

**LS 318 W**

**Throughbeam photoelectric sensors**

Part No. 501 08663

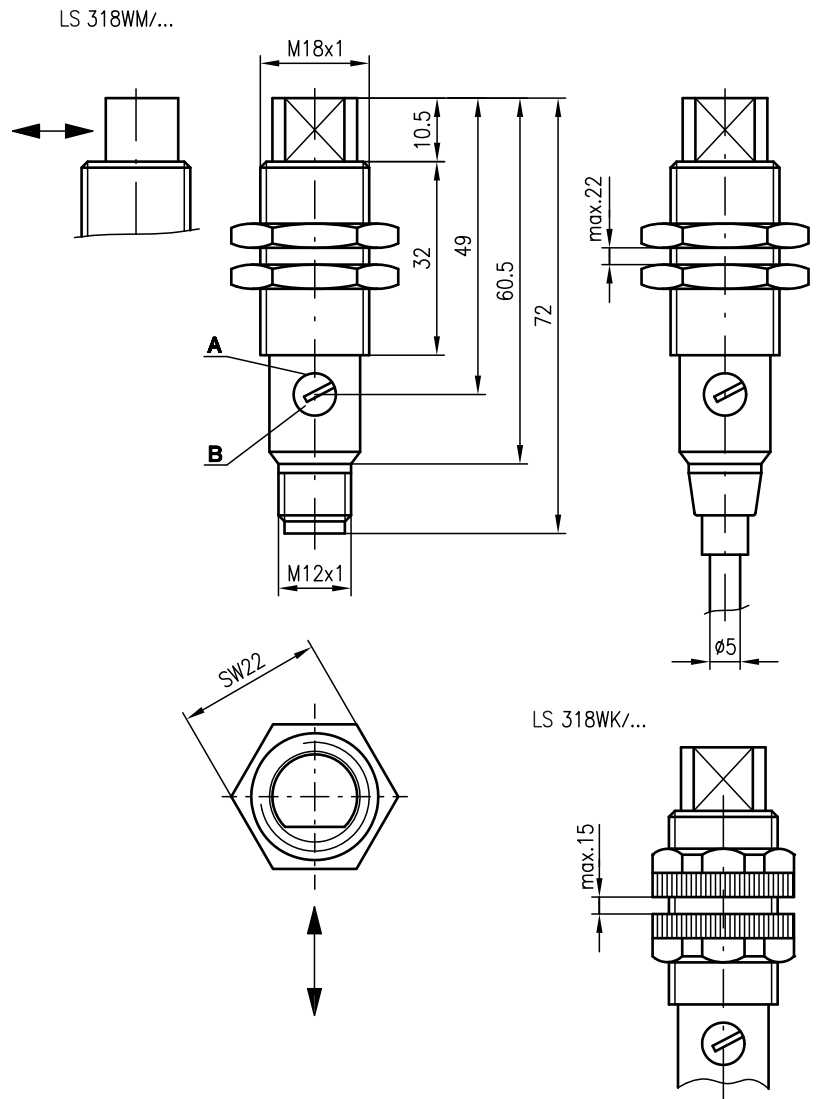


**0 ... 13m**



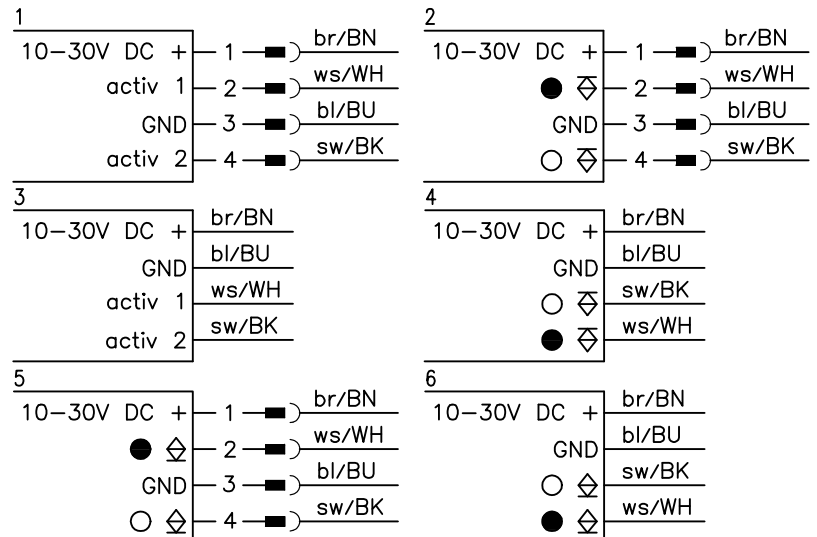
- Throughbeam photoelectric sensors with long operating range in infrared light and angle optics
- Robust cylindrical stainless steel or plastic housing M18x1, protection class IP 67 for industrial application
- Activation input for testing and interlinking
- Complementary switching outputs for light/dark switching or as a control function
- Very short construction for application in limited spaces

**Dimensioned drawing**



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

**Electrical connection**



**Accessories:**

(available separately)

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

We reserve the right to make changes • 318\_a02gb.fm



## Specifications

### Optical data

Typ. operating range limit <sup>1)</sup>	0 ... 13m
Operating range <sup>2)</sup>	0 ... 10m
Light source	LED (modulated light)
Wavelength	880nm

### Timing

Switching frequency	1000Hz
Response time	0.5ms
Delay before start-up	≤ 30ms

### Electrical data

Operating voltage $U_B$	10 ... 30VDC
Residual ripple	≤ 10% of $U_B$
Bias current	≤ 25mA
Switching output	2 transistor outputs, complementary
Function characteristics	light/dark switching
Signal voltage high/low	≥ ( $U_B - 1.6V$ ) / ≤ 1.6V
Output current	max. 100mA
Sensitivity	adjustable

### Indicators

LED red	light path free
LED red flashing	light path free, no performance reserve

### Mechanical data

Housing	polyamide 12 or 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 ... +65°C / -40°C ... +70°C
