



# ZTE18-4FZAB8

Z18 Simple Sense

PHOTOELECTRIC SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	part no.
ZTE18-4FZAB8	1131330

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

Other models and accessories → [www.sick.com/Z18\\_Simple\\_Sense](http://www.sick.com/Z18_Simple_Sense)

### Detailed technical data

#### Features

<b>Functional principle</b>	Photoelectric proximity sensor
<b>Functional principle detail</b>	Energetic
<b>Dimensions (W x H x D)</b>	13.6 mm x 42.9 mm x 33.3 mm
<b>Housing design (light emission)</b>	Hybrid
<b>Mounting system type</b>	M18, head/M18, base
<b>Housing color</b>	Blue
<b>Sensing range max.</b>	0 mm ... 740 mm <sup>1)</sup>
<b>Sensing range</b>	0 mm ... 590 mm <sup>2)</sup>
<b>Type of light</b>	Visible red light
<b>Light source</b>	LED
<b>Wave length</b>	625 nm

<sup>1)</sup> Object with 90% remission (based on standard white, DIN 5033).

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

#### Mechanics/electronics

<b>Supply voltage U<sub>B</sub></b>	10 V DC ... 30 V DC
<b>Ripple</b>	< 10 %
<b>Current consumption</b>	≤ 15 mA <sup>1)</sup>
<b>Switching output</b>	PNP

<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.

<b>Switching mode</b>	Dark switching
<b>Switching output detail</b>	
Switching output Q1	PNP, Dark switching
Switching output Q2	Not connected
<b>Output current <math>I_{\max}</math></b>	100 mA
<b>Response time</b>	$\leq 1 \text{ ms}^{2)}$
<b>Switching frequency</b>	500 kHz <sup>3)</sup>
<b>Connection type</b>	Cable with connector RJ11, 6-pin, 150 mm
<b>Cable material</b>	Plastic, 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
<b>Weight</b>	4.54 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 temperature, storage</b>	-40 °C ... +70 °C
<b>UL File No.</b>	E189383

<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.

## Connection type/pinouts

<b>Connection type</b>	Cable with connector RJ11, 6-pin, 150 mm
<b>Connection type Detail</b>	
Conductor cross section	0.13 mm <sup>2</sup>
Cable material	Plastic
<b>Pinouts</b>	
BN 2	+ (L+)
BK 3	Q <sub>1</sub>
WH 4	Not connected
BU 5	- (M)

## Certificates

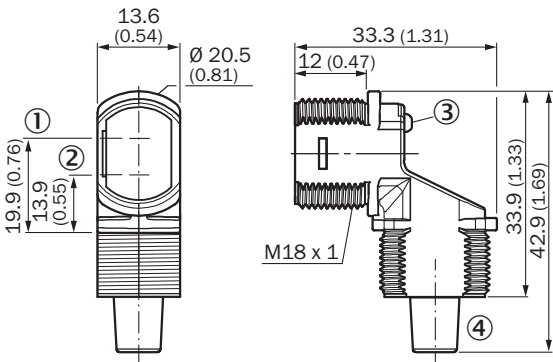
<b>EU declaration of conformity</b>	✓
<b>UK declaration of conformity</b>	✓
<b>ACMA declaration of conformity</b>	✓
<b>Moroccan declaration of conformity</b>	✓

China-RoHS	✓
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Classifications

ECLASS 5.0	27270903
ECLASS 5.1.4	27270903
ECLASS 6.0	27270903
ECLASS 6.2	27270903
ECLASS 7.0	27270903
ECLASS 8.0	27270903
ECLASS 8.1	27270903
ECLASS 9.0	27270903
ECLASS 10.0	27270903
ECLASS 11.0	27270903
ECLASS 12.0	27270903
ETIM 5.0	EC002719
ETIM 6.0	EC002719
ETIM 7.0	EC002719
ETIM 8.0	EC002719
UNSPSC 16.0901	39121528

Dimensional drawing



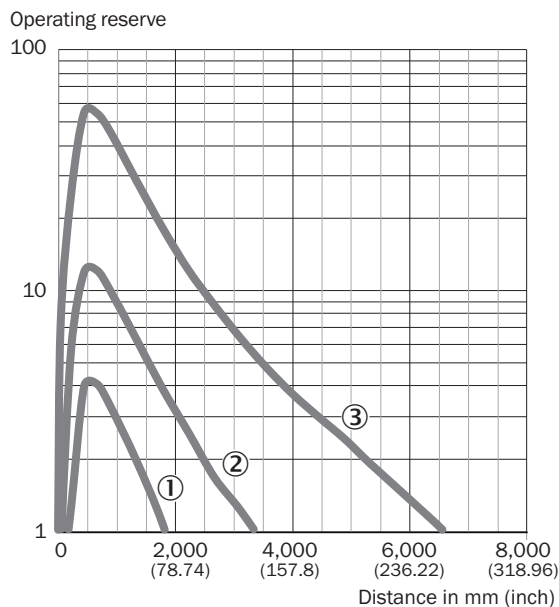
Dimensions in mm (inch)

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

Pinouts, see table Technical data: <b>Connection type/pinouts</b>

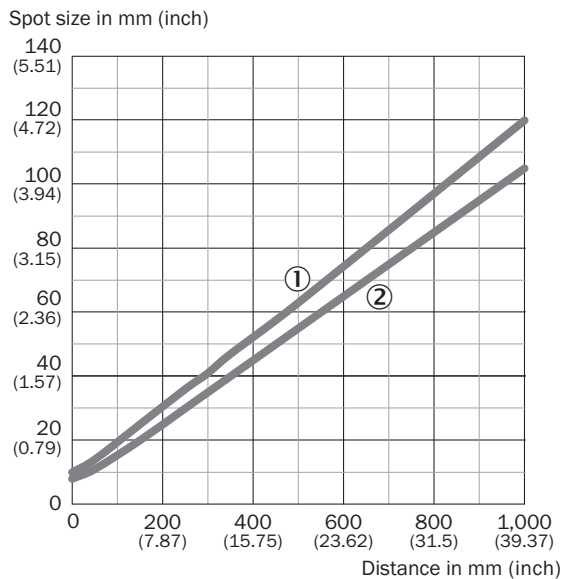


## Characteristic curve



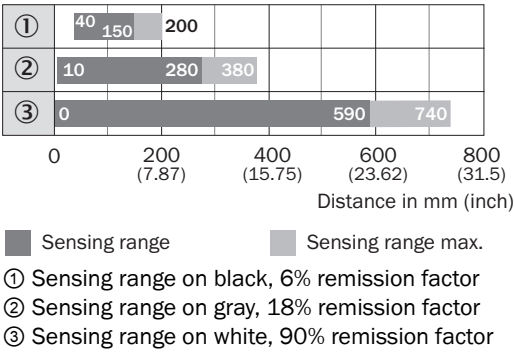
- ① Sensing range on black, 6% remission factor
- ② Sensing range on gray, 18% remission factor
- ③ Sensing range on white, 90% remission factor

## Light spot size



- ① Light spot vertical
- ② Light spot horizontal

Sensing range diagram



## 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)