Leuze electronic
the sensor people

Part no.: 50137175
LS3C/8X
Throughbeam photoelectric sensor transmitter

ECOLAB

CE

IP 69K

IP 67

c UL us LISTED

Figure can vary

Contents

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SMART SENSOR BUSINESS

Part no.: 50137175 – LS3C/8X – Throughbeam photoelectric sensor transmitter

Technical data

Basic data	
Series	3C
Operating principle	Throughbeam principle
Device type	Transmitter

Special design	
Special design	Activation input

Optical data	
Operating range	Guaranteed operating range
Operating range	0.05 ... 8.5 m
Operating range limit	Typical operating range
Operating range limit	0.05 ... 10 m
Beam profile	Divergent
Light source	LED, Red
LED light wavelength	632 nm
LED protection class	Exempt group (in acc. with EN 62471)
Transmitted-signal shape	Pulsed
Light-spot size [at sensor distance]	4 mm [100 mm]
Type of light-spot geometry	Round

Electrical data	
Protective circuit	Polarity reversal protection Short circuit protected

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

Inputs	
Number of activation inputs	1 Piece(s)

Activation inputs	
Voltage type	DC
Switching voltage	high: ≥8V Low: ≤2V

Activation input 1	
Active switching state	High

Timing	
Readiness delay	300 ms

Connection	

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Connection 1	
Type of connection	Cable
Function	Signal IN Voltage supply
Cable length	2,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm²

Mechanical data	
Design	Cubic
Dimension (W x H x L)	11.4 mm x 34.2 mm x 18.3 mm
Housing material	Plastic, PC-ABS
Lens cover material	Plastic / PMMA
Net weight	50 g
Housing color	Red
Type of fastening	Via optional mounting device 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	-40 ... 60 °C
Ambient temperature, storage	-40 ... 70 °C

Certifications	
Degree of protection	IP 69K IP 67
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

Classification	
eCl@ss 8.0	27270901
eCl@ss 9.0	27270901
ETIM 5.0	EC002716

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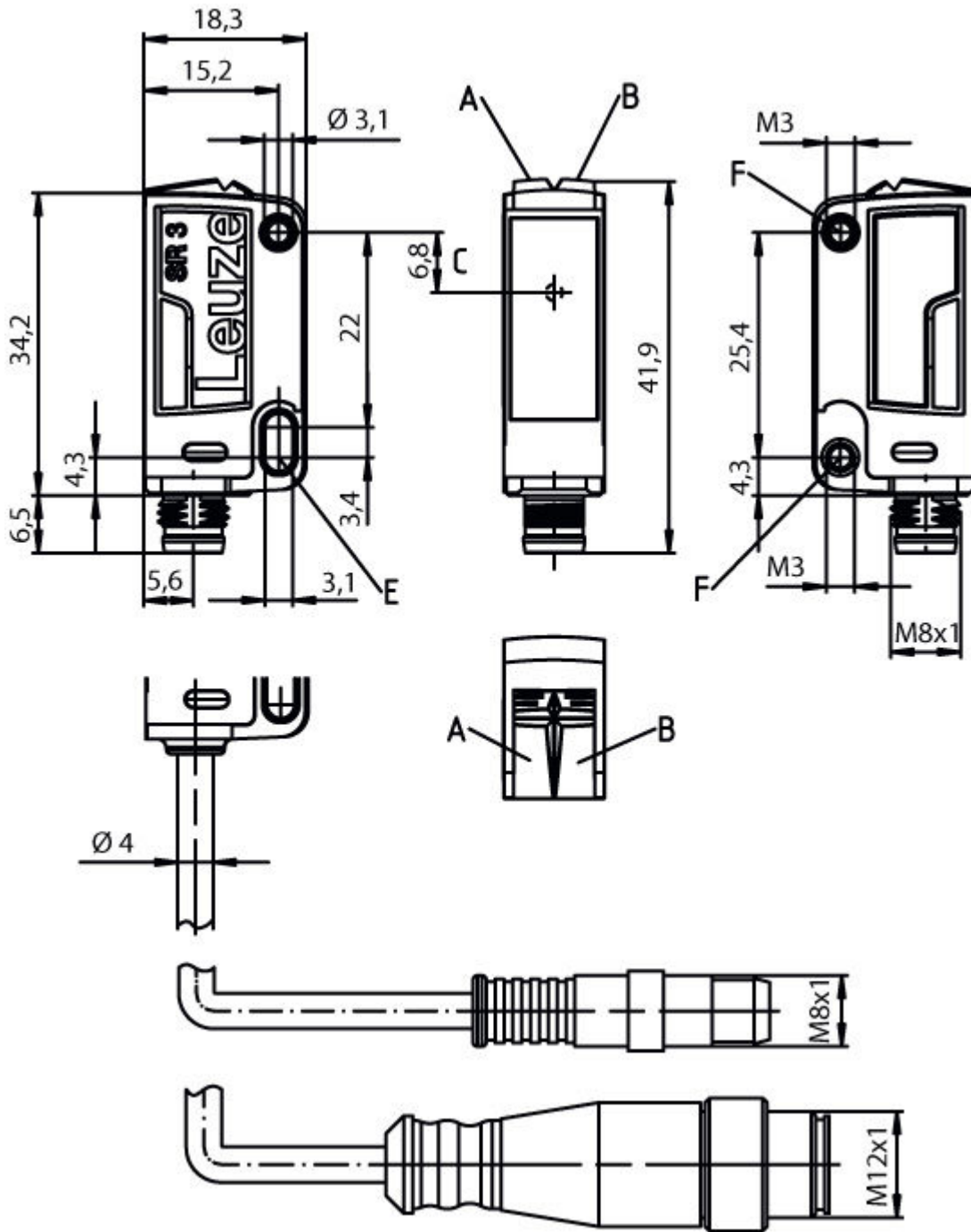3 / 8

