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DATA SHEET

ZLD18-4PZ4A8

Z18 Simple Sense
Photoelectric sensors

SICK Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

ZLD18-4PZ4A8

ORDERING INFORMATION

Type	part no.
ZLD18-4PZ4A8	1099295

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

DETAILED TECHNICAL DATA

FEATURES

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	With minimum distance to reflector (dual lens system)
Dimensions (W x H x D)	13.6 mm x 44.2 mm x 33.3 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	M18
Mounting system type	M18, head/M18, base
Housing color	Blue
Sensing range max.	0 m ... 5 m [1]
Sensing range	0 m ... 4.2 m [1]
Type of light	Visible red light
Light source	LED
Light spot size (distance)	Ø 125 mm (1,000 mm)
Wave length	625 nm

[1] Reflector PL80A.

MECHANICS/ELECTRONICS

Supply voltage U_B	10 V DC ... 30 V DC
Ripple	< 10 %

[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.

Current consumption	≤ 15 mA [1]
Switching output	PNP
Switching mode	Light switching
Switching output detail	
Switching output Q1	PNP, Light switching
Switching output Q2	Not connected
Output current $I_{max.}$	100 mA
Response time	≤ 500 µs [2]
Switching frequency	1,000 Hz [3]
Connection type	Male connector M12, 4-pin
Circuit protection	A [4] B [5] D [6]
Protection class	III
Weight	4.54 g
Polarizing filter	✓
Special device	✓
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.

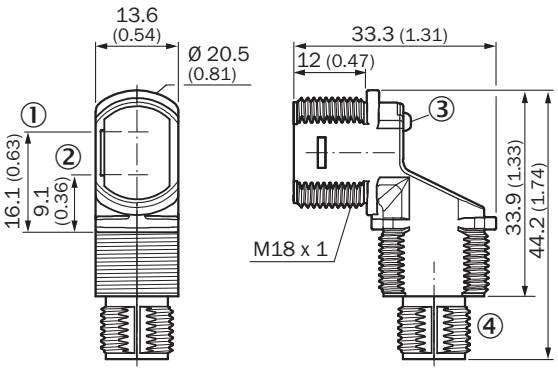
CONNECTION TYPE/PINOUTS

Connection type	
	Male connector M12, 4-pin
Pinouts	
BN 1	+ (L+)
WH 2	Not connected
BU 3	- (M)
BK 4	Q_1

CERTIFICATES

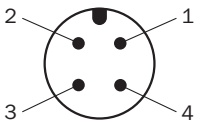
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓

DIMENSIONAL DRAWING



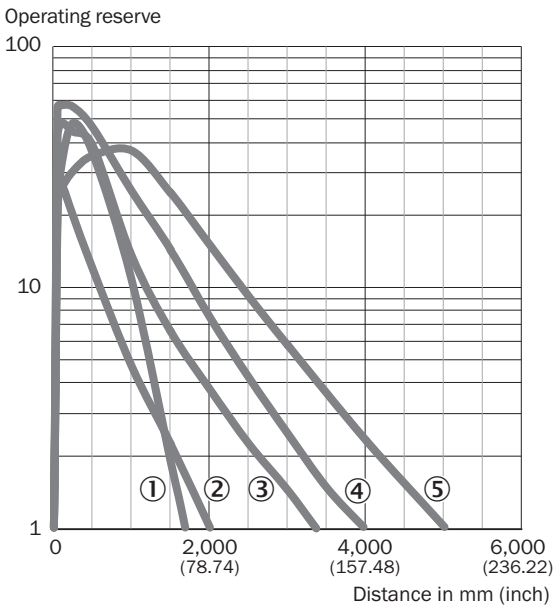
Dimensions in mm (inch)
① optical axis, sender
② optical axis, receiver
③ LED status indicator
④ Connection

PINOUTS, SEE TABLE TECHNICAL DATA: CONNECTION TYPE/PINOUTS



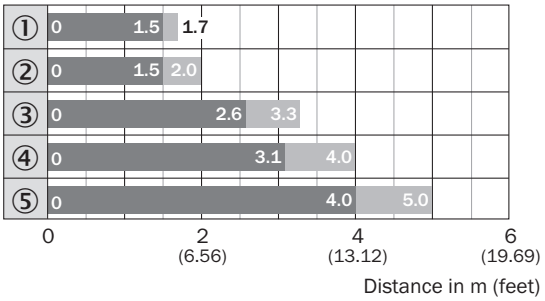
M12 male connector, 4-pin, A-coding

CHARACTERISTIC CURVE



① Reflector PL23 FT
② Reflector PL20A
③ Reflector PL250
④ Reflector PL40A
⑤ Reflector PL80A

SENSING RANGE DIAGRAM



Sensing range Sensing range max.

① Reflector PL23 FT
② Reflector PL20A
③ Reflector PL250
④ Reflector PL40A
⑤ Reflector PL80A

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/1099295

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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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