

Technical data sheet Throughbeam photoelectric sensor Part no.: 50122705 LE328.W/4P



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Technical data

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Basic data

Basic data			
Series	328		
Operating principle	Throughbeam principle		
Device type	Receiver		
Special design			
Special design	90° - angular optics		
Optical data			
Operating range	Guaranteed operating range		
Operating range	0 5.5 m		
Operating range limit	Typical operating range		
Operating range limit	0 8 m		
Electrical data			
Protective circuit	Polarity reversal protection		
	Short circuit protected		
Performance data			
Supply voltage U _B	10 30 V, DC, Incl. residual ripple		
Residual ripple	0 15 %, From U _B		
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	high: ≥(U _B -2V)		
	Low: ≤2V		
Switching sutput 4			
Switching output 1 Switching element	Transistor, PNP		
Switching principle	Light switching		
Switching principle	Light Switching		
Switching output 2			
Switching element	Transistor, PNP		
Switching principle	Dark switching		
Timing			
Switching frequency	500 Hz		
Response time	1 ms		

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Respons	se tim	e	
Readine	ss de	lay	

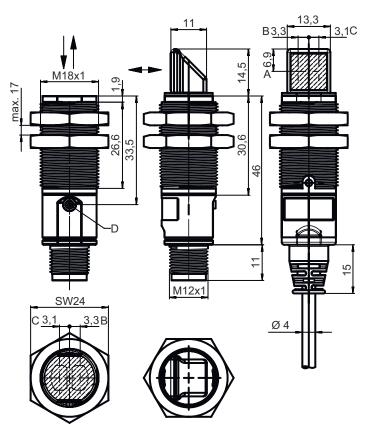
300 ms

Connection 1	
Function	Signal OUT
	Voltage supply
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm ²
Mechanical data	
Thread size	M18 x 1 mm
Dimension (Ø x L)	18 mm x 61 mm
Housing material	Plastic
	Stainless steel, V2A, ABS
Lens cover material	Plastic
Net weight	70 g
Housing color	Black
	Silver
Operation and display	
Operation and display Type of display	LED
	LED 1 Piece(s)
Type of display	
Type of display Number of LEDs	
Type of display Number of LEDs Environmental data	1 Piece(s)
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage	1 Piece(s) -40 60 °C
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Certifications	1 Piece(s) -40 60 °C -40 70 °C
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Certifications Degree of protection	1 Piece(s) -40 60 °C -40 70 °C IP 67
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Certifications Degree of protection Protection class	1 Piece(s) -40 60 °C -40 70 °C IP 67 III
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Certifications Degree of protection Protection class Certifications	1 Piece(s) -40 60 °C -40 70 °C IP 67 III c UL US
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Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification	1 Piece(s) -40 60 °C -40 70 °C IP 67 III c UL US IEC 60947-5-2
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number	1 Piece(s) -40 60 °C -40 70 °C IP 67 III c UL US IEC 60947-5-2 85365019
Type of display Number of LEDs Environmental data Ambient temperature, operation Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number eCl@ss 8.0	1 Piece(s) -40 60 °C -40 70 °C IP 67 III c UL US IEC 60947-5-2 85365019 27270901

Dimensioned drawings



All dimensions in millimeters



- A Vertical position of the optical axis
- B Optical axis (transmitter)
- C Optical axis (receiver)
- D Indicator diode

Electrical connection

Connection 1

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

Conductor color

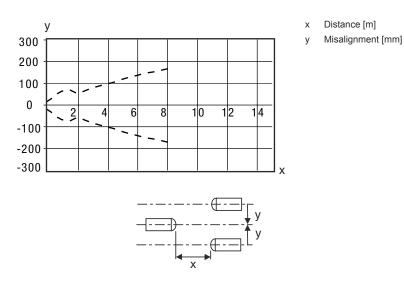
Conductor assignment

Brown	V+
White	OUT 2
Blue	GND
Black	OUT 1

Diagrams

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Typ. response behavior



Operation and display

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

Suitable receivers

	Part no.	Designation	Article	Description
Ţ	50122701	LS328.W/9D	Throughbeam photoelectric sensor transmitter	Special design: 90° - angular optics, Deactivation input Operating range limit: 0 8 m Light source: LED, Red Supply voltage: DC Deactivation inputs: 2 Piece(s) Connection: Cable, 2,000 mm, 4 -wire

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	Preset range (optional) n/a: operating range acc. to data sheet xxxF: preset range [mm]
ВВ	Equipment n/a: axial optics W: 90° angular optics 3: teach-in via button

Part number code



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, standard length 2000mm, 4-wire M12: M12 connector, 4-pin (plug)
	Note
0	♣ A list with all available device types can be found on the Leuze website at www.leuze.com.

Notes

Observe intended use!
∜ This product is not a safety sensor and is not intended as personnel protection.
by The product may only be put into operation by competent persons.
∜ Only use the product in accordance with its intended use.

For UL applications:

b 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)

Further information

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

Accessories

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
C	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

Accessories



Mounting technology - Rod mounts

 Part no.	Designation	Article	Description
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
	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
00	50126631 **	BT 328M	Fastening	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

** Included in delivery contents

	Note
6	to A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.