



DATA SHEET

ZLD18-2KZ3E2

Z18 Simple Sense
Photoelectric sensors

SICK

Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

ZLD18-2KZ3E2

ORDERING INFORMATION

Type	part no.
ZLD18-2KZ3E2	1145797

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 34.8 mm x 21.9 mm
Housing design (light emission)	Hybrid
Mounting system type	M18, head/side (24.1 ... 25.4 mm)
Housing color	Blue
Sensing range max.	0 m ... 7.8 m ¹⁾
Sensing range	0 m ... 6.8 m ¹⁾
Type of light	Visible red light
Light source	PinPoint LED
Light spot size (distance)	Ø 25 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⁾ Open Collector.

³⁾ Signal transit time with resistive load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ A = V₊ connections reverse-polarity protected.

⁶⁾ B = inputs and output reverse-polarity protected.

⁷⁾ D = outputs overcurrent and short-circuit protected.

Current consumption	≤ 15 mA ¹⁾
Switching output	PNP
Switching mode	Dark switching
Switching output detail	Switching output Q1 PNP, Dark switching ²⁾ Switching output Q2 Not connected
Output current I _{max}	100 mA
Response time	≤ 500 μs ³⁾
Switching frequency	1,000 Hz ⁴⁾
Connection type	Cable with M8 male connector, 4-pin, 1 m
Cable material	Plastic, PVC
Conductor cross section	0.13 mm ²
Circuit protection	A ⁵⁾ B ⁶⁾ D ⁷⁾
Protection class	III
Weight	4.54 g
Polarizing filter	✓
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⁾ Open Collector.³⁾ Signal transit time with resistive load.⁴⁾ With light/dark ratio 1:1.⁵⁾ A = V_s connections reverse-polarity protected.⁶⁾ B = inputs and output reverse-polarity protected.⁷⁾ D = outputs overcurrent and short-circuit protected.

CONNECTION TYPE/PINOUTS

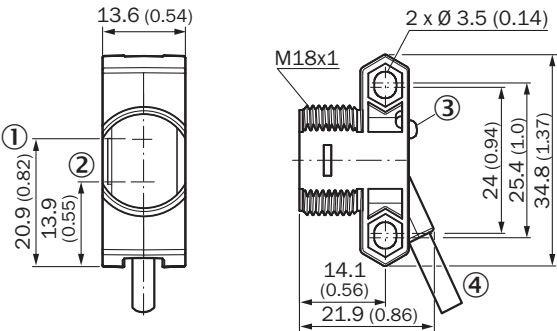
Connection type	Cable with M8 male connector, 4-pin, 1 m
Connection type Detail	Cable material Plastic Conductor cross section 0.13 mm ²
Pinouts	BN 1 + (L+) WH 2 Not connected BU 3 - (M) BK 4 Q _i

CERTIFICATES

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

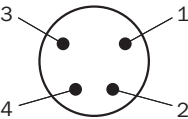
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓

DIMENSIONAL DRAWING



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

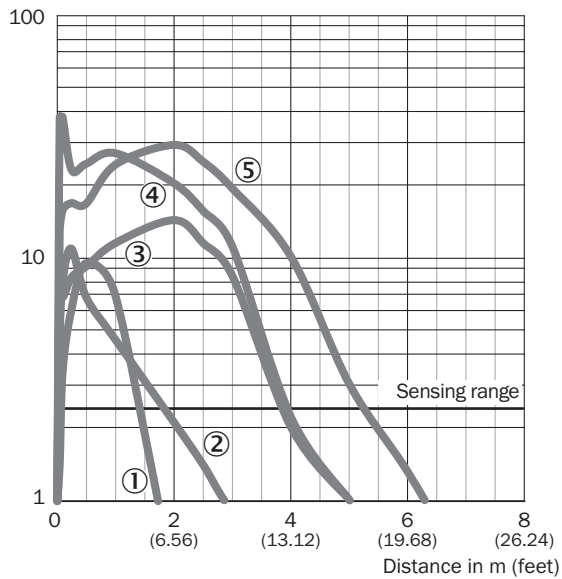
PINOUTS, SEE TABLE TECHNICAL DATA: CONNECTION TYPE/PINOUTS



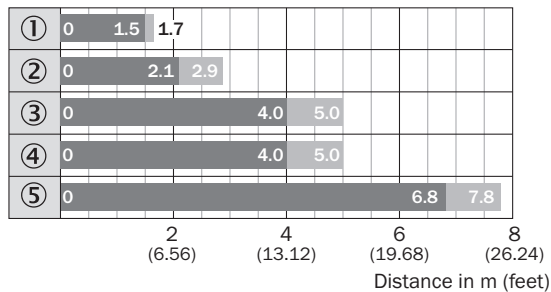
Male connector, M8, 4-pin, uncoded

CHARACTERISTIC CURVE

Function reserve



- ① Reflector PL23 FT
- ② Reflector PL20A
- ③ Reflector P250
- ④ Reflector PL40A
- ⑤ Reflector PL80A

SENSING RANGE DIAGRAM

■ Sensing range ■ Sensing range typ. max.

- ① Reflector PL23 FT
- ② Reflector PL20A
- ③ Reflector P250
- 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/1145797



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SICK AT A GLANCE

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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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