



Figure can vary

**Part no.: 50138591**  
**LE15/2X**  
**Throughbeam photoelectric sensor receiver**



## Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Diagrams
- Operation and display
- Suitable transmitters
- Part number code
- Notes
- Accessories

## Technical data

<b>Basic data</b>	
Series	15
Operating principle	Throughbeam principle
Device type	Receiver
<b>Optical data</b>	
Operating range	Guaranteed operating range
Operating range	0 ... 25 m
Operating range limit	Typical operating range
Operating range limit	0 ... 30 m
<b>Electrical data</b>	
Protective circuit	Polarity reversal protection Short circuit protected
<b>Performance data</b>	
Supply voltage $U_B$	10 ... 30 V, DC, Incl. residual ripple
Residual ripple	0 ... 15 %, From $U_{B<sub>B</sub>}$
Open-circuit current	0 ... 20 mA
<b>Outputs</b>	
Number of digital switching outputs	1 Piece(s)
<b>Switching outputs</b>	
Voltage type	DC
Switching current, max.	100 mA
Switching voltage	high: $\geq(U_{B<sub>B</sub>-2.5V)$ low: $\leq 2.5V$
<b>Switching output 1</b>	
Switching element	Transistor, NPN
Switching principle	Light switching
<b>Timing</b>	
Switching frequency	500 Hz
Response time	1 ms
Readiness delay	300 ms
<b>Connection</b>	
<b>Connection 1</b>	
Type of connection	Cable
Function	Signal OUT Voltage supply
Cable length	2,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm <sup>2</sup>
<b>Mechanical data</b>	
Dimension (W x H x L)	15 mm x 42.7 mm x 30 mm
Housing material	Plastic, ABS
Lens cover material	Plastic

**Part no.: 50138591 – LE15/2X – Throughbeam photoelectric sensor receiver**

Net weight	37 g
Housing color	Black
Type of fastening	Through-hole mounting Via optional mounting device

**Operation and display**

Type of display	LED
Number of LEDs	1 Piece(s)

**Environmental data**

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

**Certifications**

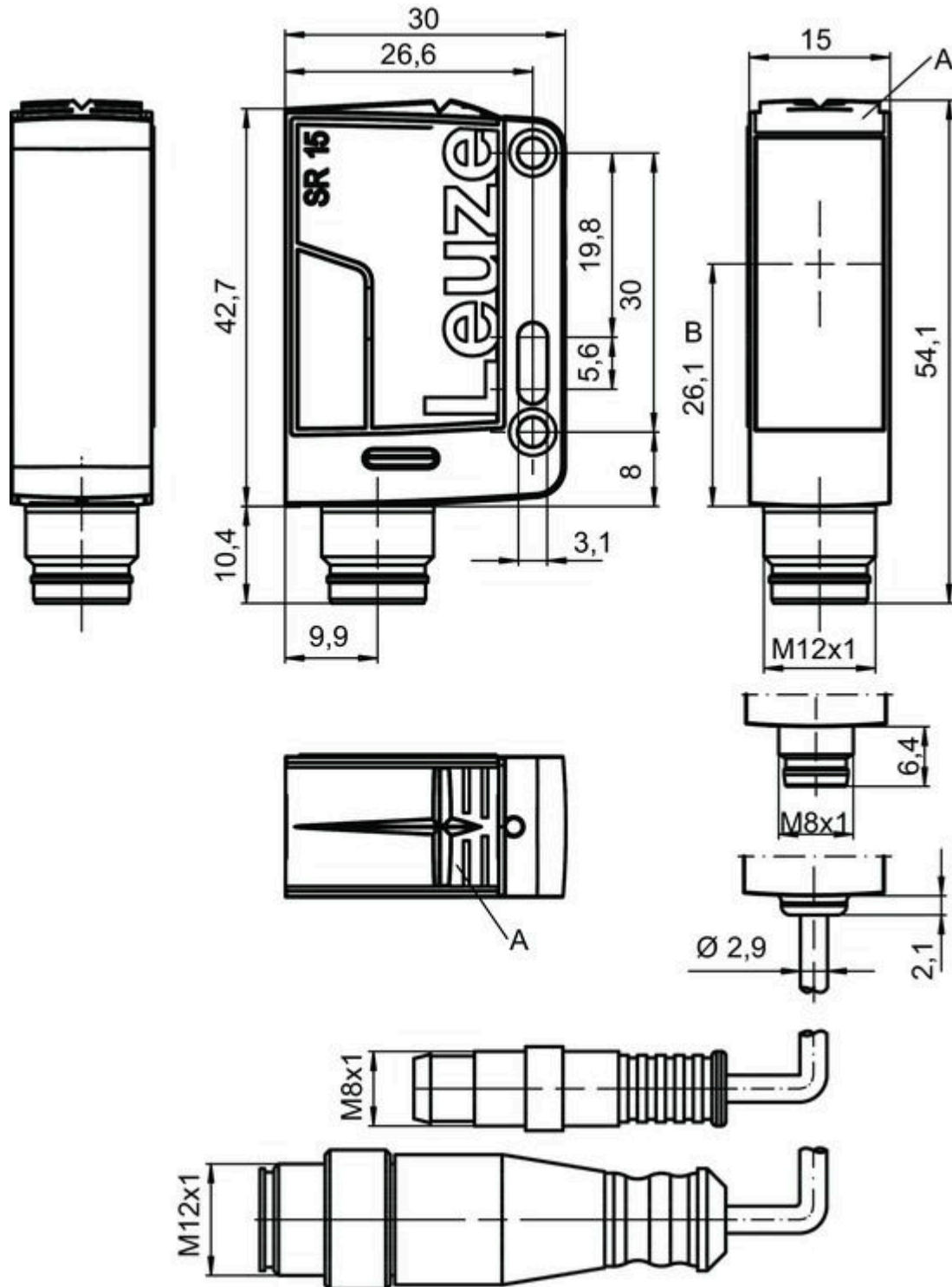
Degree of protection	IP 67
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

