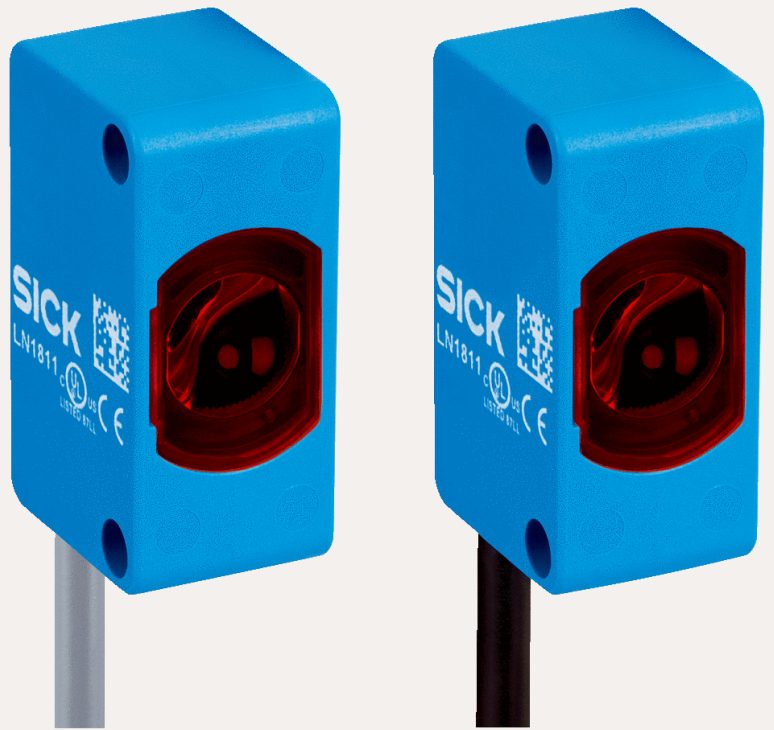




DATA SHEET

ZSE18-7AB1E8

Z18 Simple Sense
Photoelectric sensors

SICK

Sensor Intelligence

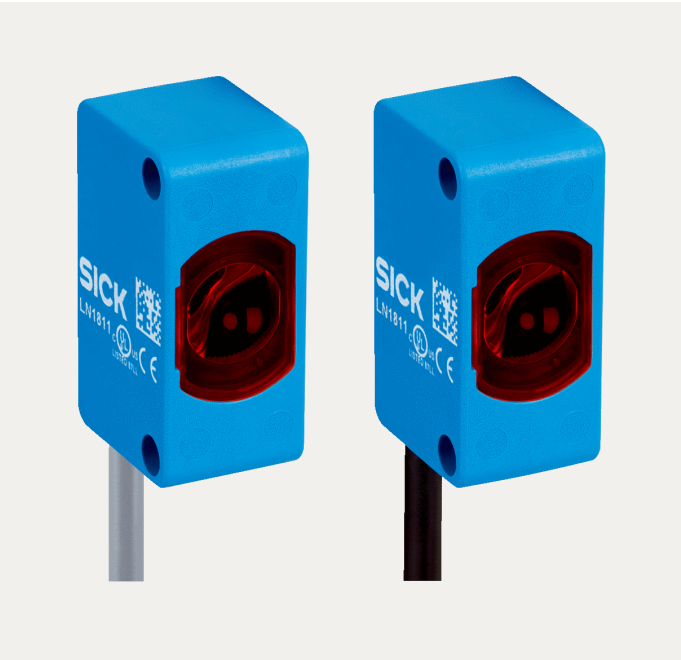


Illustration may differ

PHOTOELECTRIC SENSORS

ZSE18-7AB1E8

ORDERING INFORMATION

Type	part no.
ZSE18-7AB1E8	1102788

Further device versions and accessories at www.sick.com/Z18_Simple_Sense



DETAILED TECHNICAL DATA

FEATURES

Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	13.6 mm x 31 mm x 22.4 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	-
Mounting system type	Side (24.1 ... 25.4 mm)
Housing color	Blue
Sensing range max.	0 m ... 22 m
Sensing range	0 m ... 20 m
Type of light	Visible red light
Light source	LED
Light spot size (distance)	Ø 125 mm (1,000 mm)
Wave length	625 nm

MECHANICS/ELECTRONICS

Supply voltage U _B	10 V DC ... 30 V DC
Ripple	< 10 %
Current consumption	≤ 15 mA ¹⁾
Switching output	Push-pull: PNP/NPN

¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ With light/dark ratio 1:1.

⁴⁾ A = V_B connections reverse-polarity protected.

⁵⁾ B = inputs and output reverse-polarity protected.

⁶⁾ D = outputs overcurrent and short-circuit protected.

