

WL11-2P1130

W11-2

PHOTOELECTRIC SENSORS





Ordering information

Туре	part no.
WL11-2P1130	1041386

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

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)	15.6 mm x 48.5 mm x 42 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.15 m 10 m ¹⁾
Sensing range	0.15 m 8 m ¹⁾
Focus	Approx. 2.2°
Type of light	Visible red light
Light source	LED ²⁾
Light spot size (distance)	Ø 50 mm (3 m)
Angle of dispersion	Approx. 2.2°
Wave length	640 nm
Adjustment	None

¹⁾ Reflector PL80A.

 $^{^{2)}}$ Average service life: 100,000 h at TU = +25 °C.

Mechanics/electronics

Supply voltage U _B	10 V DC 30 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Current consumption	30 mA ³⁾
Switching output	PNP
Output function	Complementary
Switching mode	Light/dark switching
Signal voltage PNP HIGH/LOW	Uv - 2.5 V / approx. 0 V
Output current I _{max.}	≤ 100 mA
Response time	≤ 2.5 ms ⁴⁾
Switching frequency	200 Hz ⁵⁾
Connection type	Cable, 4-wire, 2 m ⁶⁾
Cable material	Plastic, PVC
Conductor cross section	0.25 mm ²
Circuit protection	A ⁷⁾ C ⁸⁾ D ⁹⁾
Protection class	III
Weight	200 g
Polarisation filter	✓
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP66 IP67 IP69K
Ambient operating temperature	-30 °C +60 °C
Ambient temperature, storage	-40 °C +75 °C
UL File No.	NRKH.E181493 & NRKH7.E181493

 $^{^{1)}\,\}mathrm{Limit}$ values when operated in short-circuit protected network: max. 8 A.

Safety-related parameters

MTF_D	2,783 years
DC _{avg}	0 %
T _M (mission time)	20 years

Certificates

EU declaration of conformity

²⁾ May not fall below or exceed U_V tolerances.

³⁾ Without load.

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.

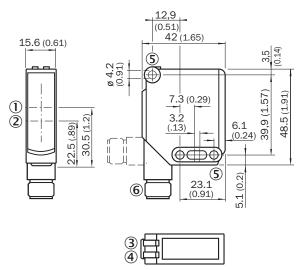
WL11-2P1130 | W11-2 PHOTOELECTRIC SENSORS

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	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

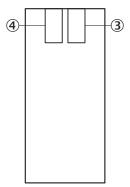
Dimensional drawing WL11-2



Dimensions in mm (inch)

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

Adjustments WL11-2

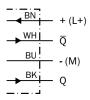


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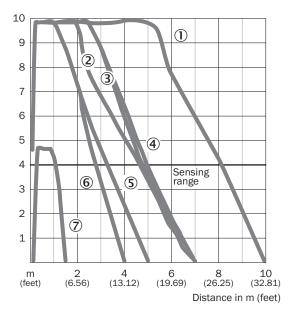
Connection type



Connection diagram Cd-094

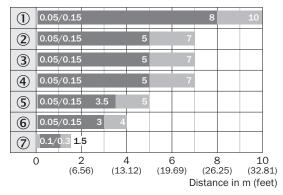


Characteristic curve



- ① Reflector PL80A
- ② Reflector C110A
- 3 Reflector PL50A
- 4 Reflector PL40A
- ⑤ Reflector PL30A
- ® Reflector PL20A
- ⑦ Reflective tape Diamond Grade

Sensing range diagram



- Sensing range
- Sensing range typ. max.

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Recommended accessories

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

	Brief description	Туре	part no.	
Mounting sys	Mounting systems			
	 Description: Mounting bracket, large Material: Stainless steel Details: Stainless steel Items supplied: Mounting hardware included Suitable for: W11-2, W12-3, W16 	BEF-WG-W12	2013942	
0 0 A 10 0	 Description: Universal mounting bracket for reflectors Dimensions (W x H x L): 85 mm x 90 mm x 35 mm Material: Steel Details: Steel, zinc coated Suitable for: C110A, P250, PL20, PL30A, PL40A, PL80A 	BEF-WN-REFX	2064574	
	 Description: Plate N11N for universal clamp bracket Material: Stainless steel Details: Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp) Items supplied: Universal clamp (5322627), mounting hardware Usable for: DeltaPac, Glare, WTD20E 	BEF-KHS-N11N	2071081	
reflectors and	doptics			
	 Description: Rectangular, screw connection Dimensions: 40 mm 60 mm Ambient operating temperature: -30 °C +65 °C 	PL4OA	1012720	
connectors and cables				
The state of the s	 Connection type head A: Male connector, M12, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: ≤ 0.75 mm² 	STE-1204-G	6009932	

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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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