

Technical data sheet Throughbeam photoelectric sensor receiver Part no.: 50137186 LE3C/6G-5000



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3C

Receiver

Technical data

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Basic data

Series **Operating principle** Device type

Optical data

Operating range Operating range Operating range limit Operating range limit

0.05 ... 8.5 m Guaranteed operating range 0.05 ... 10 m Typical operating range

Throughbeam principle

Electrical data

Protective circuit

Polarity reversal protection Short circuit protected

Performance data	
Supply voltage U _B	10 30 V, DC, Incl. residual ripple
Residual ripple	0 15 %, From U _B
Open-circuit current	0 20 mA

Outputs

Number of digital switching outputs 2 Piece(s)

Switching outputs	
Voltage type	DC
Switching current, max.	100 mA
Switching voltage	high: ≥(U _B -2V)
	low: ≤ 2 V
Switching output 1	
Switching element	Transistor, Push-pull
Switching principle	Light switching (PNP)/dark switching (NPN)
Switching output 2	
Switching element	Transistor, Push-pull
Switching principle	Dark switching (PNP)/light switching (NPN)
ne behavior	

Tim

Switching frequency	1,000 Hz
Response time	0.5 ms
Readiness delay	300 ms

Connection

Connection 1	
Function	Signal OUT
	Voltage supply
Type of connection	Cable
Cable length	5,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm²

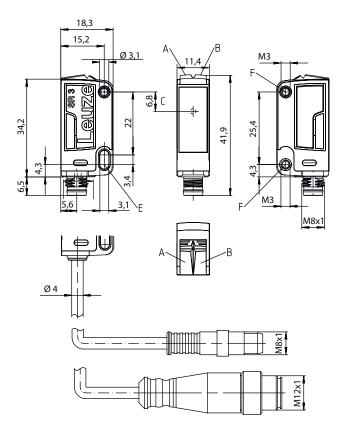
Mechanical data

Dimension (W x H x L)	11.4 mm x 34.2 mm x 18.3 mm
Housing material	Plastic
Plastic housing	PC-ABS
Lens cover material	Plastic / PMMA
Net weight	100 g
Housing color	Red
Type of fastening	Through-hole mounting
	Via optional mounting device
Compatibility of materials	ECOLAB
Operation and display	
Type of display	LED
Number of LEDs	2 Piece(s)
Environmental data	
Ambient temperature, operation	-40 60 °C
Ambient temperature, storage	-40 70 °C
Certifications	
Degree of protection	IP 67
0	IP 69K
Protection class	
Approvals	c UL US
Standards applied	IEC 60947-5-2
Classification	
Customs tariff number	85365019
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
ECLASS 15.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
ETIM 9.0	EC002716
ETIM 10.0	EC002716

Dimensioned drawings



All dimensions in millimeters



- A Green LED
- B Yellow LED
- C Optical axis
- E Mounting sleeve (standard)
- F Threaded sleeve (3C.B series)

Electrical connection

Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Cable
Cable length	5,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm ²

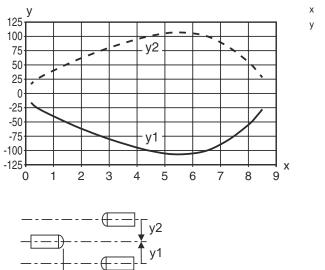
Conductor color

Brown	V+
White	OUT 2
Blue	GND
Black	OUT 1

Diagrams

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Typ. response behavior



- Distance [m]
- y Misalignment [mm]

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

Suitable transmitters

 Part no.	Designation	Article	Description
50137176	LS3C/8X-5000	Throughbeam photoelectric sensor transmitter	Special version: Activation input Operating range limit: 0.05 10 m Light source: LED, Red Supply voltage: DC Connection: Cable, 5,000 mm, 4 -wire

Part number code

Part designation: AAA 3C d EE-f.GG H/i J-K

АААЗС	Operating principle / construction HT3C: Diffuse reflection sensor with background suppression LS3C: Throughbeam photoelectric sensor transmitter LE3C: Throughbeam photoelectric sensor receiver PRK3C: Retro-reflective photoelectric sensor with polarization filter ODT3C: Distance diffuse sensor with background suppression
d	Light type n/a: red light l: infrared light
EE	Light source n/a: LED L1: laser class 1 L2: laser class 2 PP: Power PinPoint® LED

Part number code

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f	Preset range (optional) n/a: operating range acc. to data sheet xxxF: Preset range [mm] 2M: operating range of 2 meters
GG	Equipment n/a: standard A: Autocollimation principle (single lens) for positioning tasks B: Housing model with two M3 threaded sleeves, brass F: Permanently set range L: Long light spot S: small light spot T: autocollimation principle (single lens) for highly transparent bottles without tracking TT: autocollimation principle (single lens) for highly transparent bottles with tracking TT: autocollimation principle (single lens) for highly transparent bottles with tracking V: V-optics XL: Extra long light spot X: extended model HF: Suppression of HF illumination (LED)
н	Operating range adjustment n/a with HT: range adjustable via 8-turn potentiometer n/a with retro-reflective photoelectric sensors (PRK): operating range not adjustable 1: 270° potentiometer 3: teach-in via button 6: auto-teach
I	Switching output/function OUT 1/IN: Pin 4 or black conductor 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching 6: push-pull switching output, PNP light switching, NPN dark switching G: Push-pull switching output, PNP dark switching, NPN dark switching L: IO-Link interface (SIO mode: PNP light switching, NPN dark switching) 8: activation input (activation with high signal) X: pin not used 1: IO-Link / light switching (NPN) / dark switching (PNP)
J	Switching output / function OUT 2/IN: pin 2 or white conductor 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching 6: push-pull switching output, PNP light switching, NPN dark switching G: Push-pull switching output, PNP dark switching, NPN light switching W: warning output X: pin not used 8: activation input (activation with high signal) 9: deactivation input (deactivation with high signal) T: teach-in via cable
к	Electrical connection n/a: cable, standard length 2000 mm, 4-wire 5000: cable, standard length 5000 mm, 4-wire M8: M8 connector, 4-pin (plug) M8.3: M8 connector, 3-pin (plug) 200-M8: cable, length 200 mm with M8 connector, 4-pin, axial (plug) 200-M8.3: cable, length 200 mm with M8 connector, 3-pin, axial (plug) 200-M12: cable, length 200 mm with M12 connector, 4-pin, axial (plug)
	Note
	to 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.

 $\ensuremath{^{\ensuremath{\oplus}}}$ Only use the product in accordance with its intended use.



For UL applications:

b 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)

Further information

- The push-pull switching outputs must not be connected in parallel.
- · Response time: For short decay times, an ohmic load of approx. 5 kOhm is recommended
- Sum of the output currents for both outputs, 50 mA for ambient temperatures > 40 $^\circ\text{C}$

Accessories

Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
a.	50117829	BTP 200M-D12	Mounting system	Design of mounting device: Protection hood Fastening, at system: For 12 mm rod Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50117255	BTU 200M-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 M3 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.

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