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Suitable receivers

	Part no.	Designation	Article	Description
	50137184	LE3C/6G	Throughbeam photoelectric sensor receiver	Operating range limit: 0.05 ... 10 m Supply voltage: DC Digital switching outputs: 2 Piece(s) Digital switching output 1: Transistor, Push-pull, Light switching (PNP)/dark switching (NPN) Digital switching output 2: Transistor, Push-pull, Dark switching (PNP)/light switching (NPN) Switching frequency: 1,000 Hz Connection: Connector, M8, Metal, 4 -pin

Dimensioned drawings

All dimensions in millimeters

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

Electrical connection

Connection 1	
Type of connection	Cable
Function	Signal IN
Voltage supply

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Connection 1	
Cable length	2,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm²

Conductor color	**Conductor assignment**
Brown	V+
White	n.c.
Blue	GND
Black	IN 1

Diagrams

Typ. response behavior
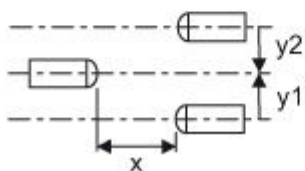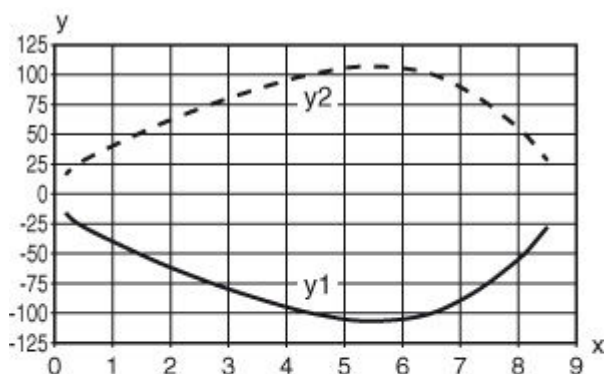
x   Distance [m]
y   Misalignment [mm]

Operation and display

LEDs

LED	Display	Meaning
1	Green, continuous light	Operational readiness
2	Yellow, continuous light	Transmitted beam active

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Accessories

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50118542	BT 200M.5	Mounting bracket	Design of mounting device: Angle, L-shape Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Adjustable Material: Stainless steel
	50124651	BT 205M	Mounting device set	Contains: 10x Design of mounting device: Angle, L-shape Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal
	50060511	BT 3	Mounting device	Design of mounting device: Angle, L-shape Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal
	50105585	BT 3.1	Mounting strap set	Contains: 10x Design of mounting device: Retaining clip Mounting bracket, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid Material: Metal
	50105546	BT 3B	Mounting device	Design of mounting device: Angle, L-shape Mounting bracket, 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
	50117830	BTP 200M-D10	Mounting system	Design of mounting device: Protection hood Mounting bracket, at system: For 10 mm rod Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50117829	BTP 200M-D12	Mounting system	Design of mounting device: Protection hood Mounting bracket, at system: For 12 mm rod Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50117828	BTP 200M-D14	Mounting system	Design of mounting device: Protection hood Mounting bracket, at system: For 14 mm rod Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

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	Part no.	Designation	Article	Description
	50117256	BTU 200M-D10	Mounting system	Contains: 2x M3 x 18 screw, 2x position washers Design of mounting device: Mounting system Mounting bracket, at system: For 10 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50117255	BTU 200M-D12	Mounting system	Contains: 2x M3 x 18 screw, 2x position washers Design of mounting device: Mounting system Mounting bracket, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50117254	BTU 200M-D14	Mounting system	Contains: 2x M3 x 18 screw, 2x position washers Design of mounting device: Mounting system Mounting bracket, at system: For 14 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50120426	BTU 200M.5-D12	Mounting system	Contains: 2x M3 x 18 screw, 2x M3 mounting nut, 2x position washers Design of mounting device: Mounting system Mounting bracket, at system: For 12 mm rod Mounting bracket, at device: Screw type Type of mounting device: Turning, 360°, Clampable, Adjustable Material: Stainless steel

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)

- Light source: Average life expectancy 100,000 h at an ambient temperature of 25 °C

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