



ZLD18-8AB1G8

Z18 Simple Sense

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	part no.
ZLD18-8AB1G8	1095733

Other models and accessories → 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)	23.3 mm x 24 mm x 26 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	-
Mounting system type	24 mm, ball, without alignment aid
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 %
Current consumption	≤ 15 mA ¹⁾
Switching output	Push-pull: PNP/NPN
Switching mode	Light switching, Dark switching

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.

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		≤ 500 μs ²⁾
Switching frequency		1,000 kHz ³⁾
Connection type		Cable open end, 4-wire, 2,000 mm
Cable material		Plastic, PVC
Conductor cross section		0.13 mm ²
Circuit protection		A ⁴⁾ B ⁵⁾ D ⁶⁾
Protection class		III
Weight		4.6 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.

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

Connection type/pinouts

Connection type		Cable open end, 4-wire, 2,000 mm
Connection type Detail		
	Cable material	Plastic
	Conductor cross section	0.13 mm ²
Pinouts		
	BN	+ (L+)
	WH	Q ₂
	BU	- (M)
	BK	Q ₁

Certificates

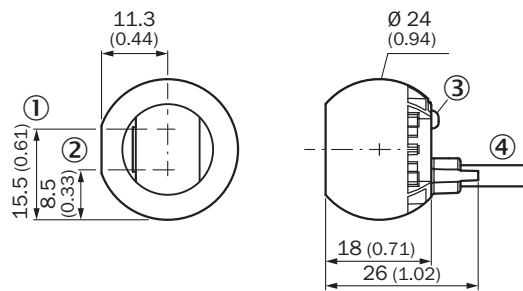
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓

Moroccan declaration of conformity	✓
China RoHS	✓

Classifications

ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

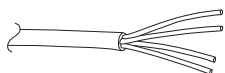
Dimensional drawing



Dimensions in mm (inch)

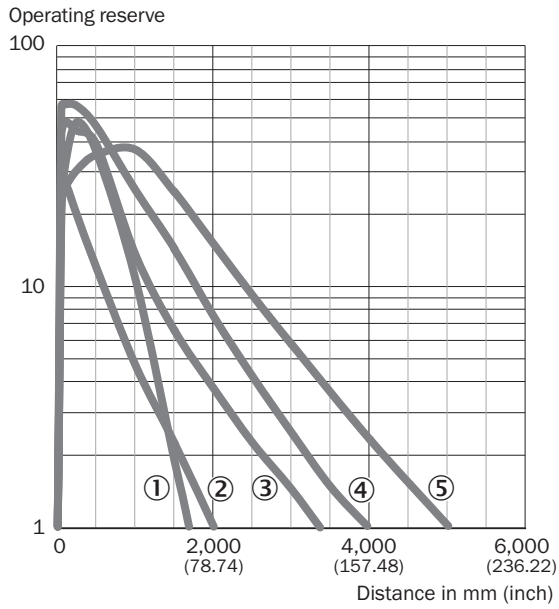
- ① optical axis, sender
- ② optical axis, receiver
- ③ LED status indicator
- ④ Connection

Pinouts, see table [Technical data: Connection type/pinouts](#)



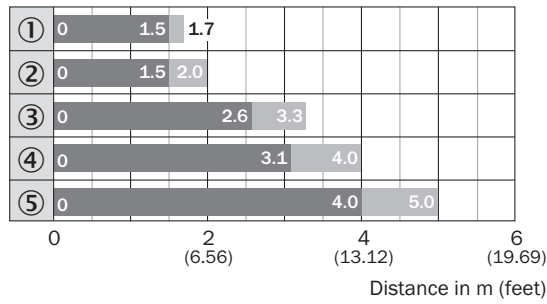
Cable with flying leads, 4-wire, AWG 26, 0.15 mm²

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

Recommended accessories

Other models and accessories → www.sick.com/Z18_Simple_Sense

	Brief description	Type	part no.
Mounting systems			
	<ul style="list-style-type: none"> Description: Universal mounting bracket for reflectors Dimensions (W x H x L): 85 mm x 90 mm x 35 mm Material: Steel Details: Steel, zinc coated Suitable for: C110A, P250, PL20, PL30A, PL40A, PL80A 	BEF-WN-REFX	2064574
reflectors and optics			
	<ul style="list-style-type: none"> Description: Rectangular, screw connection Dimensions: 51 mm 61 mm Ambient operating temperature: -30 °C ... +65 °C 	P250	5304812

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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