**Classification**

Customs tariff number	85365019
eCl@ss 8.0	27270901
eCl@ss 9.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716

## Dimensioned drawings

All dimensions in millimeters



A Yellow LED  
B Optical axis

## Electrical connection

Connection 1	
Type of connection	Cable

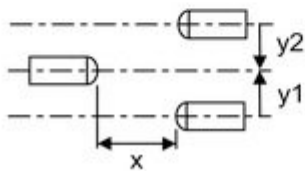
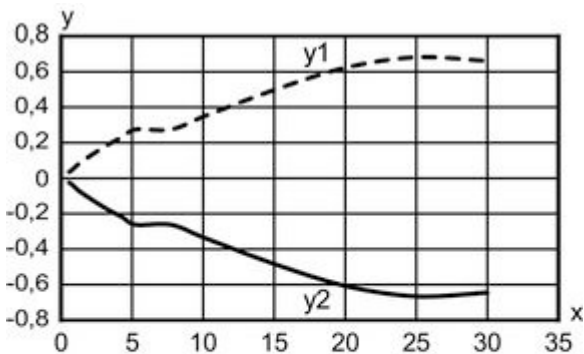
Part no.: 50138591 – LE15/2X – Throughbeam photoelectric sensor receiver

Connection 1	
Function	Signal OUT Voltage supply
Cable length	2,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm <sup>2</sup>

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

### Diagrams

Typ. response behavior




x Distance [m]  
y Misalignment [m]

### Operation and display

LEDs

LED	Display	Meaning
1	Yellow, continuous light	Object detected

## Suitable transmitters

	Part no.	Designation	Article	Description
	50138586	LS15/XX	Throughbeam photoelectric sensor transmitter	Operating range limit: 0 ... 30 m Light source: LED, Red Supply voltage: DC Connection: Cable, 2,000 mm, 4 -wire

## Part number code

Part designation: **AAA15d.EE/ ff-HH**

AAA15	<b>Operating principle / construction:</b> HT15: diffuse reflection sensor with background suppression PRK15: retro-reflective photoelectric sensor with polarization filter LS15: throughbeam photoelectric sensor transmitter LE15: throughbeam photoelectric sensor receiver
d	<b>Light type:</b> n/a: red light I: infrared light
EE	<b>Equipment:</b> 1: adjustable range D: detection of stretch-wrapped objects
ff	<b>Switching output / function / OUT1OUT2 (OUT1 = pin 4, OUT2 = pin 2):</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 X: pin not used
HH	<b>Electrical connection:</b> n/a: cable, standard length 2000 mm, 4-wire M8: M8 connector, 4-pin (plug) 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 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:



- Only for use in "class 2" circuits
- 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)

## Part no.: 50138591 – LE15/2X – Throughbeam photoelectric sensor receiver






- 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
	50124651	BT 205M-10SET	Mounting device set	Contains: 10x 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
	50040269	BT 25	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
	50117830	BTP 200M-D10	Mounting system	Design of mounting device: Protection hood Fastening, 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 Fastening, 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 Fastening, at system: For 14 mm rod Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50117256	BTU 200M-D10	Mounting system	Contains: 2x M3 x 18 screw, 2x position washers Design of mounting device: Mounting system Fastening, 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 Fastening, 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

Part no.: 50138591 – LE15/2X – Throughbeam photoelectric sensor receiver

	Part no.	Designation	Article	Description
	50117254	BTU 200M-D14	Mounting system	Contains: 2x M3 x 18 screw, 2x position washers Design of mounting device: Mounting system Fastening, 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
	50122797	BTU 346M-D12	Mounting system	Contains: 2x M4 x 25 screw, 2x position washers Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type Type of mounting device: Turning, 360°, Clampable, Adjustable Material: Metal