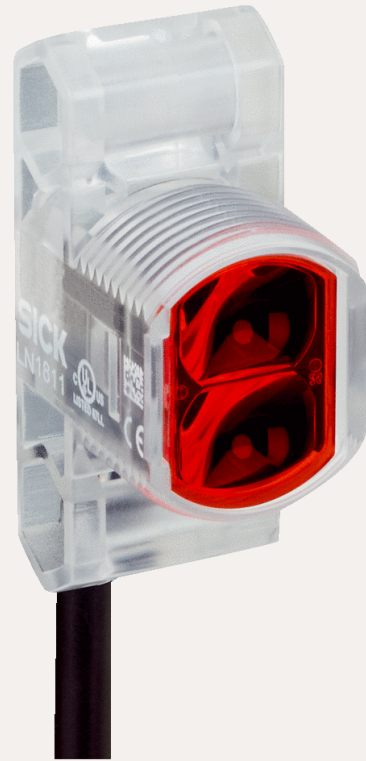


SICK.COM



DATA SHEET

# ZLD18-BPZ302S93

Z18 Simple Sense  
Photoelectric sensors

**SICK** Sensor Intelligence

## PHOTOELECTRIC SENSORS

## ZLD18-BPZ302S93

## ORDERING INFORMATION

Type	part no.
ZLD18-BPZ302S93	1142021

Further device versions and accessories at [www.sick.com/Z18\\_Simple\\_Sense](http://www.sick.com/Z18_Simple_Sense)



Illustration may differ



## 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	Transparent
Sensing range max.	0 m ... 7.8 m <sup>1)</sup>
Sensing range	0 m ... 6.8 m <sup>1)</sup>
Type of light	Visible red light
Light source	PinPoint LED
Light spot size (distance)	Ø 25 mm (1,000 mm)
Wave length	625 nm

<sup>1)</sup> Reflector PL80A.

**MECHANICS/ELECTRONICS**

Supply voltage $U_B$	10 V DC ... 30 V DC
Ripple	< 10 %
Current consumption	$\leq 15 \text{ mA}$ <sup>1)</sup>
Switching output	PNP
Switching mode	Light switching
Switching output detail	Switching output Q1 PNP, Light switching Switching output Q2 Not connected
Output current $I_{\text{max}}$	100 mA
Response time	$\leq 500 \mu\text{s}$ <sup>2)</sup>
Switching frequency	1,000 kHz <sup>3)</sup>
Connection type	Cable with M8 male connector, 4-pin
Cable material	Plastic, PVC
Conductor cross section	0.13 mm <sup>2</sup>
Circuit protection	A <sup>4)</sup> B <sup>5)</sup> D <sup>6)</sup>
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

<sup>1)</sup> Without load.<sup>2)</sup> Signal transit time with resistive load.<sup>3)</sup> With light/dark ratio 1:1.<sup>4)</sup> A =  $V_S$  connections reverse-polarity protected.<sup>5)</sup> B = inputs and output reverse-polarity protected.<sup>6)</sup> D = outputs overcurrent and short-circuit protected.**CONNECTION TYPE/PINOUTS**

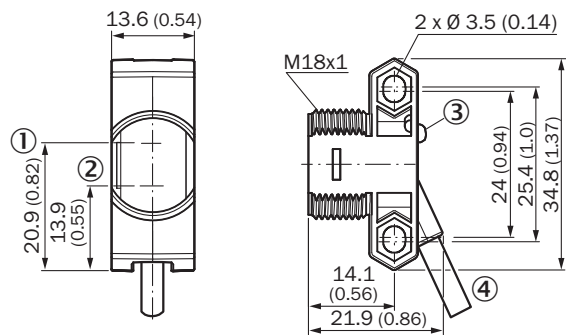
Connection type	Cable with M8 male connector, 4-pin
Connection type Detail	Cable material Plastic Conductor cross section 0.13 mm <sup>2</sup>
Pinouts	BN 1 + (L+) WH 2 Not connected BU 3 - (M) BK 4 $Q_1$

**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	✓

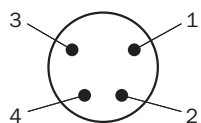
**DIMENSIONAL DRAWING**



Dimensions in mm (inch)

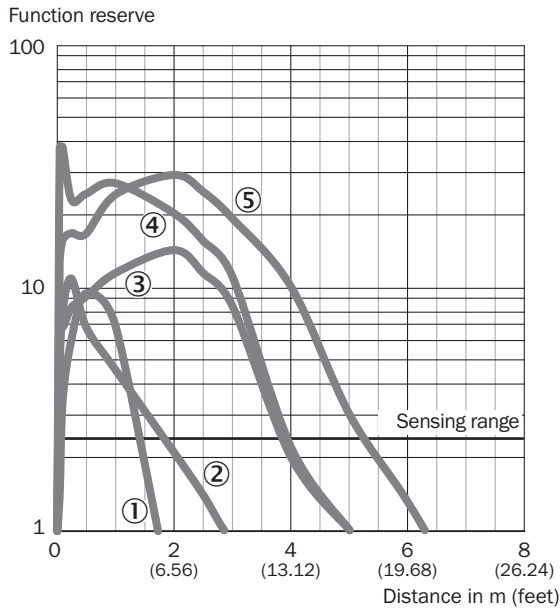
- ① optical axis, sender
- ② optical axis, receiver
- ③ LED status indicator
- ④ Connection

**PINOUTS, SEE TABLE TECHNICAL DATA: CONNECTION TYPE/PINOUTS**



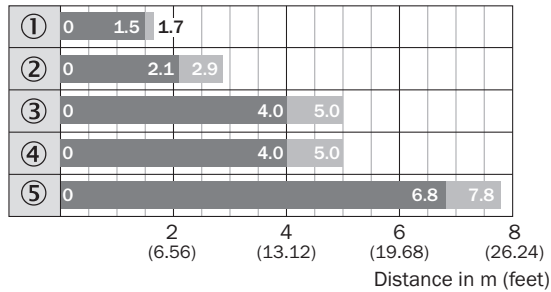
Male connector, M8, 4-pin, uncoded

**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/1142021](http://www.sick.com/1142021)



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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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