WSE4-3P3130

W4-3

SICK
Sensor Intelligence.

MINIATURE PHOTOELECTRIC SENSORS

Illustration may differ

Ordering information

Type	Part no.
WSE4-3P3130	1028161

Other models and accessories ➜ www.sick.com/W4-3

Detailed technical data

Features

Sensor/ detection principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	16 mm x 39.5 mm x 12 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 4 m
Sensing range	0 m ... 3.5 m
Type of light	Visible red light
Light source	PinPoint LED [1]
Light spot size (distance)	Ø 75 mm (2 m)
Wave length	650 nm
Adjustment	None

[1] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC [1]

[1] Limit values.
[2] May not exceed or fall below U_v tolerances.
[3] Sender.
[4] Signal transit time with resistive load.
[5] With light/dark ratio 1:1.
[6] Do not bend below 0 °C.
[7] A = V_S connections reverse-polarity protected.
[8] C = interference suppression.
[9] D = outputs overcurrent and short-circuit protected.

Ripple	< 5 V_{pp} [2]
Power consumption	20 mA [3]
Switching output	PNP
Switching mode	Light switching
Output current $I_{max.}$	≤ 100 mA
Response time	< 0.5 ms [4]
Switching frequency	1,000 Hz [5]
Connection type	Cable with connector M8, 3-pin, 100 mm [6]
Cable material	PVC
Conductor cross-section	0.14 mm²
Cable diameter	Ø 3.4 mm
Circuit protection	A [7] C [8] D [9]
Protection class	III
Weight	60 g
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP66
Test input sender off	TE to 0 V
Ambient operating temperature	–40 °C ... +60 °C
Ambient storage temperature	–40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493
Part number of individual components	2038952 WS4-3D3130 2038953 WE4-3P3130

[1] Limit values.

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[3] Sender.

[4] Signal transit time with resistive load.

[5] With light/dark ratio 1:1.

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[7] A = V_S connections reverse-polarity protected.

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[9] D = outputs overcurrent and short-circuit protected.

Safety-related parameters

$MTTF_D$	1,103 years
DC_{avg}	0%

Classifications

ECl@ss 5.0	27270901
ECl@ss 5.1.4	27270901
ECl@ss 6.0	27270901
ECl@ss 6.2	27270901
ECl@ss 7.0	27270901

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ECl@ss 8.0	27270901
ECl@ss 8.1	27270901
ECl@ss 9.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
UNSPSC 16.0901	39121528

Connection diagram

Connection diagram

① ②

```
BN  1  + (L+)        BN  1  + (L+)
BU  3  - (M)         BU  3  - (M)
BK  4  Test          BK  4  Q
```

① Sender
② Receiver
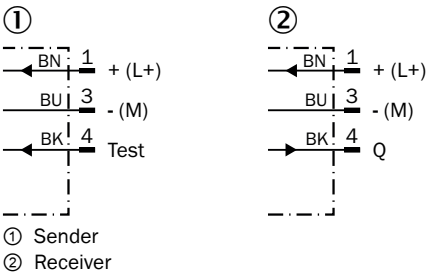
Characteristic curve

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Operating reserve

Distance in m (feet)
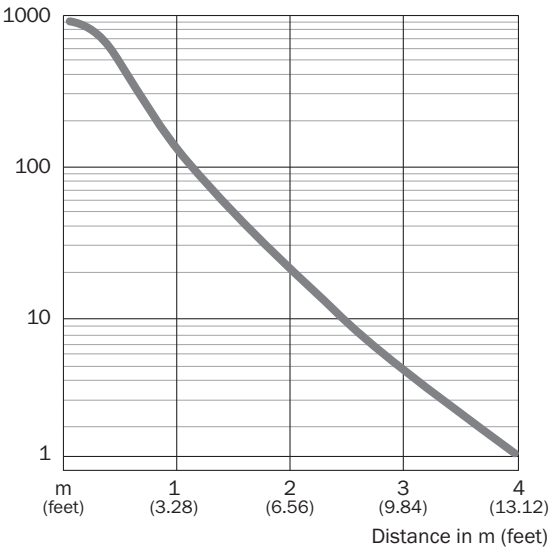
Sensing range diagram

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0			3.5	4	

0	1 (3.28)	2 (6.56)	3 (9.84)	4 (13.12)

Distance in m (feet)

■ Sensing range typ. max   ■ Sensing range
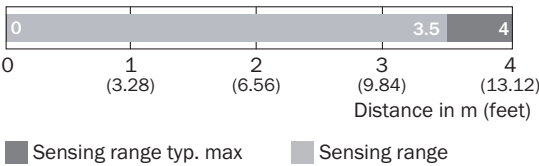
Dimensional drawing (Dimensions in mm (inch))

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12 (0.47)
16 (0.63)
39.5 (1.56)
28.5 (1.12)
17.6 (0.69)
11 (0.43)
9 (0.35)
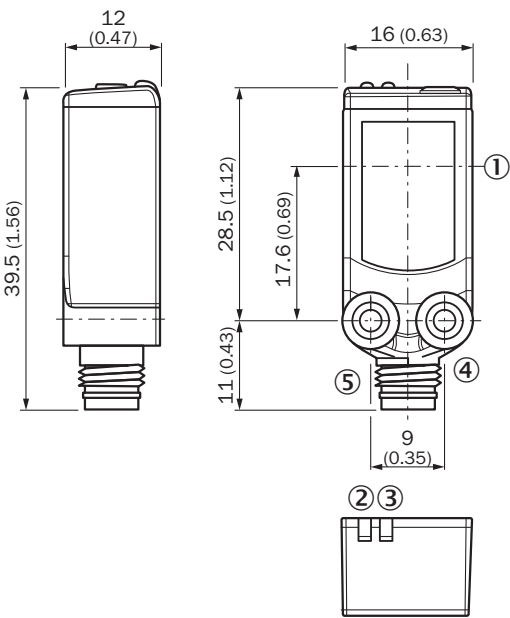
① Center of optical axis
② Orange LED indicator: status of received light beam
③ LED indicator green: Supply voltage active
④ Threaded mounting hole M3
⑤ Connection

Recommended accessories

Other models and accessories ➜ www.sick.com/W4-3

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N08	2051607

Brief description	Type	Part no.
Plug connectors and cables		
Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1XLEAX	2095884
Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322

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."

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