operating voltage</b> n/a: 10 ... 30 V, DC UC: 20 ... 250V AC/DC (all-mains design)
<b>f</b>	<b>Equipment</b> H: With heating D: Depolarizing media 1: 270° potentiometer 8: activation input (activation with high signal)
<b>iJ</b>	<b>Switching output / Function / OUT1OUT2</b> 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 X: pin not used
<b>KL</b>	<b>Electrical connection</b> TB: Terminal block - terminal compartment with spring terminals (5 x 1.5mm <sup>2</sup> ) n/a: cable, standard length 2000 mm M12: M12 connector, 4-pin (plug)

### Note



↪ A list with all available device types can be found on the Leuze website at [www.leuze.com](http://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.