



WSE4S-3E1330H

W4

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

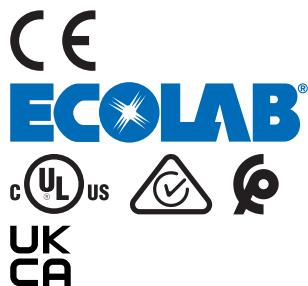


Ordering information

Type	part no.
WSE4S-3E1330H	1052868

Other models and accessories → www.sick.com/W4

Illustration may differ



Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Sensing range max.	0 m ... 5 m
Sensing range	0 m ... 4.5 m
Emitted beam	
Light source	PinPoint LED ¹⁾
Type of light	Visible red light
Light spot size (distance)	Ø 50 mm (2 m)
Key LED figures	
Wave length	650 nm
Adjustment	None
Special applications	Hygienic and washdown zones
Part number of individual components	2058456 WS4S-3D1330H 2058458 WE4S-3E1330H
Housing design	Hygiene

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

Safety-related parameters

MTTF_D	753 years
DC_{avg}	0 %
T_M (mission time)	20 years

Electronics

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	$< 5 \text{ V}_{\text{pp}}$ ²⁾
Current consumption	20 mA ³⁾
Protection class	III
Digital output	
Type	NPN
Switching mode	Dark switching
Output current $I_{\text{max.}}$	$\leq 100 \text{ mA}$
Response time	$< 0.5 \text{ ms}$ ⁴⁾
Switching frequency	1,000 Hz ⁵⁾
Circuit protection	
A ⁶⁾	
B ⁷⁾	
C ⁸⁾	
Test input sender off	TE to 0 V

¹⁾ Limit values, reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

²⁾ May not fall below or exceed U_V tolerances.

³⁾ Sender.

⁴⁾ Signal transit time with resistive load.

⁵⁾ With light/dark ratio 1:1.

⁶⁾ A = V_S connections reverse-polarity protected.

⁷⁾ B = inputs and output reverse-polarity protected.

⁸⁾ C = interference suppression.

Mechanics

Housing	Rectangular
Design detail	Slim
Dimensions (W x H x D)	15.25 mm x 48.6 mm x 22.15 mm
Connection	Cable, 3-wire, 2 m ¹⁾
Connection detail	
Conductor size	0.14 mm ²
Length of cable (L)	2 m ¹⁾
Material	
Housing	Metal, Stainless steel V4A (1.4404, 316L)
Front screen	Plastic, PMMA
Cable	Plastic, PVC
Weight	80 g

¹⁾ Do not bend below 0 °C.

Ambient data

Enclosure rating	IP66 IP67 IP68 IP69K
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¹⁾ At $UV \leq 24 \text{ V}$ and $IA < 30 \text{ mA}$.

Ambient operating temperature	-30 °C ... +60 °C ¹⁾
Ambient temperature, storage	-30 °C ... +75 °C
UL File No.	FDA, UL No. NRKH.E181493 & cUL No. NRKH7.E181493

¹⁾ At UV ≤ 24 V and IA < 30 mA.

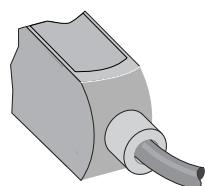
Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
ECOLAB certificate	✓
cULus certificate	✓
Photobiological safety (DIN EN 62471) certificate	✓

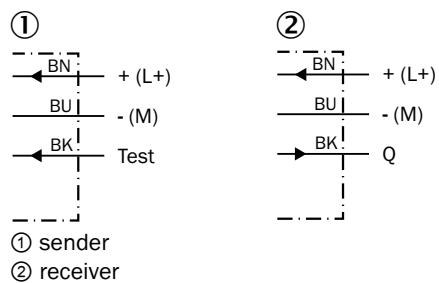
Classifications

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

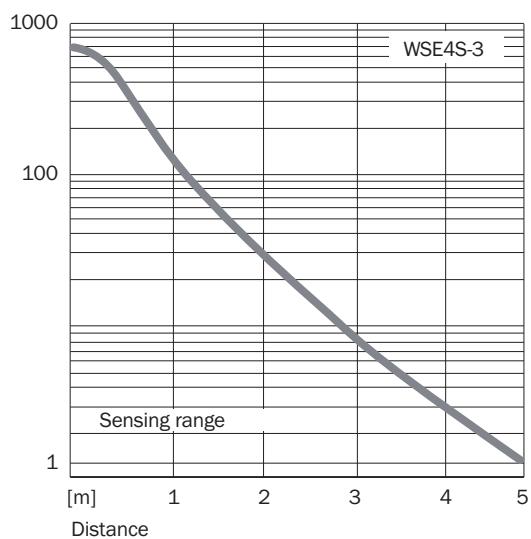
Connection type



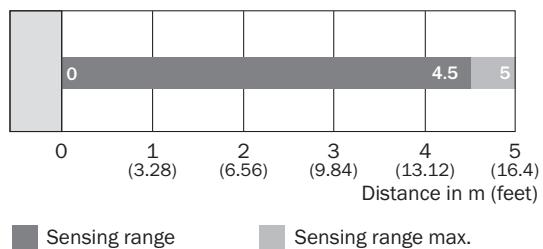
Connection diagram Cd-061



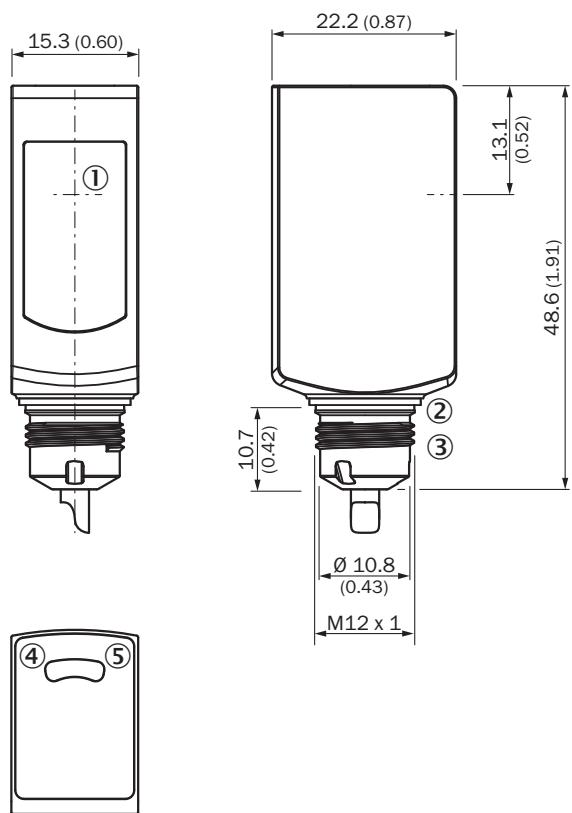
Characteristic curve WSE4S-3V, WSE4S-3H



Sensing range diagram WSE4S-3



Dimensional drawing WSE4S-3H



Dimensions in mm (inch)

- ① Center of optical axis, sender (WS) and receiver (WE)
- ② Sealing ring (tightening torque 6 Nm)
- ③ Connector M12
- ④ LED indicator yellow: Status of received light beam
- ⑤ LED indicator green: Supply voltage active

Recommended accessories

Other models and accessories → www.sick.com/W4

Brief description	Type	part no.
connectors and cables		



- **Connection type head A:** Male connector, M8, 3-pin, straight, A-coded
- **Description:** Unshielded
- **Connection systems:** Screw-type terminals
- **Permitted cross-section:** 0.14 mm² ... 0.5 mm²

STE-0803-G

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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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