Protective circuit <sup>3)</sup>	1, 2, 3, 4
VDE safety class <sup>4)</sup>	II, all-insulated
Protection class	IP 67
LED class	1 (acc. to EN 60825-1)
Standards applied	IEC 60947-5-2

### Options

<b>Activation input</b> activ 1	
Transmitter active/not active	≥ 8V or not connected / ≤ 1.5V
<b>Activation input</b> activ 2	
Transmitter active/not active	≤ 1.5V or not connected / ≥ 8V

- 1) Typ. operating range limit: max. attainable range without performance reserve  
 2) Operating range: recommended range with performance reserve  
 3) 1=transient protection, 2=polarity reversal protection, 3=short circuit protection for all outputs, 4=interference blanking  
 4) Rating voltage 250VAC

## Order guide

Selection table		Order code →					
Equipment ↓		LS 318WK/P-S12 Part No. 500 82153 (Tr) Part No. 500 82157 (Re)	LS 318WM/P-S12 Part No. 500 82154 (Tr) Part No. 500 82158 (Re)	LS 318WM/P Part No. 500 82152 (Tr) Part No. 500 82156 (Re)	LS 318WK/N-S12 Part No. 500 82153 (Tr) Part No. 500 83232 (Re)	LS 318WM/N Part No. 500 82152 (Tr) Part No. 500 83246 (Re)	
Housing	plastic	●			●		
	stainless steel		●	●		●	
Connection	M12 connector	●	●		●		
	cable			●		●	
Switching output	PNP	●	●	●			
	NPN				●	●	
Connection diagram	transmitter	1	1	3	1	3	
	receiver	2	2	4	5	6	

## Tables

0	10	13
---	----	----

<input type="checkbox"/>	Operating range [m]
<input type="checkbox"/>	Typ. operating range limit [m]

## Diagrams

## Remarks

**Approved purpose:**  
 The throughbeam photoelectric sensors are optical electronic sensors for optical, contactless detection of objects.