



WSE11-2K2430

W11-2

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

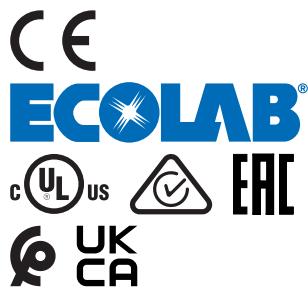


Ordering information

Type	part no.
WSE11-2K2430	1057575

Other models and accessories → www.sick.com/W11-2

Illustration may differ



Detailed technical data

Features

Functional principle	Through-beam photoelectric sensor
Dimensions (W x H x D)	15.6 mm x 48.5 mm x 42 mm
Housing design (light emission)	Rectangular
Sensing range max.	0 m ... 20 m
Sensing range	0 m ... 15 m
Focus	Approx. 1.5°
Type of light	Visible red light
Light source	LED ¹⁾
Light spot size (distance)	Ø 220 mm (15 m)
Angle of dispersion	Approx. 1.5°
Wave length	633 nm
Adjustment	None

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

Mechanics/electronics

Supply voltage U_B	10 V DC ... 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Power consumption, sender	≤ 25 mA ³⁾
Power consumption, receiver	≤ 20 mA ³⁾
Switching output	PNP ⁴⁾
Output function	Complementary
Switching mode	Light/dark switching ⁴⁾
Signal voltage PNP HIGH/LOW	U _v - 2.5 V / approx. 0 V
Output current $I_{max.}$	≤ 100 mA
Response time	≤ 2.5 ms ⁵⁾
Switching frequency	200 Hz ⁶⁾
Connection type	Male connector M12, 4-pin
Circuit protection	A ⁷⁾ C ⁸⁾ D ⁹⁾
Protection class	III
Weight	120 g
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP66 IP67 IP69K
Test input sender off	TE to 0 V
Ambient operating temperature	-30 °C ... +60 °C
Ambient temperature, storage	-40 °C ... +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493
Part number of individual components	2063410 WS11-2D2430 2063416 WE11-2K2430

¹⁾ Limit values when operated in short-circuit protected network: max. 8 A.

²⁾ May not fall below or exceed U_v tolerances.

³⁾ Without load.

⁴⁾ Pin 2 and pin 4 swapped over.

⁵⁾ Signal transit time with resistive load.

⁶⁾ With light/dark ratio 1:1.

⁷⁾ A = V_S connections reverse-polarity protected.

⁸⁾ C = interference suppression.

⁹⁾ D = outputs overcurrent and short-circuit protected.

Safety-related parameters

MTTF_D	982 years
DC_{avg}	0 %
T_M (mission time)	20 years

Certificates

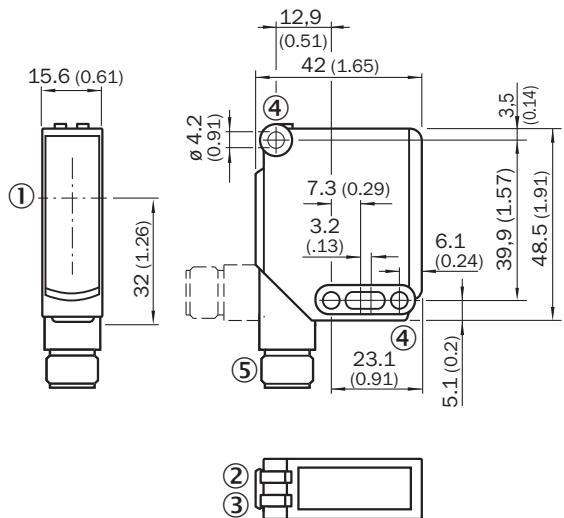
EU declaration of conformity	✓
-------------------------------------	---

UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China-RoHS	✓
ECOLAB certificate	✓
cULus certificate	✓
EAC certificate / DoC	✓
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

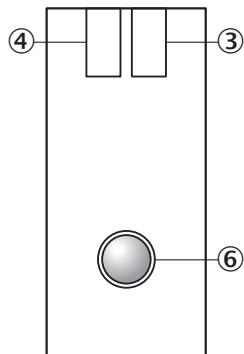
Dimensional drawing WSE11-2



Dimensions in mm (inch)

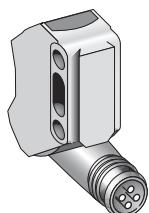
- ① Center of optical axis
- ② LED indicator green: Supply voltage active
- ③ LED indicator yellow: Status of received light beam
- ④ Mounting hole ø 4.2 mm
- ⑤ M12 connector, 4-pin or cable

Adjustments WTE11-2, WSE11-2

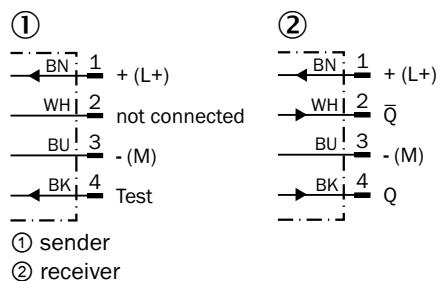


- ③ LED indicator green: Supply voltage active
- ④ LED indicator yellow: Status of received light beam
- ⑥ Adjustment sensing range: single teach-in button

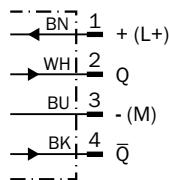
Connection type



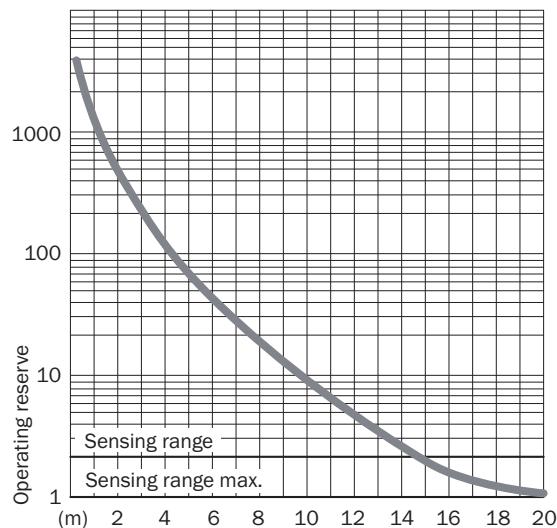
Connection diagram Cd-072



Connection diagram Cd-102



Characteristic curve WSE11-2



Recommended accessories

Other models and accessories → www.sick.com/W11-2

	Brief description	Type	part no.
connectors and cables			
	<ul style="list-style-type: none">Connection type head A: Female connector, M12, 4-pin, straight, A-codedConnection type head B: Flying leadsSignal type: Sensor/actuator cableCable: 5 m, 4-wire, PVCDescription: Sensor/actuator cable, unshieldedApplication: Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235
	<ul style="list-style-type: none">Connection type head A: Male connector, M12, 4-pin, straight, A-codedDescription: UnshieldedConnection systems: Screw-type terminalsPermitted cross-section: ≤ 0.75 mm²	STE-1204-G	6009932
Mounting systems			
	<ul style="list-style-type: none">Description: Mounting bracket, largeMaterial: Stainless steelDetails: Stainless steelItems supplied: Mounting hardware includedSuitable for: W11-2, W12-3, W16	BEF-WG-W12	2013942

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