ZSE18-8AB1G3

Z18 Simple Sense

PHOTOELECTRIC SENSORS

SICK
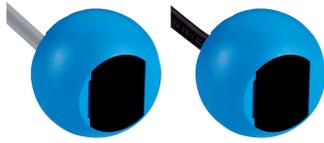Sensor Intelligence.

ZSE18-8AB1G3 | Z18 Simple Sense

PHOTOELECTRIC SENSORS

Ordering information

Type	part no.
ZSE18-8AB1G3	1095857

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

Illustration may differ

Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
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 ... 17 m
Sensing range	0 m ... 15 m
Type of light	Infrared light
Light source	LED
Light spot size (distance)	Ø 20 mm (500 mm)
Wave length	850 nm

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
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]

[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 frequency	1,000 kHz [3]
Connection type	Cable open end, 4-wire, 2,000 mm
Cable material	Plastic, PVC
Conductor cross section	0.13 mm²
Circuit protection	A [4] B [5] D [6]
Protection class	III
Weight	4.6 g
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 mm²
Pinouts Sender	
BN	+ (L+)
WH	Not connected
BU	- (M)
BK	Test IN
Pinouts Receiver	
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

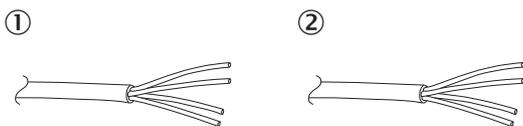|	
ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

Dimensional drawing
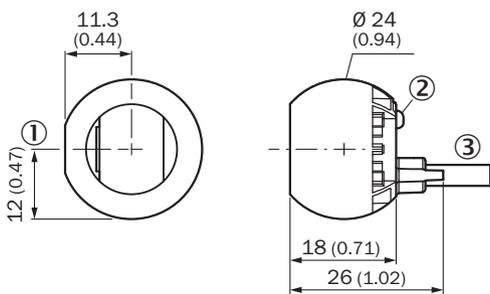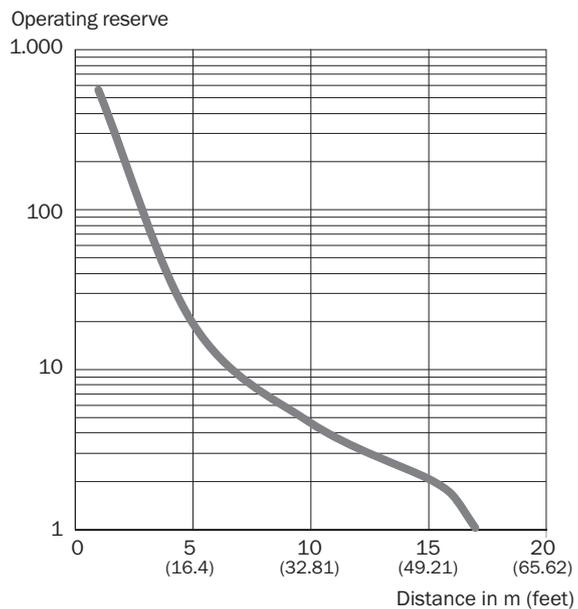
Dimensions in mm (inch)
① Optical axis
② LED status indicator
③ Connection

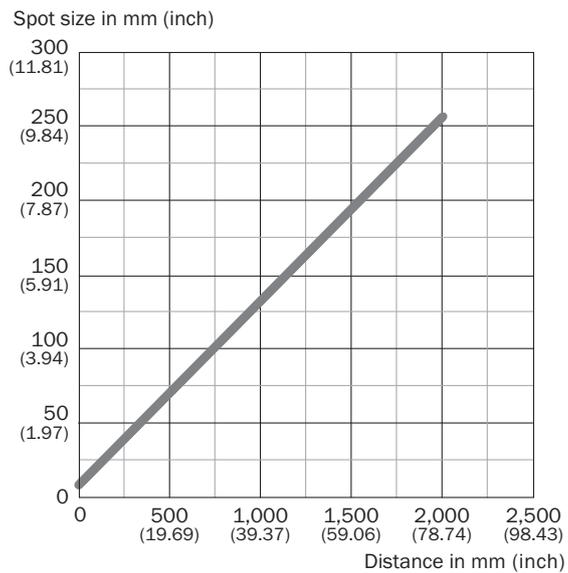## Pinouts, see table Technical data: Connection type/pinouts

①

②

① sender
② receiver

Characteristic curve

Operating reserve

Distance in m (feet)

Light spot size

Spot size in mm (inch)

Distance in mm (inch)

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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