



CSM-WN1122P

CSM

COLOR SENSORS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
CSM-WN1122P	1067293

Other models and accessories → www.sick.de/CSM



Detailed technical data

Features

Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Sensing distance	12.5 mm ¹⁾
Housing design (light emission)	Rectangular
Sensing distance tolerance	± 3 mm
Light source	LED, RGB ²⁾
Wave length	640 nm, 525 nm, 470 nm
Light spot size	1.5 mm x 6.5 mm
Light spot direction	Vertical
Einstellung	Teach-in button
Teach-in mode	1-point-teach-in

¹⁾ From front edge of lens.

²⁾ Average service life: 100,000 h at T_J = +25 °C.

Mechanics/electronics

Supply voltage	12 V DC ... 24 V DC ¹⁾
Ripple	< 5 V _{pp} ²⁾
Power consumption	< 50 mA ³⁾
Switching frequency	1.7 kHz ⁴⁾
Response time	300 μs ⁵⁾
Jitter	150 μs
Output type	NPN

¹⁾ Limit values: DC 12 V (-10 %) ... DC 24 V (+20 %). Operation in short-circuit protected network max. 8 A.

²⁾ May not exceed or fall below U_v tolerances.

³⁾ Without load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Signal transit time with resistive load.

⁶⁾ At supply voltage > 24 V, I_{max} = 30 mA. I_{max} is consumption count of all Q_N.

Switching output (voltage)	NPN: HIGH = approx. V_S / LOW ≤ 2 V
Output (channel)	1 color
Output current I_{max}	< 100 mA ⁶⁾
Input, teach-in (ET)	NPNTeach: $U < 2$ V Run: $U = 10$ V ... $< U_V$ or open
Connection type	Cable with M12 male connector, 4-pin, 0.2 m
Protection class	III
Circuit protection	U_V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Enclosure rating	IP 67
Weight	25 g
Housing material	ABS

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²⁾ May not exceed or fall below U_V tolerances.

³⁾ Without load.

⁴⁾ With light/dark ratio 1:1.

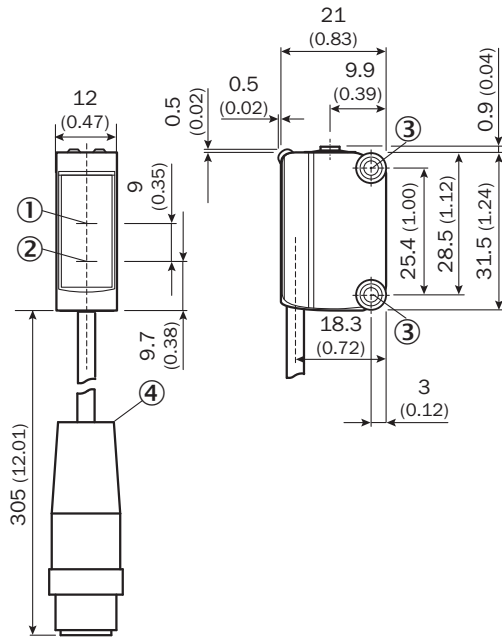
⁵⁾ Signal transit time with resistive load.

⁶⁾ At supply voltage > 24 V, $I_{max} = 30$ mA. I_{max} is consumption count of all Q_n .

Ambient data

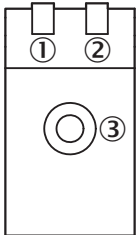
Ambient operating temperature	-10 °C ... +55 °C
Ambient storage temperature	-20 °C ... +75 °C
Shock load	According to IEC 60068
UL File No.	NRKH.E181493 & NRKH7.E181493

Dimensional drawing (Dimensions in mm (inch))



- ① Optical axis receiver
- ② Optical axis sender
- ③ Fixing hole M3
- ④ Cable with male connector

