

# ZLD18-2FZD12

Z18 Simple Sense

**PHOTOELECTRIC SENSORS** 



# SICK OF THE PARTY OF THE PARTY

### Ordering information

Туре	part no.
ZLD18-2FZD12	1133296

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

Other models and accessories → www.sick.com/Z18\_Simple\_Sense

Illustration may differ



### Detailed technical data

### **Features**

Functional principle	Photoelectric retro-reflective sensor
Functional principle detail	With minimum distance to reflector (dual lens system)
Dimensions (W x H x D)	13.6 mm x 34.8 mm x 21.9 mm
Housing design (light emission)	Hybrid
Mounting system type	M18, head/side (24.1 25.4 mm)
Housing color	Blue
Sensing range max.	0 m 7.8 m <sup>1)</sup>
Sensing range	0 m 6.8 m <sup>1)</sup>
Type of light	Visible red light
Light source	PinPoint LED
Light spot size (distance)	Ø 25 mm (1,000 mm)
Wave length	625 nm

<sup>1)</sup> Reflector PL80A.

### Mechanics/electronics

Supply voltage U <sub>B</sub>	10 V DC 30 V DC
Ripple	< 10 %
Current consumption	$\leq$ 15 mA $^{1)}$
Switching output	PNP

<sup>&</sup>lt;sup>1)</sup> Without load.

 $<sup>^{2)}</sup>$  Signal transit time with resistive load.

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

 $<sup>^{\</sup>rm 4)}$  A = V  $_{\rm S}$  connections reverse-polarity protected.

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

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

Switching mode	Dark switching
Switching output detail	
Switching o	utput Q1 PNP, Dark switching
Switching o	utput Q2 Not connected
Output current I <sub>max.</sub>	100 mA
Response time	≤ 500 µs <sup>2)</sup>
Switching frequency	1,000 kHz <sup>3)</sup>
Connection type	Terminal connection Wago 733-104, 4-pin, 800 mm
Cable material	Plastic, PVC
Conductor cross section	0.13 mm <sup>2</sup>
Circuit protection	A <sup>4)</sup> B <sup>5)</sup> D <sup>6)</sup>
Protection class	III
Weight	4.54 g
Polarizing filter	✓
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

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

### Connection type/pinouts

Connection type	
	Terminal connection Wago 733-104, 4-pin, 800 mm
Connection type Detail	
Cable material	Plastic
Conductor cross section	0.13 mm <sup>2</sup>
Pinouts	
BN 1	+ (L+)
OG 2	$Q_1$
BU 3	- (M)
WH 4	Not connected

### Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓

<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.

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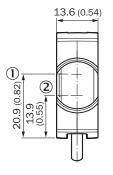
### PHOTOELECTRIC SENSORS

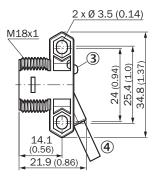
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓

### Classifications

ECLASS 5.0	27270902
ECLASS 5.1.4	27270902
ECLASS 6.0	27270902
ECLASS 6.2	27270902
ECLASS 7.0	27270902
ECLASS 8.0	27270902
ECLASS 8.1	27270902
ECLASS 9.0	27270902
ECLASS 10.0	27270902
ECLASS 11.0	27270902
ECLASS 12.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
ETIM 7.0	EC002717
ETIM 8.0	EC002717
UNSPSC 16.0901	39121528

### Dimensional drawing





Dimensions in mm (inch)

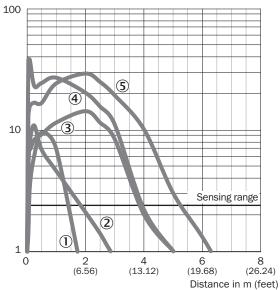
- ① optical axis, sender
- ② optical axis, receiver
- 3 LED status indicator
- ④ Connection

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



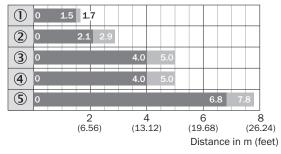
### Characteristic curve





- 1 Reflector PL23 FT
- ② Reflector PL20A
- 3 Reflector P250
- ④ Reflector PL40A
- ⑤ Reflector PL80A

### Sensing range diagram



- Sensing range
- Sensing range typ. max.
- ① Reflector PL23 FT
- ② Reflector PL20A
- 3 Reflector P250
- 4 Reflector PL40A
- ⑤ Reflector PL80A

### Recommended accessories

Other models and accessories → www.sick.com/Z18\_Simple\_Sense

	Brief description	Туре	part no.	
Mounting syst	Mounting systems			
a a a a a	<ul> <li>Description: Universal mounting bracket for reflectors</li> <li>Dimensions (W x H x L): 85 mm x 90 mm x 35 mm</li> <li>Material: Steel</li> <li>Details: Steel, zinc coated</li> <li>Suitable for: C110A, P250, PL20, PL30A, PL40A, PL80A</li> </ul>	BEF-WN-REFX	2064574	
40	<ul> <li>Description: Mounting bracket for M18 sensors</li> <li>Material: Steel</li> <li>Details: Steel, zinc coated</li> <li>Items supplied: Without mounting hardware</li> <li>Suitable for: GR18, V180-2, V18, W15, Z1, Z2</li> </ul>	BEF-WN-M18	5308446	
reflectors and optics				
	<ul> <li>Description: Rectangular, screw connection</li> <li>Dimensions: 51 mm 61 mm</li> <li>Ambient operating temperature: -30 °C +65 °C</li> </ul>	P250	5304812	

### 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

