



# ZTE18-8AB1G2

SimpleSense

HYBRID PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



### Ordering information

Type	Part no.
ZTE18-8AB1G2	1095837

Other models and accessories → [www.sick.com/SimpleSense](http://www.sick.com/SimpleSense)

Illustration may differ



### Detailed technical data

#### Features

<b>Sensor/ detection principle</b>	Photoelectric proximity sensor, Energetic
<b>Dimensions (W x H x D)</b>	23.3 mm x 24 mm x 26 mm
<b>Housing design (light emission)</b>	Hybrid
<b>Thread diameter (housing)</b>	-
<b>Mounting system type</b>	24 mm, ball, without alignment aid
<b>Housing color</b>	Blue
<b>Sensing range max.</b>	0 mm ... 700 mm <sup>1)</sup>
<b>Sensing range</b>	0 mm ... 520 mm <sup>2)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	PinPoint LED
<b>Light spot size (distance)</b>	25 mm (1,000 mm)
<b>Wave length</b>	625 nm

<sup>1)</sup> Object with 90 % reflectance (referred to standard white, DIN 5033).

<sup>2)</sup> Object with 6 % reflectance (referred to standard white, DIN 5033).

#### Mechanics/electronics

<b>Supply voltage</b>	10 V DC ... 30 V DC
<b>Ripple</b>	< 10 %
<b>Power consumption</b>	15 mA <sup>1)</sup>
<b>Switching output</b>	PUSH/PULL
<b>Switching mode</b>	Light switching

<sup>1)</sup> Without load.

<sup>2)</sup> Signal transit time with resistive load.

<sup>3)</sup> With light/dark ratio 1:1.

<sup>4)</sup> A = V<sub>S</sub> connections reverse-polarity protected.

<sup>5)</sup> B = inputs and output reverse-polarity protected.

<sup>6)</sup> D = outputs overcurrent and short-circuit protected.

<sup>7)</sup> Reference voltage: 50 V DC.

<b>Switching output detail</b>	
Switching output Q1	PUSH/PULL, Light switching
Switching output Q2	PUSH/PULL, Dark switching
<b>Output current I<sub>max</sub></b>	100 mA
<b>Response time</b>	≤ 1 ms <sup>2)</sup>
<b>Switching frequency</b>	500 Hz <sup>3)</sup>
<b>Connection type</b>	Cable open end, 4-wire, 2,000 mm
<b>Cable material</b>	PVC
<b>Conductor cross-section</b>	0.13 mm <sup>2</sup>
<b>Circuit protection</b>	A <sup>4)</sup> B <sup>5)</sup> D <sup>6)</sup>
<b>Protection class</b>	III <sup>7)</sup>
<b>Weight</b>	4.6 g
<b>Housing material</b>	Plastic, ABS
<b>Optics material</b>	Plastic, PMMA
<b>Enclosure rating</b>	IP67
<b>Ambient operating temperature</b>	-40 °C ... +55 °C
<b>Ambient storage temperature</b>	-40 °C ... +70 °C
<b>UL File No.</b>	E189383

1) Without load.

2) Signal transit time with resistive load.

3) With light/dark ratio 1:1.

4) A = V<sub>S</sub> connections reverse-polarity protected.

5) B = inputs and output reverse-polarity protected.

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

7) Reference voltage: 50 V DC.

## Classifications

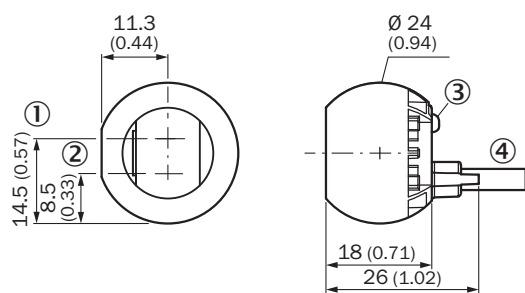
<b>ECl@ss 5.0</b>	27270904
<b>ECl@ss 5.1.4</b>	27270904
<b>ECl@ss 6.0</b>	27270904
<b>ECl@ss 6.2</b>	27270904
<b>ECl@ss 7.0</b>	27270904
<b>ECl@ss 8.0</b>	27270904
<b>ECl@ss 8.1</b>	27270904
<b>ECl@ss 9.0</b>	27270904
<b>ETIM 5.0</b>	EC002719
<b>ETIM 6.0</b>	EC002719
<b>UNSPSC 16.0901</b>	39121528