Switching mode	Light switching, Dark switching	
Switching output detail		
	Switching output Q1	Push-pull: PNP/NPN, Light switching
	Switching output Q2	Push-pull: PNP/NPN, Dark switching
Output current I_{max}	100 mA	
Response time	$\leq 500 \mu s$ ²⁾	
Switching frequency	1,000 Hz ³⁾	
Connection type	Cable open end, 4-wire, 1,000 mm	
Cable material	Plastic, PVC	
Conductor cross section	0.13 mm ²	
Circuit protection	A ⁴⁾ B ⁵⁾ D ⁶⁾	
Protection class	III	
Weight	9.4 g	
Housing material	Plastic, ABS	
Optics material	Plastic, PMMA	
Enclosure rating	IP67	
Ambient operating temperature	-40 °C ... +55 °C	
Ambient temperature, storage	-40 °C ... +70 °C	
UL File No.	E189383	

¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ With light/dark ratio 1:1.

⁴⁾ A = V_s connections reverse-polarity protected.

⁵⁾ B = inputs and output reverse-polarity protected.

⁶⁾ D = outputs overcurrent and short-circuit protected.

CONNECTION TYPE/PINOUTS

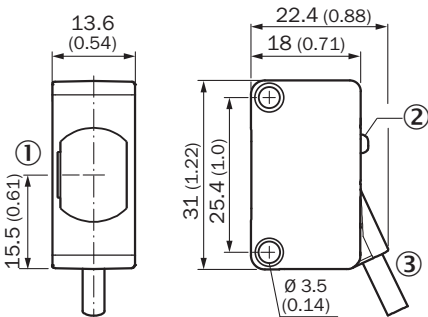
Connection type	Cable open end, 4-wire, 1,000 mm	
Connection type Detail		
	Cable material	Plastic
	Conductor cross section	0.13 mm ²
Pinouts _{Sender}		
	BN	+ (L+)
	WH	Not connected
	BU	- (M)
	BK	Test _{IN}
Pinouts _{Receiver}		
	BN	+ (L+)
	WH	Q ₂
	BU	- (M)
	BK	Q ₁

CERTIFICATES

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓

China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓

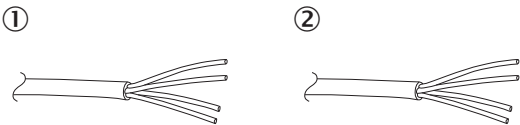
DIMENSIONAL DRAWING



Dimensions in mm (inch)

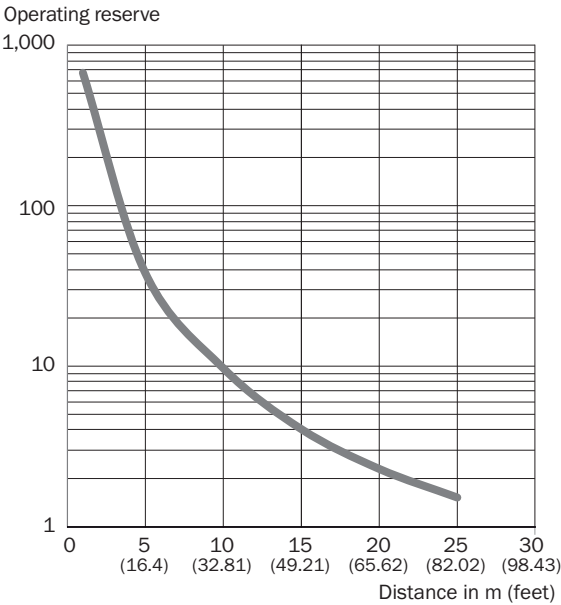
- ① Optical axis
- ② LED status indicator
- ③ Connection

PINOUTS, SEE TABLE TECHNICAL DATA: CONNECTION TYPE/PINOUTS

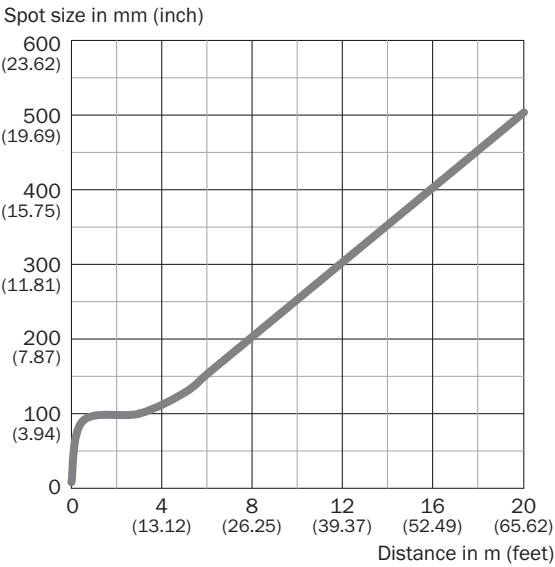


- ① sender
- ② receiver

CHARACTERISTIC CURVE



LIGHT SPOT SIZE



Further information as well as suitable accessories, example applications and downloads such as CAD dimensional models, operating instructions and software can be found at www.sick.com/1102788



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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnerships with our customers are more than just a promise: Together, we optimize productivity, improve quality, protect health and safety, and help build a sustainable future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions

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