

CSM-WN111C4P

COLOR SENSORS





Ordering information

Туре	part no.
CSM-WN111C4P	1122729

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

Illustration may differ



Detailed technical data

Features

Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Sensing distance	≤ 12.5 mm
Sensing distance tolerance	± 3 mm
Housing design	Small
Light source	LED, RGB ¹⁾
Wave length	640 nm, 525 nm, 470 nm
Light spot size	1.9 mm x 9.4 mm
Light spot direction	Vertical
Adjustment	Teach-in button
Teach-in mode	Teach-in static/dynamic ET: Teach-in dynamic

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

Electronics

Supply voltage	12 V DC 24 V DC ¹⁾
Ripple	$< 5 V_{pp}^{2}$
Current consumption	< 50 mA ³⁾
Switching frequency	1.7 kHz ⁴⁾
Response time	300 μs ⁵⁾

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

 $^{^{2)}\,\}mathrm{May}$ not fall below or exceed 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} = 50 mA. I_{max} is consumption count of all Q_n.

Jitter	150 μs
Switching output	NPN
Switching output (voltage)	NPN: HIGH = approx. $U_V / LOW \le 2 V$
Switching mode	Light/dark switching
Output (channel)	1 color
Output current I _{max.}	< 100 mA ⁶⁾
Input, teach-in (ET)	NPN: Teach: U < 2 V, Run: U = 10 V < U_V or open
Time delay	None
Protection class	III
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Connection type	
	Cable open end, 4-wire, 2 m

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Mechanics

Housing material	ABS
Optics material	PMMA
Weight	Approx. 25 g

Ambient data

Ambient operating temperature	-10 °C +55 °C
Ambient temperature, storage	-20 °C +75 °C
Shock load	According to IEC 60068
Enclosure rating	IP67
UL File No.	NRKH.E348498 & NRKH7.E348498

Connection type/pinouts

Connection type	
	Cable open end, 4-wire, 2 m
Connection type Detail	
Cable material	PVC
Cable diameter	Ø 3.4 mm
Conductor cross section	0.15 mm ²
Pinouts	
BN 1	+ (L+)
WH 2	ET
BU 3	- (M)
BK 4	Q

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³⁾ Without load.

⁴⁾ With light/dark ratio 1:1.

⁵⁾ Signal transit time with resistive load.

 $^{^{6)}}$ At supply voltage > 24 V, I $_{max}$ = 50 mA. I $_{max}$ is consumption count of all Q $_{n}.$

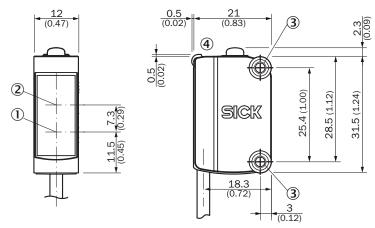
Certificates

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

Classifications

ECLASS 5.0	27270907
ECLASS 5.1.4	27270907
ECLASS 6.0	27270907
ECLASS 6.2	27270907
ECLASS 7.0	27270907
ECLASS 8.0	27270907
ECLASS 8.1	27270907
ECLASS 9.0	27270907
ECLASS 10.0	27270907
ECLASS 11.0	27270907
ECLASS 12.0	27270907
ETIM 5.0	EC001817
ETIM 6.0	EC001817
ETIM 7.0	EC001817
ETIM 8.0	EC001817
UNSPSC 16.0901	39121528

Dimensional drawing



Dimensions in mm (inch)

① Center of optical axis, sender

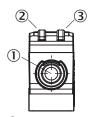
- ② Center of optical axis, receiver
- 3 Mounting holes M3
- (4) display and adjustment elements

Pinouts, see table Technical data: Connection type/pinouts



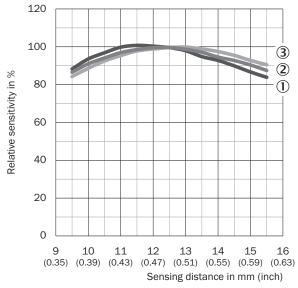
Cable with flying leads, 4-wire, AWG 26, 0.15 mm²

display and adjustment elements



- ① Teach-in button
- ② LED yellow
- 3 LED green

Sensing distance



- ① Red
- ② Green
- 3 blue

Recommended accessories

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

	Brief description	Туре	part no.
Mounting systems			
Web.	 Material: Stainless steel Details: Stainless steel (1.4301) Suitable for: W4S, W4S 	BEF-WN-G6	2062909
connectors and cables			
	 Connection type head A: Male connector, M8, 4-pin, straight, A-coded Description: Unshielded Connection systems: Screw-type terminals Permitted cross-section: 0.14 mm² 0.5 mm² 	STE-0804-G	6037323
	 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.

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