



**Part no.: 50134458**  
**LE49CI.1/4P-TB**  
**Throughbeam photoelectric sensor receiver**



Figure can vary

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## Technical data

<b>Basic data</b>	
Series	49C
Operating principle	Throughbeam principle
Device type	Receiver
<b>Optical data</b>	
Operating range	Guaranteed operating range
Operating range	0.5 ... 120 m
Operating range limit	Typical operating range
Operating range limit	0 ... 150 m
<b>Electrical data</b>	
Protective circuit	Polarity reversal protection Short circuit protected Transient protection
<b>Performance data</b>	
Supply voltage $U_B$	10 ... 30 V , DC , Incl. residual ripple
Residual ripple	0 ... 15 % , From $U_B$
Open-circuit current	0 ... 20 mA
<b>Outputs</b>	
Number of digital switching outputs	2 Piece(s)
<b>Switching outputs</b>	
Voltage type	DC
Switching current, max.	100 mA
Switching voltage	High: $\geq(U_B-2V)$ Low: $\leq 2V$
<b>Switching output 1</b>	
Assignment	Connection 1, pin 3
Switching element	Transistor , PNP
Switching principle	Light switching
<b>Switching output 2</b>	
Assignment	Connection 1, pin 4
Switching element	Transistor , PNP
Switching principle	Dark switching
<b>Timing</b>	
Switching frequency	500 Hz
Response time	1 ms
Readiness delay	300 ms
<b>Connection</b>	
<b>Connection 1</b>	
Function	Signal OUT Voltage supply
Type of connection	Terminal
Type of terminal	Spring-cage terminal
No. of pins	5 -pin
<b>Mechanical data</b>	

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Dimension (W x H x L)	31 mm x 104 mm x 55.5 mm
Housing material	Plastic , 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

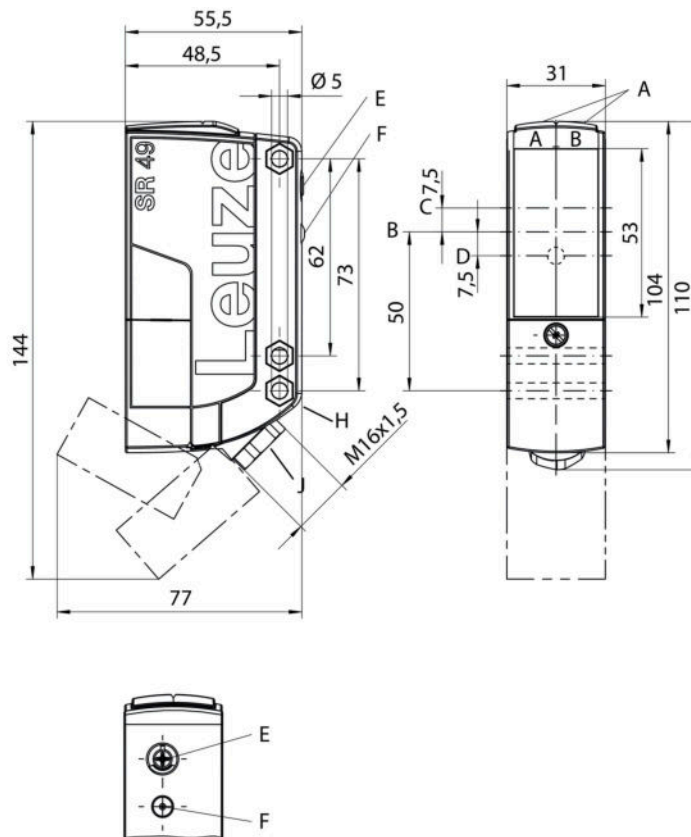
Degree of protection	IP 67
Protection class	II
Certifications	c UL US
Standards applied	IEC 60947-5-2

### Classification

Customs tariff number	85365019
eCl@ss 8.0	27270901
eCl@ss 9.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	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 M16 x 1.5 screw fitting for Ø 5 ... 10 mm

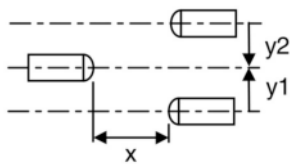
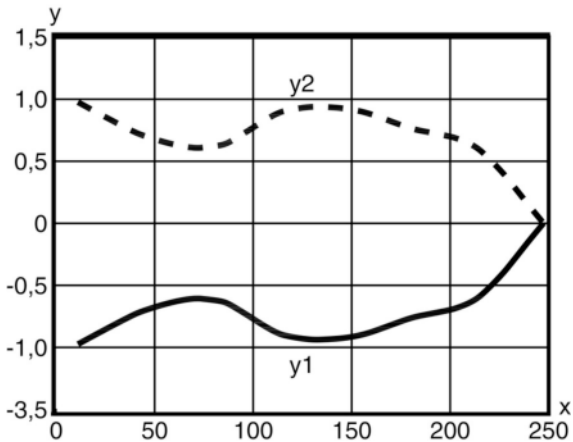
## Electrical connection

Connection 1	
Function	Signal OUT Voltage supply
Type of connection	Terminal
Type of terminal	Spring-cage terminal
No. of pins	5 -pin

Terminal	Assignment
1	V+
2	GND
3	OUT 1
4	OUT 2
5	n.c.

## Diagrams

Typ. response behavior




x Distance [m]  
y Misalignment [m]

## Operation and display


LEDs

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
	50134452	LS49CI-TB	Throughbeam photoelectric sensor transmitter	Operating range limit: 0 ... 150 m Light source: LED, Infrared Supply voltage: DC Connection: Terminal, 5 -pin

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	Part no.	Designation	Article	Description
	50134453	LS49CI.8-TB	Throughbeam photoelectric sensor transmitter	Operating range limit: 0 ... 150 m Light source: LED, Infrared Supply voltage: DC Connection: Terminal, 5 -pin Special design: Activation input

## Part number code

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

AAA49C	<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
d	<b>Light type:</b> n/a: red light l: infrared light
EE	<b>Operating voltage:</b> n/a: 10 ... 30 V, DC UC: 20 ... 250V AC/DC (all-mains design)
f	<b>Equipment:</b> H: with heating D: depolarizing media 1: 270° potentiometer 8: activation input (activation with high signal)
iJ	<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
KL	<b>Electrical connection:</b> TB: Terminal block - terminal compartment with spring terminals (5 x 1.5 mm <sup>2</sup> ) n/a: cable, standard length 2000 mm

### Note

A list with all available device types can be found on the Leuze electronic 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.

### For UL applications:


- For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).
- 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)

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- All-insulated, rating voltage 250 VAC

## 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 electronic website in the Download tab of the article detailed page.