



the sensor people





Part no.: 50122710 LE328/4P Throughbeam photoelectric sensor







Figure can vary

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## **Technical data**

Basic data		
Series	328	
Operating principle	Throughbeam principle	
Device type	Receiver	
Optical data		
Operating range	Guaranteed operating range	
Operating range	0 10 m	
Operating range limit	Typical operating range	
Operating range limit	0 15 m	
Electrical data		
Protective circuit	Polarity reversal protection Short circuit protected	
Performance data		
Supply voltage	10 30 V, DC, Incl. residual ripple	
Residual ripple	0 15 %, From U <sub>B</sub>	
Open-circuit current	0 15 mA	
Outputs		
Number of digital switching outputs	2 Piece(s)	
Switching outputs		
Voltage type	DC	
Switching current, max.	100 mA	
Switching voltage	Low: ≤2V High: ≥(U <sub>B</sub> -2V)	
Switching output 1		
Switching element	Transistor, PNP	
Switching principle	Light switching	
Switching output 2		
Switching element	Transistor, PNP	
Switching principle	Dark switching	
Timing		
Switching frequency	500 Hz	
Response time	1 ms	
Readiness delay	300 ms	
Connection		
Connection 1		
Type of connection	Cable	
Function	Voltage supply Signal OUT	
Cable length	2,000 mm	
Sheathing material	PUR	
Cable color	Black	
Number of conductors	4 -wire	

0.2 mm<sup>2</sup>

Wire cross section



Thread size M18 x 1 mm		
Dimension (Ø x L)	18 mm x 46 mm	
Housing material	Plastic Stainless steel, V2A, ABS	
Lens cover material	Plastic	
Net weight	70 g	
Housing color	Silver Black	

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	
eCl@ss 8.0	27270901
eCl@ss 9.0	27270901
ETIM 5.0	EC002716

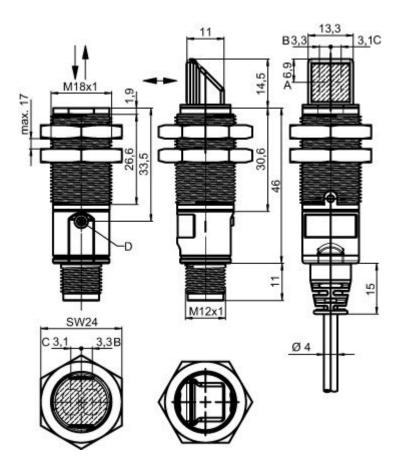
## Suitable transmitters

Part no.	Designation	Article	Description
50122703		Throughbeam photoelectric sensor transmitter	Operating range limit: 0 15 m Light source: LED, Red Supply voltage: DC Connection: Cable, 2,000 mm, 4 -wire Special design: Deactivation input

## **Dimensioned drawings**

All dimensions in millimeters





- Vertical position of the optical axis Optical axis (transmitter) Optical axis (receiver)

- A B C D Indicator diode

### **Electrical connection**

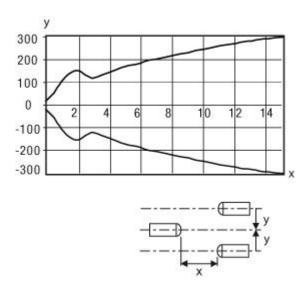
Connection 1	
Type of connection	Cable
Function	Voltage supply Signal OUT
Cable length	2,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm²

Conductor color	Conductor assignment
Brown	V+
White	OUT 2
Blue	GND
Black	OUT 1



## **Diagrams**

## Typ. response behavior



- Distance [m] Misalignment [mm]

## **Operation and display**

#### **LEDs**

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Yellow, continuous light	Light path free
	Yellow, flashing	No function reserve

### Part number code

Part designation: XXX328BY-AAAF.BB/CC-DDD

XXX328	Operating principle: PRK: retro-reflective photoelectric sensor with polarization filter ET: energetic diffuse reflection sensor FT: diffuse reflection sensor with fading LE: throughbeam photoelectric sensor receiver LS: throughbeam photoelectric sensor transmitter
Y	Light type: n/a: red light I: infrared light
AAAF	Pre-set range (optional): n/a: operating range acc. to data sheet XXXX: pre-set range [mm]
ВВ	Equipment: n/a: axial optics W: 90° angular optics 3: teach-in via button



СС	Switching output / function (OUT1 = pin 4, OUT2 = pin 2):: 4: PNP transistor output, light switching P: PNP transistor output, dark switching 2: NPN transistor output, light switching N: NPN transistor output, dark switching 9: input for transmitter deactivation (deactivation with HIGH signal) D: input for transmitter deactivation (deactivation with LOW signal) X: pin not used
DDD	Electrical connection: n/a: cable, PVC, standard length 2000 mm, 4-wire M12: M12 connector, 4-pin (plug)

### **Accessories**

## Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
0	50113548	BT D18M.5	Mounting bracket	Diameter, inner: 18 mm 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: Stainless steel
0	50117257	BT D21M	Mounting bracket	Diameter, inner: 21 mm Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Adjustable Material: Metal

# Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
<b>Of</b>	50117490	BTU D18M-D12	Mounting system	Design of mounting device: Mounting system Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

# Mounting technology - Other

	Part no.	Designation	Article	Description
OF FILE	50132729	AC D18M-CS	Clamp	Contains: 2x M24 mounting nut Diameter, inner: 18 mm Design of mounting device: Mounting clamp Fastening, at system: Screw type, Through-hole mounting Mounting bracket, at device: insertable, Clampable with limit stop Type of mounting device: Clampable, With limit stop Material: Metal
	50083189	BT 318-ARH	Adjustment fastening part	Design of mounting device: Mounting plate Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Swiveling, Adjustable Material: Metal

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	Part no.	Designation	Article	Description
	50117258	BT 318P-LS	Fastening	Contains: 10x Design of mounting device: Mounting clamp Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Rigid Material: Plastic
00	50126631 **	BT 328M	Fastening	Contains: 2x M18 mounting nut Design of mounting device: Mounting clamp Fastening, at system: For 18 mm rod, Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Turning, 360° Material: Stainless steel
08	50121904	BT318B-OM	Fastening	Design of mounting device: Mounting clamp Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Swiveling, Adjustable, Turning Material: Plastic

<sup>\*\*</sup> Included in delivery contents

#### **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:

- 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)
- $\bullet$  Sum of the output currents for both outputs, 50 mA for ambient temperatures > 40  $^{\circ}\text{C}$