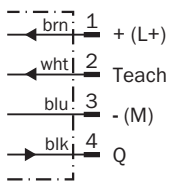
Adjustments



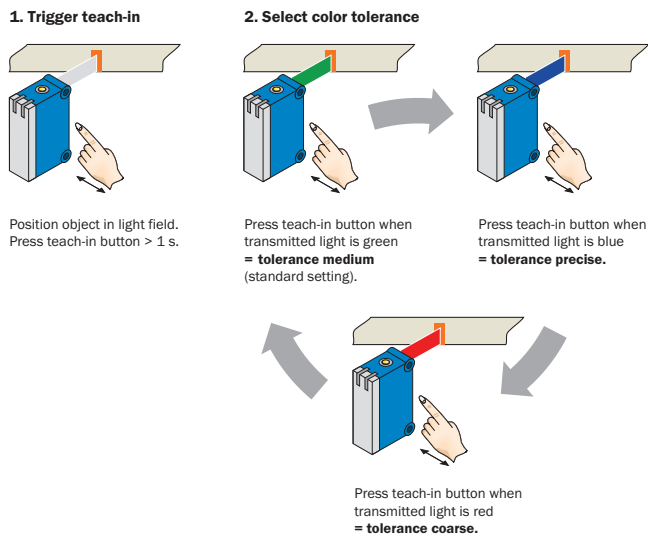
- ① Status indicator LED, yellow: Status switching output Q
- ② Status indicator LED green: supply voltage on
- ③ Teach-in button

Connection diagram

Cd-092



Concept of operation

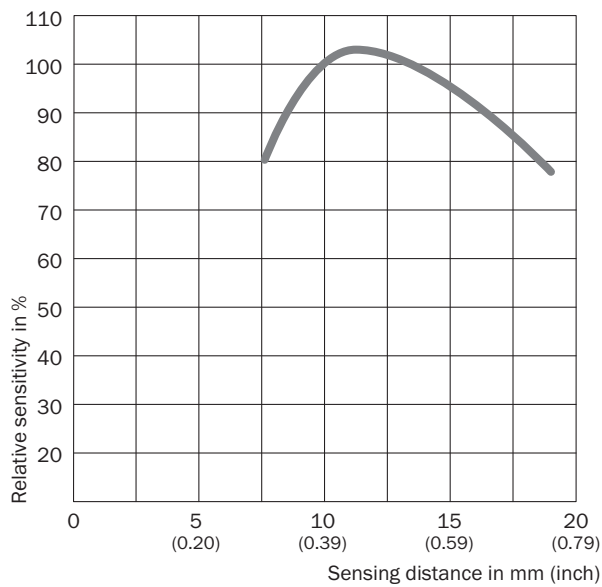


Teach-in can also be performed using an external control signal (only dynamic teach-in).

Keylock activation and deactivation: hold down teach-in button > 30 s.

Teach-in failure: yellow LED indicator and the transmitted light of the sensor flashing quickly.

Characteristic curve



Recommended accessories

Other models and accessories → www.sick.de/CSM

	Brief description	Type	Part no.
Universal bar clamp systems			
	Universal clamp bracket for rod mounting, steel, zinc coated, without mounting hardware	BEF-KHS-KH1	2022726
	Plate L for universal clamp bracket, steel, zinc coated, universal clamp and mounting hardware included	BEF-KHS-L01	2023057
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N08	2051607
	Plate N08N for universal clamp bracket, Stainless steel 1.4571 (sheet), Stainless steel 1.4408 (clamp), Universal clamp (5322626), mounting hardware	BEF-KHS-N08N	2051616
	Mounting bar, straight, 200 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12G-A	4056054
	Mounting bar, straight, 300 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12G-B	4056055
	Mounting bar, L-shaped, 150 mm x 150 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12L-A	4056052
	Mounting bar, L-shaped, 250 x 250 mm, steel, steel, zinc coated, without mounting hardware	BEF-MS12L-B	4056053
Mounting brackets and mounting plates			
	Mounting bracket for wall mounting, Stainless steel, mounting hardware included	BEF-W100-A	5311520
	Mounting bracket for floor mounting, steel, zinc coated, mounting hardware included	BEF-W100-B	5311521
	Mounting bracket for W100 with specific bore-hole arrangements, steel, zinc coated	BEF-WN-W100-S01	4073866
	Adapter plate KT3 to KTM, Stainless steel, fastening screws included	BEF-AP-KTMS01	2068786
Plug connectors and cables			
	Head A: female connector, M12, 4-pin, straight Head B: Cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
	Head A: female connector, M12, 4-pin, straight Head B: Cable Cable: PVC, unshielded, 5 m	DOL-1204-G05M	6009866
	Head A: female connector, M12, 4-pin, angled Head B: Cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383
	Head A: female connector, M12, 4-pin, angled Head B: Cable Cable: PVC, unshielded, 5 m	DOL-1204-W05M	6009867
	Head A: female connector, M12, 4-pin, straight Head B: - Cable: unshielded	DOS-1204-G	6007302
	Head A: female connector, M12, 4-pin, angled Head B: - Cable: unshielded	DOS-1204-W	6007303

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