## Connection/pin out

<b>Connection type</b>	Cable open end, 4-wire, 2,000 mm
<b>Connection type Detail</b>	

	Cable material	PVC
	Conductor cross-section	0.13 mm <sup>2</sup>
<b>Pin out</b>	BN	+ (L+)
	WH	Q <sub>2</sub>
	BU	- (M)
	BK	Q <sub>1</sub>

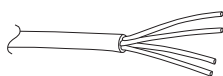
### Dimensional drawing (Dimensions in mm (inch))



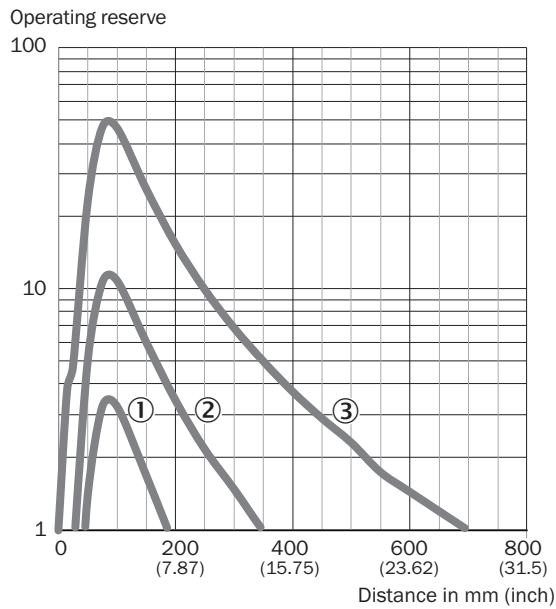
- ① Optical axis, sender
- ② Optical axis, receiver
- ③ LED status indicator
- ④ Connection

### Connection type

See table: **Connection/pin out**

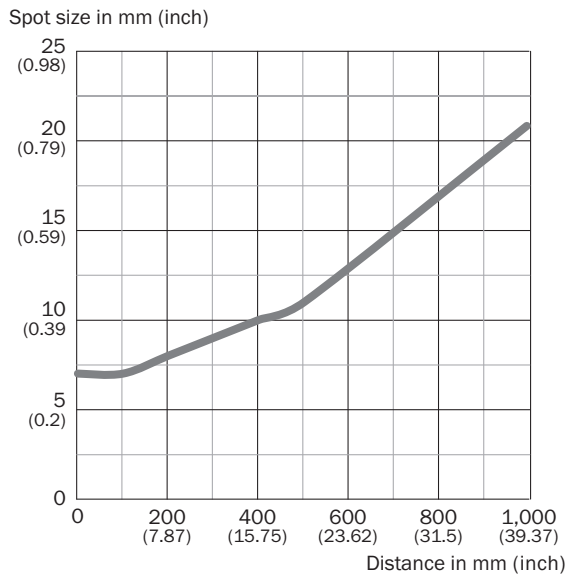


### Characteristic curve

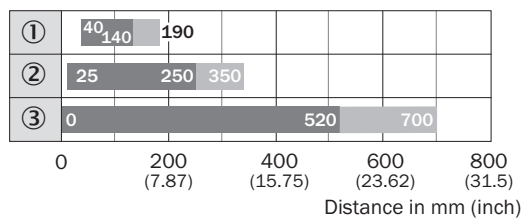


- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18 % remission
- ③ Sensing range on white, 90% remission

### Light spot size



### Sensing range diagram



■ Sensing range      ■ Sensing range max.

- ① Sensing range on black, 6% remission
- ② Sensing range on gray, 18% remission
- ③ Sensing range on white, 90% remission

## 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](http://www.sick.com)