



ZSE18-4AB3A8

Z18 Simple Sense

HYBRID PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ



Ordering information

Type	Part no.
ZSE18-4AB3A8	1095856

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)	13.6 mm x 40.8 mm x 33.3 mm
Housing design (light emission)	Hybrid
Thread diameter (housing)	M18
Mounting system type	M18, head/M18, 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⁾

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	Male connector M8, 4-pin
Circuit protection	A ⁴⁾ B ⁵⁾ D ⁶⁾
Protection class	III
Weight	4.54 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	Male connector M8, 4-pin								
Pinouts <small>Sender</small>	<table border="0"> <tr> <td>BN 1</td> <td>+ (L+)</td> </tr> <tr> <td>WH 2</td> <td>Not connected</td> </tr> <tr> <td>BU 3</td> <td>- (M)</td> </tr> <tr> <td>BK 4</td> <td>Test _{IN}</td> </tr> </table>	BN 1	+ (L+)	WH 2	Not connected	BU 3	- (M)	BK 4	Test _{IN}
BN 1	+ (L+)								
WH 2	Not connected								
BU 3	- (M)								
BK 4	Test _{IN}								
Pinouts <small>Receiver</small>	<table border="0"> <tr> <td>BN 1</td> <td>+ (L+)</td> </tr> <tr> <td>WH 2</td> <td>Q₂</td> </tr> <tr> <td>BU 3</td> <td>- (M)</td> </tr> <tr> <td>BK 4</td> <td>Q₁</td> </tr> </table>	BN 1	+ (L+)	WH 2	Q ₂	BU 3	- (M)	BK 4	Q ₁
BN 1	+ (L+)								
WH 2	Q ₂								
BU 3	- (M)								
BK 4	Q ₁								

Classifications

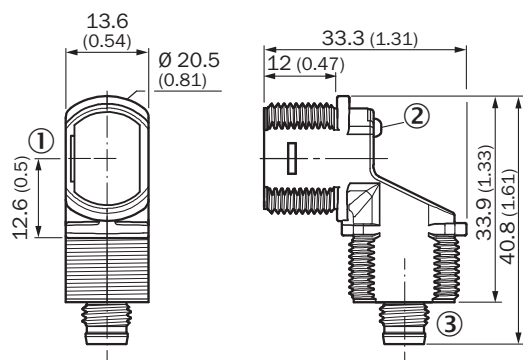
ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901

ZSE18-4AB3A8 | Z18 Simple Sense

HYBRID PHOTOELECTRIC SENSORS

ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

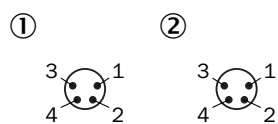
Dimensional drawing (Dimensions in mm (inch))



- ① Optical axis
- ② LED status indicator
- ③ Connection

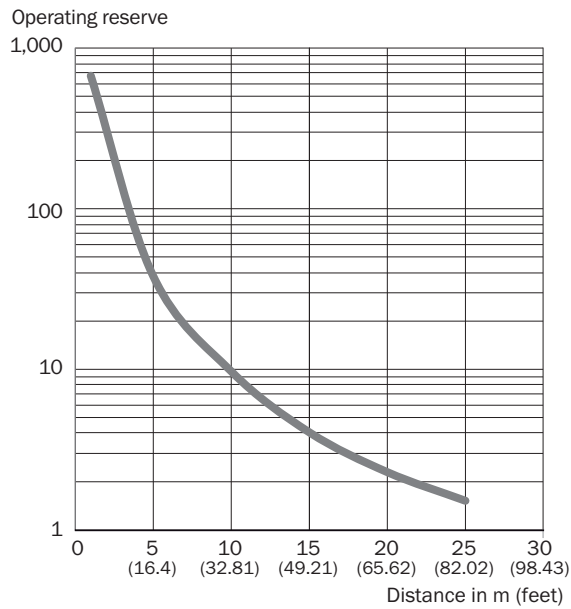
Connection type

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

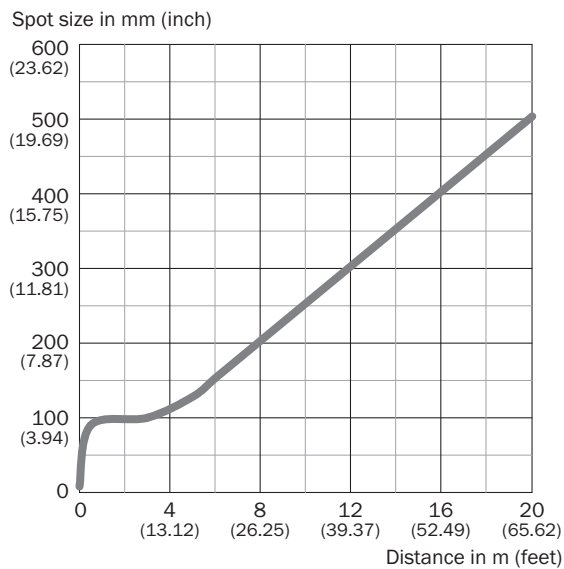


- ① Sender
- ② Receiver

Characteristic curve





Light spot size



Recommended accessories

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

	Brief description	Type	Part no.
Others			
	<ul style="list-style-type: none"> • Connection type head A: Female connector, M8, 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 	YF8U14-050VA3XLEAX	2095889
	<ul style="list-style-type: none"> • Connection type head A: Male connector, M8, 4-pin, straight, A-coded • Description: Unshielded • Connection systems: Screw-type terminals • Permitted cross-section: 0.14 mm² ... 0.5 mm² 	STE-0804-G	6037323

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.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com