



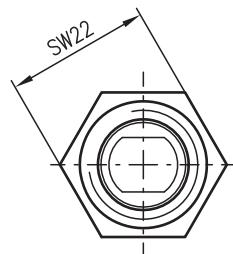
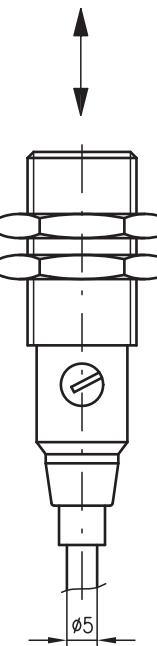
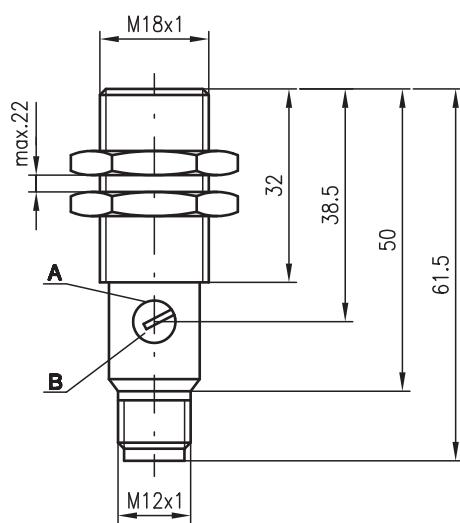
0 ... 18m  
0 ... 120m



- Throughbeam photoelectric sensors with long operating range in red laser light and straight optics
- Sturdy cylindrical stainless steel housing M18x1, degree of protection IP 67 for industrial application
- Fixed beam geometry, convergent
- High switching frequency
- Activation input for testing and interlinking of the sensor
- Complementary switching outputs for light/dark switching or as a control function
- Very short construction for use in limited spaces

## Dimensioned drawing

LSL 318M/...



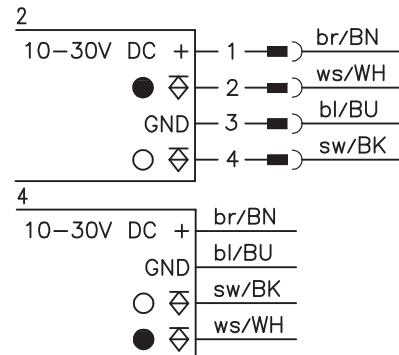
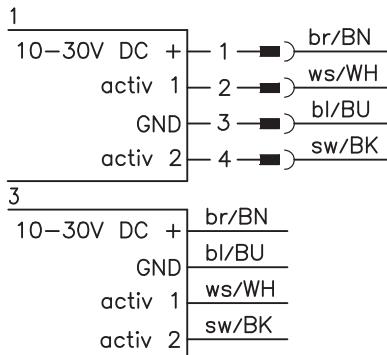
**A** Indicator diode  
**B** Sensitivity adjustment

## Accessories:

(available separately)

- Mounting systems (BT 318, BT 318-ARH)
- M12 connectors (KD ...)
- Ready-made cables (K-D ...)
- Reflection-independent distance information

## Electrical connection



## Technical data

### Optical data

Typ. operating range limit 1)	0 ... 18m, 0 ... 120m
Operating range 2)	0 ... 15m, 0 ... 100m
Light spot diameter	See diagrams
Light source	Laser
Laser class	1 in acc. with IEC 60825-1:2014 / EN 60825-1:2014+A11:2021
Wavelength	650nm (visible red light)
Impulse duration	2µs
Max. power	0.3mW

### Time behavior

Switching frequency	5000Hz
Response time	0.1ms
Readiness delay	≤ 30ms

### Electrical data

Operating voltage $U_B$ 3)	10 ... 30VDC
Residual ripple	≤ 10% of $U_B$
Open-circuit current	≤ 30mA
Switching output	2 transistor outputs, antivalent
Function	Light/dark switching
Signal voltage high/low	≥ $(U_B - 1.6V)/1.6V$
Output current	Max. 100mA
Sensitivity	Adjustable (transmitter)

### Indicators

Red LED	Light path free
Red LED, flashing	Light path free, no function reserve

### Mechanical data

Housing	Stainless steel
Optics cover	Polyamide 12
Weight	90g (cable), 20g (M12)
Connection type	M12 connector, 4-pin
	Cable 2m, 4x0.25mm <sup>2</sup>

### Environmental data

Ambient temp. (operation/storage)	-25°C ... +60°C/-40°C ... +70°C
Protective circuit <sup>4)</sup>	1, 2, 3, 4
VDE protection class 5)	II, all-insulated
Degree of protection	IP 67
Standards applied	IEC 60947-5-2, UL 508
Certifications	UL 508, C22.2 No.14-13 3) 6)

### Additional functions

Activation input active 1	≥ 8V or not connected/≤ 1.5V
Transmitter active/not active	
Activation input active 2	≤ 1.5V or not connected/≥ 8V
Transmitter active/not active	

- 1) Typ. operating range limit: max. attainable range without function reserve
- 2) Operating range: recommended range with function reserve
- 3) For UL applications: for use in "class 2" circuits according to NEC only
- 4) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs, 4=interference blanking
- 5) Rating voltage 250VAC
- 6) 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)

## Order guide

### Selection table

Equipment	Order code			
	LSL 318MP-S12 Part no. 500 83172 (Tr) Part no. 500 83176 (Re)	LSL 318MP-B5-S12 Part no. 500 83172 (Tr) Part no. 500 83180 (Re)	LSL 318MP Part no. 500 83171 (Se) Part no. 500 83175 (Re)	LSL 318MP-B5 Part no. 500 83171 (Se) Part no. 500 83179 (Re)
Housing	●	●	●	●
Connection	●	●		
	Cable		●	●
Switching output	●	●	●	●
	NPN			
Operating range	15m	●		●
	100m	●	●	
Connection diagram	Transmitter	1	1	3
	Receiver	2	2	4

## Tables

### LSL 318...

0	100	120
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### LSL 318...-B5...

0	15	18
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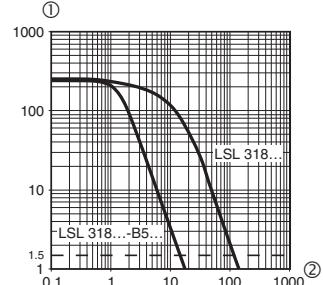
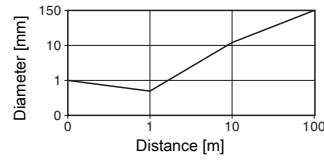
Operating range [m]  
Typ. operating range limit [m]

Versions LSL 318...-B5... : with Ø 1.0mm integrated optical pin diaphragm for the detection of small parts or for precise positioning tasks.

## Diagrams

### LSSL 318...

Typ. light spot



## Notes

### 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.

## Laser safety notices

### ATTENTION, LASER RADIATION – CLASS 1 LASER PRODUCT



The device satisfies the requirements of IEC 60825-1:2014 / EN 60825-1:2014+A11:2021 safety regulations for a product of **laser class 1** and complies with 21 CFR 1040.10 except for conformance with IEC 60825-1 Ed. 3., as described in "Laser Notice No. 56", dated May 8, 2019.

- Observe the applicable statutory and local laser protection regulations.
- The device must not be tampered with and must not be changed in any way.

There are no user-serviceable parts inside the device.

**CAUTION!** Opening the device may result in hazardous radiation exposure!

Repairs must only be performed by Leuze electronic GmbH + Co. KG.