Throughbeam photoelectric sensors





0 ... 15m 0 ... 8m (with 90° angular optics)





- Throughbeam photoelectric sensor with clearly visible red light and high performance reserve
- Axial and 90° light beam gate for flexible integration
- Fast alignment through brightVision®
- Simple fine adjustment via omni-mount
- Sturdy plastic housing with stainless steel threaded sleeve with cylindrical M18x1 design
- Deactivation output for testing and interlinking of the sensor
- Complementary outputs for light/dark switching











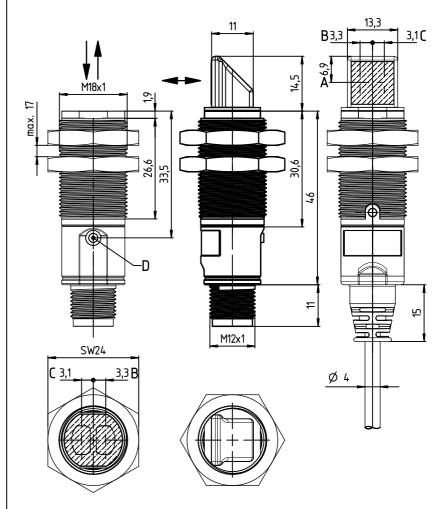


Accessories:

(available separately)

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

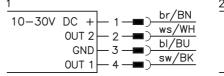
Dimensioned drawing



- A Vertical position of optical axes
- **B** Optical axis (transmitter LS328...)
- C Optical axis (receiver LE328...)
- D Indicator diode

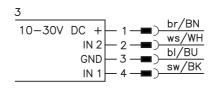
Electrical connection

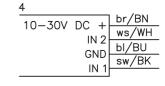
Receiver



2		
10-30V	DC 1	br/BN
10-300	OUT 2	ws/WH
		bI/BU
	GND	sw/BK
	OUT 1	SW/ DN
	0011	

Transmitter





Specifications

Optical data

Typ. operating range limit 1) Operating range 2 Light source Wavelength

Timing

Switching frequency Response time Delay before start-up

Electrical data

Operating voltage U_B 3) Residual ripple Open-circuit current Switching output

Switching input.../9D...

Signal voltage high/low Output current

Indicators

Green LED Yellow LED

Yellow LED, flashing

Mechanical data

Housing Optics cover Weight

Connection type

Environmental data

Ambient temp. (operation/storage) Protective circuit 5) VDE safety class Protection class Light source

Standards applied

Certifications

Typ. operating range limit: max. attainable range without performance reserve

2) Operating range: recommended range with performance reserve

For UL applications: for use in class 2 circuits according to NEC only Sum of the output currents for both outputs, 50mA when ambient temperatures > 40°C

2=polarity reversal protection, 3=short circuit protection for all outputs

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)

Tables

Axial optics:

axial optics: 0 ...15 m 90° optics0 ... 8 m axial optics: 0 ...10 m 90° optics0 ... 5.5 m LED (modulated light)

pin 2: PNP dark switching, pin 4: PNP light switching 2 NPN transistor outputs

pin 2: NPN dark switching, pin 4: NPN light switching 2 deactivation inputs

pin 2: transmitter active when not connected or with pin 4: transmitter active when not connected or with LOW signal

light path free, no performance reserve

plastic with stainless steel threaded sleeve

620nm (visible red light)

2 PNP transistor outputs

500 Hz 1ms ≤ 300ms

10 ... 30VDC ≤ 15% of U_B

≥ (U_B-2V)/≤ 2V max. 100 mA ⁴⁾

light path free

plastic 30g with M12 connector

80g with 2m cable

M12 connector, 4-pin

cable 2m, 4x0.20 mm²

-40°C ... +60°C/-40°C ... +70°C

UL 508, C22.2 No.14-13 ^{3) 6)}

exempt group (in acc. with EN 62471) IEC 60947-5-2

ready

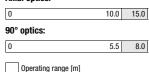
2, 3 III

IP 67

≤ 15 mA

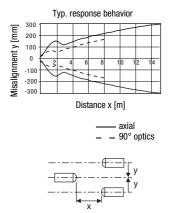
.../4P...

.../2N...



Typ. operating range limit [m]

Diagrams



Remarks

Operate in accordance with 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 accor-
- dance with the intended use.

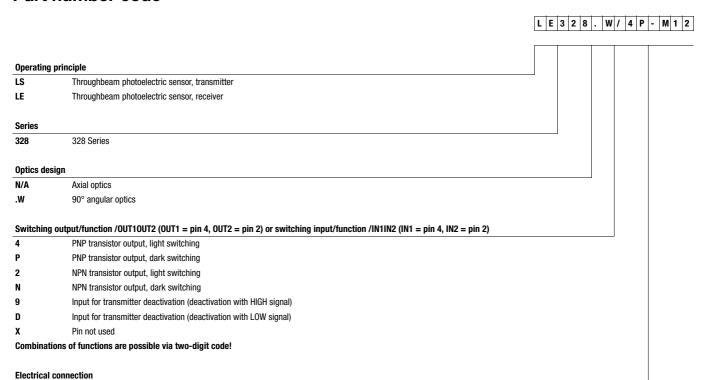
Throughbeam photoelectric sensors

Order guide

The sensors listed here are preferred types; current information at www.leuze.com.

			Designation	Part no.	
Sensors with axial optics					
Transmitter	With M12 connector	2 deactivation inputs (pin $4 = IN1$, pin $2 = IN2$)	LS328/9D-M12	50122702	
	With cable, 2m	2 deactivation inputs (pin $4 = IN1$, pin $2 = IN2$)	LS328/9D	50122703	
Receiver	With M12 connector	Pin 4: PNP light switching, pin 2: PNP dark switching	LE328/4P-M12	50122709	
		Pin 4: NPN light switching, pin 2: NPN dark switching	LE328/2N-M12	50122711	
		Pin 4: PNP light switching, pin 2: PNP dark switching	LE328/4P	50122710	
	With cable, 2m	Pin 4: NPN light switching, pin 2: NPN dark switching	LE328/2N	50122712	
Sensors with 90° angular optics					
Transmitter	With M12 connector	2 deactivation inputs (pin $4 = IN1$, pin $2 = IN2$)	LS328.W/9D-M12	50122700	
	With cable, 2m	2 deactivation inputs (pin $4 = IN1$, pin $2 = IN2$)	LS328.W/9D	50122701	
Receiver	With M12 connector	Pin 4: PNP light switching, pin 2: PNP dark switching	LE328.W/4P-M12	50122704	
		Pin 4: NPN light switching, pin 2: NPN dark switching	LE328.W/2N-M12	50122706	
	Well and a con-	Pin 4: PNP light switching, pin 2: PNP dark switching	LE328.W/4P	50122705	
	With cable, 2m	Pin 4: NPN light switching, pin 2: NPN dark switching	LE328.W/2N	50122707	
Accessories for optimum fastening					
	Mounting system omni-mount		BT318B-0M	50121904	
	Mounting bracket for standard mounting		BT D18M.5	50113548	
	Mounting bracket for <i>omni-mount</i>		BT D21M	50117257	

Part number code



N/A Cable, standard length 2000 mm
-M12 M12 connector

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L 328... - 04 2015/09