ZSE18-9AB4B8

Z18 Simple Sense

HYBRID PHOTOELECTRIC SENSORS

SICK
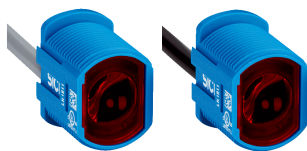Sensor Intelligence.

ZSE18-9AB4B8 | Z18 Simple Sense

HYBRID PHOTOELECTRIC SENSORS

Illustration may differ

Ordering information

Type	Part no.
ZSE18-9AB4B8	1095866

Included in delivery: BEF-MU-M18*1 (2)

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

Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
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 ... 22 m
Sensing range	0 m ... 20 m
Type of light	Visible red light
Light source	LED
Light spot size (distance)	Ø 125 mm (1,000 mm)
Wave length	625 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]
Switching frequency		1,000 kHz [3]

[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	Cable with M12 male connector, 4-pin, 150 mm
Cable material	Plastic, PVC
Conductor cross section	0.13 mm²
Circuit protection	A [4] B [5] D [6]
Protection class	III
Weight	2.49 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.

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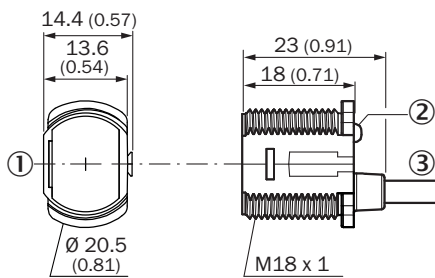
Connection type/pinouts

Connection type	Cable with M12 male connector, 4-pin, 150 mm
Connection type Detail	
Conductor cross section	0.13 mm²
Cable material	Plastic
Pinouts Sender	
BN 1	+ (L+)
WH 2	Not connected
BU 3	- (M)
BK 4	Test $_{IN}$
Pinouts Receiver	
BN 1	+ (L+)
WH 2	Q_2
BU 3	- (M)
BK 4	Q_1

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

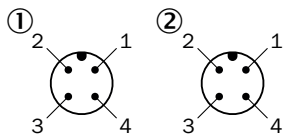| ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

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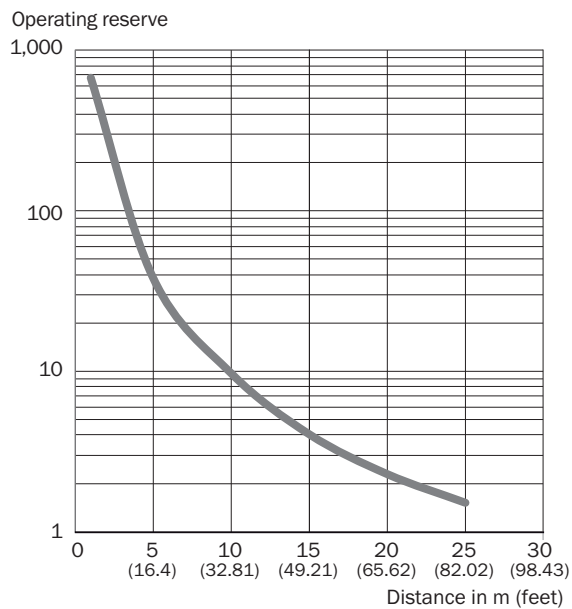
① Optical axis
② LED status indicator
③ Connection

Connection type

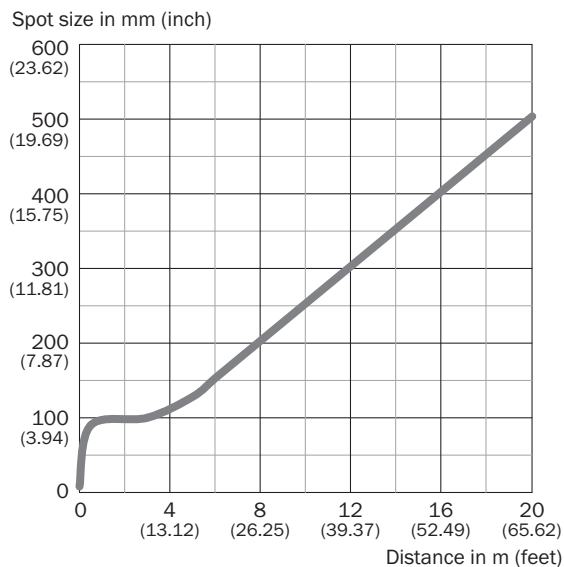Pinouts, see table Technical data: **Connection type/pinouts**

① Sender
② Receiver

Characteristic curve

Operating reserve

Distance in m (feet)

Light spot size

Spot size in mm (inch)

Distance in m (feet)

Recommended accessories

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

	Brief description	Type	Part no.
Others			
	• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235
	• **Connection type head A:** Male connector, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	STE-1204-G	6009932

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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