Technical data sheet

Throughbeam photoelectric sensor transmitter

Part no.: 50147129

LS36/XX

Figure can vary

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Technical data

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Basic data

Series	36
Operating principle	Throughbeam principle
Device type	Transmitter

Optical data

Operating range	Guaranteed operating range
Operating range	0.5 ... 80 m
Operating range limit	Typical operating range
Operating range limit	0 ... 100 m
Beam path	Divergent
Light source	LED, Red
Wavelength	645 nm
Transmitted-signal shape	Pulsed
LED group	Exempt group (in acc. with EN 62471)

Electrical data

Protective circuit	Polarity reversal protection
	Short circuit protected
	Transient protection

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

Time behavior

Readiness delay	300 ms

Connection

Connection 1

Function	Voltage supply
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	3 -wire
Wire cross section	0.14 mm²

Mechanical data

Dimension (W x H x L)	20.5 mm x 76.3 mm x 44 mm
Housing material	Plastic
Plastic housing	PC-PBT
Lens cover material	Plastic / PMMA
Net weight	100 g
Housing color	Black
Type of fastening	Through-hole mounting
	Via optional mounting device

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
Protection class	III
Certifications	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
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716

Dimensioned drawings

All dimensions in millimeters

A   Transmitter
C   Optical axis
DA Green LED
DB Yellow LED
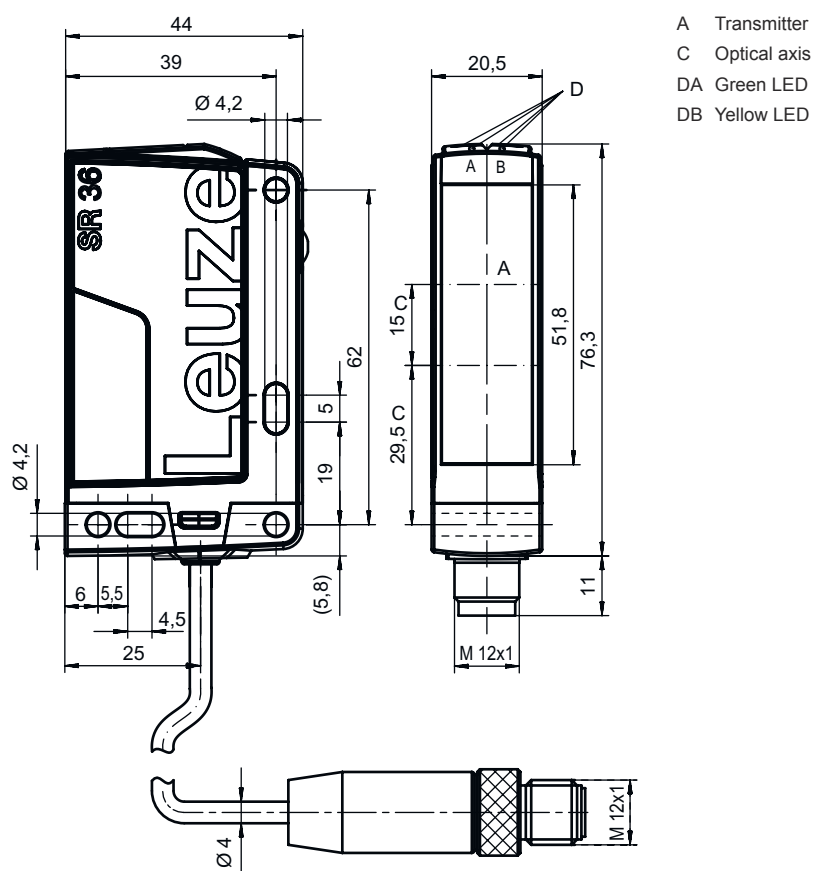
Electrical connection

Connection 1

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Cable color	Black
Number of conductors	3 -wire
Wire cross section	0.14 mm²

Conductor color	Conductor assignment
Brown	V+
Black	n.c.
Blue	GND

Operation and display

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

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Suitable receivers

Part no.	Designation	Article	Description
50147140	LE36.1/2	Throughbeam photoelectric sensor receiver	Operating range limit: 0 ... 100 m Supply voltage: DC Digital switching outputs: 1 Piece(s) Switching output 1: Transistor, NPN, Light switching Switching frequency: 300 Hz Connection: Cable, 2,000 mm, 3 -wire Operational controls: 270° potentiometer
50147138	LE36.1/4	Throughbeam photoelectric sensor receiver	Operating range limit: 0 ... 100 m Supply voltage: DC Digital switching outputs: 1 Piece(s) Switching output 1: Transistor, PNP, Light switching Switching frequency: 300 Hz Connection: Cable, 2,000 mm, 3 -wire Operational controls: 270° potentiometer
50147141	LE36.1/N	Throughbeam photoelectric sensor receiver	Operating range limit: 0 ... 100 m Supply voltage: DC Digital switching outputs: 1 Piece(s) Switching output 1: Transistor, NPN, Dark switching Switching frequency: 300 Hz Connection: Cable, 2,000 mm, 3 -wire Operational controls: 270° potentiometer
50147139	LE36.1/P	Throughbeam photoelectric sensor receiver	Operating range limit: 0 ... 100 m Supply voltage: DC Digital switching outputs: 1 Piece(s) Switching output 1: Transistor, PNP, Dark switching Switching frequency: 300 Hz Connection: Cable, 2,000 mm, 3 -wire Operational controls: 270° potentiometer

Part number code

Part designation: **AAA36 D.E/FG-K**

AAA36	**Operating principle / construction** HT36: Diffuse reflection sensor with background suppression LS36: Throughbeam photoelectric sensor transmitter LE36: Throughbeam photoelectric sensor receiver PRK36: Retro-reflective photoelectric sensor with polarization filter
D	**Light type** n/a: red light I: infrared light
E	**Equipment** n/a: standard 1: 270° potentiometer D: Depolarizing media
FG	**Switching output / Function** 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching X: pin not used
K	n/a: cable, standard length 2000 mm, 3-wire 200-M12: cable, length 200 mm with M12 connector, 4-pin, axial (plug) 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.

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Notes

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⚠️	**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.

ℹ️	**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)

Further information

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

Accessories

Mounting technology - Mounting brackets

Part no.	Designation	Article	Description
50105315	BT 46	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
50117252	BTU 300M-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 M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

ℹ️	**Note**
	↳ A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.