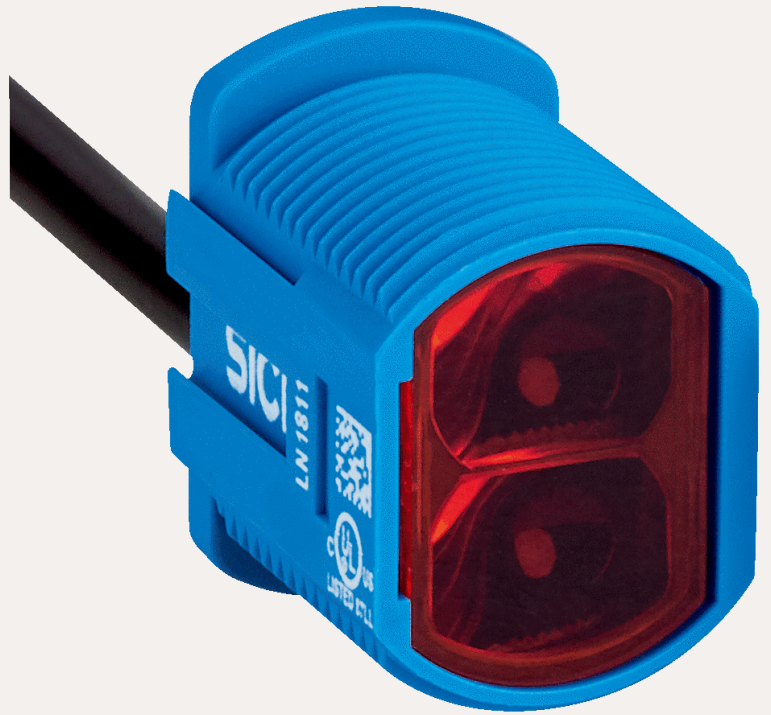


SICK.COM



DATA SHEET

ZLD18-9AZ002S84

Z18 Simple Sense
Photoelectric sensors

SICK Sensor Intelligence



Illustration may differ

PHOTOELECTRIC SENSORS

ZLD18-9AZ002S84

ORDERING INFORMATION

Type	part no.
ZLD18-9AZ002S84	1137039

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)	14.4 mm x 20.5 mm x 23 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	M18
Mounting system type	M18, head/dovetail mounting with base
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
Special features	Cable with plug, Tyco housing: PN 1375820-3, Tyco socket: PN 1375819

¹⁾ Reflector PL80A.

MECHANICS/ELECTRONICS

Supply voltage U _B	10 V DC ... 30 V DC
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¹⁾ Without load.

²⁾ Signal transit time with resistive load.

³⁾ With light/dark ratio 1:1.

⁴⁾ A = V₊ connections reverse-polarity protected.

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

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

Ripple	< 10 %
Current consumption	$\leq 15 \text{ mA}$ ¹⁾
Switching output	Push-pull: PNP/NPN
Switching mode	Light switching, Dark switching
Switching output detail	Switching output Q1 Switching output Q2 Push-pull: PNP/NPN, Light switching Push-pull: PNP/NPN, Dark switching
Output current I_{max}	100 mA
Response time	$\leq 500 \mu\text{s}$ ²⁾
Switching frequency	1,000 Hz ³⁾
Connection type	Cable with plug, Tyco housing: PN 1375820-3, Tyco socket: PN 1375819, 2.16 m
Cable material	Plastic, PVC
Conductor cross section	0.13 mm ²
Circuit protection	A ⁴⁾ B ⁵⁾ D ⁶⁾
Protection class	III
Weight	2.49 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⁾ 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.

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CONNECTION TYPE/PINOUTS

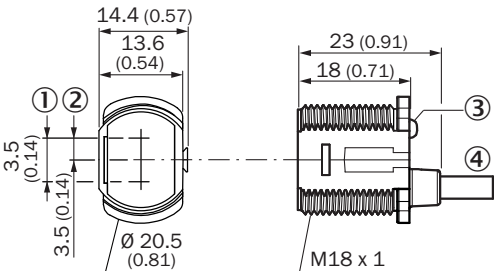
Connection type	Cable with plug, Tyco housing: PN 1375820-3, Tyco socket: PN 1375819, 2.16 m
Connection type Detail	Cable material Conductor cross section Plastic 0.13 mm²
Pinouts	BN + (L+) WH Q₂ BU - (M) BK Q₁

CERTIFICATES

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

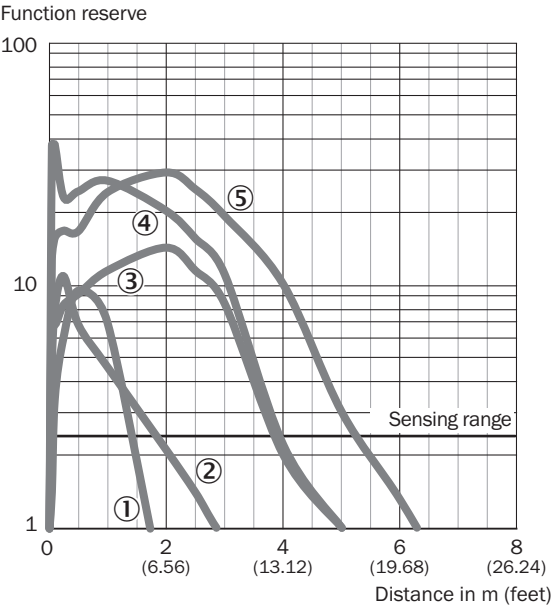
China RoHS	✓
China Compulsory Product Certification (CCC) exempt	✓

DIMENSIONAL DRAWING



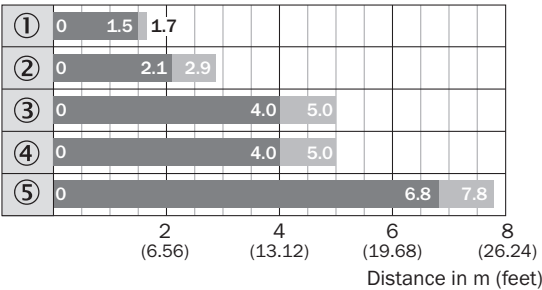
- Dimensions in mm (inch)
- ① optical axis, sender
 - ② optical axis, receiver
 - ③ LED status indicator
 - ④ Connection

CHARACTERISTIC CURVE



- 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/1137039



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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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