Data sheet



ZSE18-5PZ3A8

Z18 Simple Sense

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

Type	part no.
ZSE18-5PZ3A8	1133214

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)	24 mm x 42.6 mm x 33.3 mm
Housing design (light emission)	Hybrid
Mounting system type	24 mm, ball/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	PNP
Switching mode	Light switching
Switching output detail	
Switching output Q1	PNP, Light switching
Switching output Q2	Not connected
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	6.12 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 Sender	
BN 1	+ (L+)
WH 2	Not connected
BU 3	- (M)
BK 4	Test IN
Pinouts Receiver	
BN 1	+ (L+)
WH 2	Not connected
BU 3	- (M)
BK 4	Q_1

Certificates

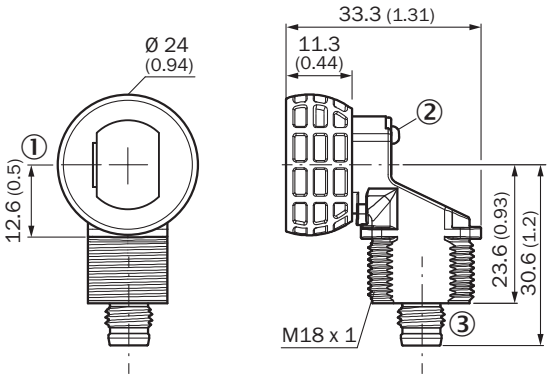
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓

Classifications

ECLASS 5.0	27270901
ECLASS 5.1.4	27270901
ECLASS 6.0	27270901
ECLASS 6.2	27270901

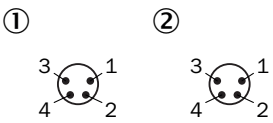
ECLASS 7.0	27270901
ECLASS 8.0	27270901
ECLASS 8.1	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
UNSPSC 16.0901	39121528

Dimensional drawing



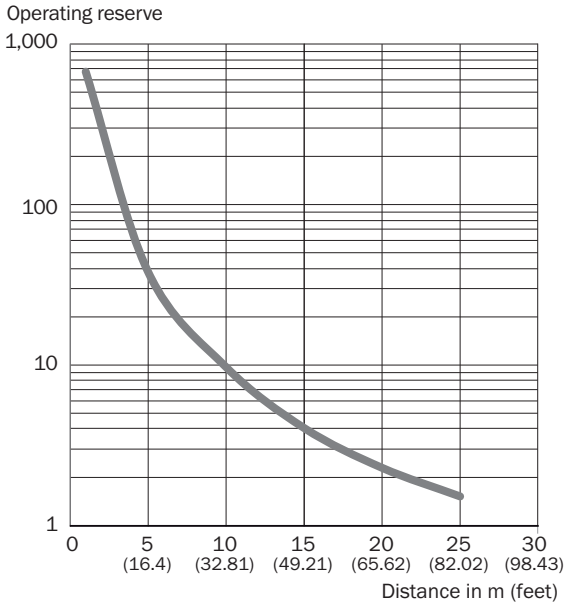
Dimensions in mm (inch)
① Optical axis
② LED status indicator
③ Connection

Pinouts, see table Technical data: Connection type/pinouts

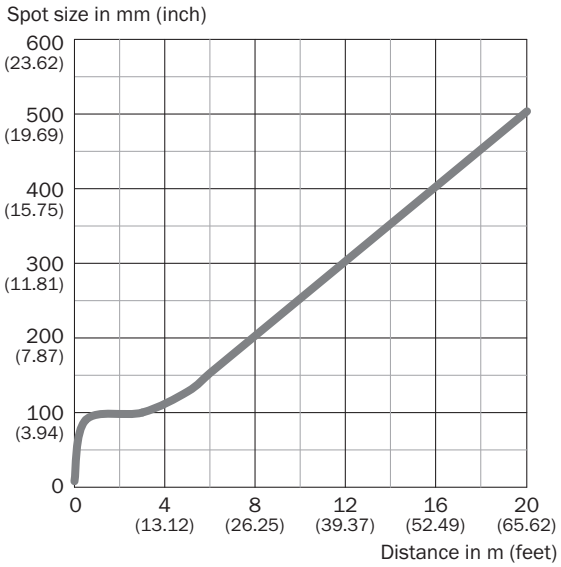


① sender
② receiver

Characteristic curve



Light spot size



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:

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