Data sheet

CSM-WP11122P

CSM

COLOR SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	part no.
CSM-WP11122P	1067291

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

Detailed technical data

Features

Housing design	Small
Dimensions (W x H x D)	12 mm x 31.5 mm x 21 mm
Light source	LED, RGB [1]
Light emission	Long side of housing
Light spot size	1.5 mm x 6.5 mm
Light spot direction	Vertical
Wave length	640 nm, 525 nm, 470 nm
Sensing distance	≤ 12.5 mm
Sensing distance tolerance	± 3 mm
Adjustment	Teach-in button
Teach-in mode	Static 1-point teach-in

[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	

[1] Limit values: DC 12 V (–10 %) ... DC 24 V (+20 %). Operation in short-circuit protected network max. 8 A.
[2] May not fall below or exceed U_V tolerances.
[3] Without load.
[4] With light/dark ratio 1:1.
[5] At supply voltage > 24 V, I_{max} = 50 mA. I_{max} is consumption count of all Q_n.

	300 µs
Jitter	150 µs
Switching output	PNP
Switching output (voltage)	PNP: HIGH = U_V ≤ 2 V / LOW approx. 0 V
Switching mode	Light/dark switching
Output (channel)	1 color
Output current $I_{max.}$	< 100 mA [5]
Input, teach-in (ET)	PNP: Teach: U = 10 V ... < V_S, Run: U < 2 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 with M12 male connector, 4-pin, 0.2 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 with M12 male connector, 4-pin, 0.2 m
Connection type Detail	
Cable material	PVC
Cable diameter	Ø 3.4 mm
Conductor cross section	0.15 mm²
Pinouts	
BN 1	+ (L+)
WH 2	ET
BU 3	- (M)
BK 4	Q

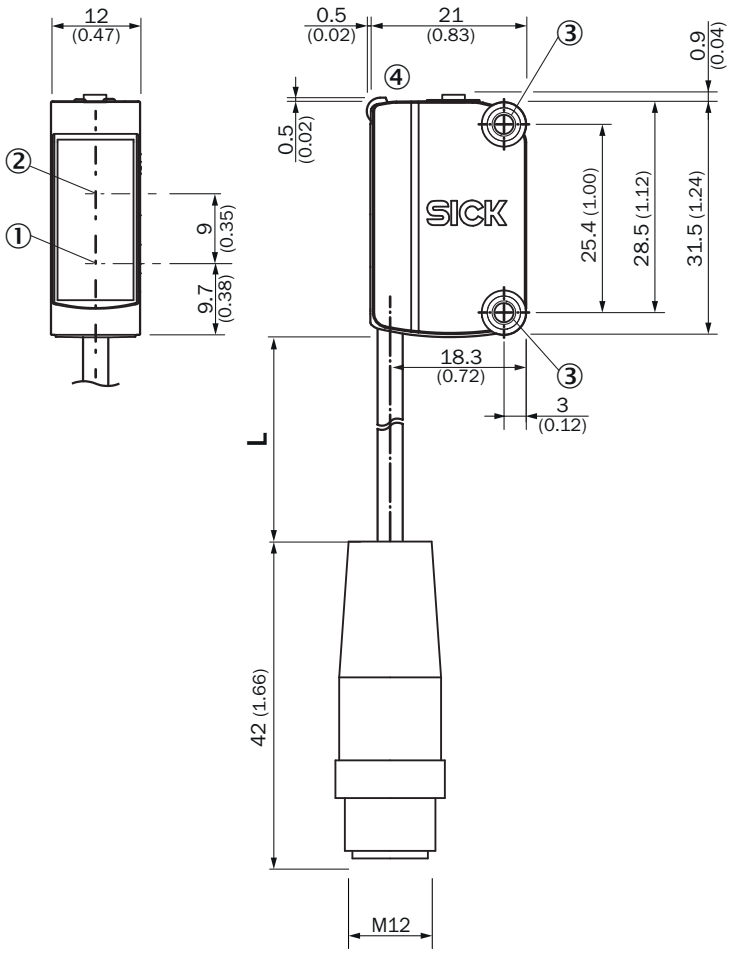
Classifications

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

Certificates

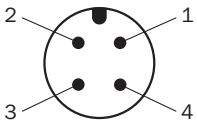
EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
Moroccan declaration of conformity	✓
China RoHS	✓
cULus certificate	✓
Photobiological safety (IEC EN 62471)	✓

Dimensional drawing



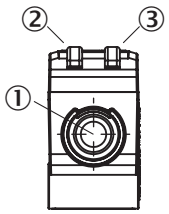
Dimensions in mm (inch)
For length of cable (L), see technical data
① Center of optical axis, sender
② Center of optical axis, receiver
③ Mounting holes M3
④ display and adjustment elements

Pinouts, see table Technical data: Connection type/pinouts



M12 male connector, 4-pin, A-coding

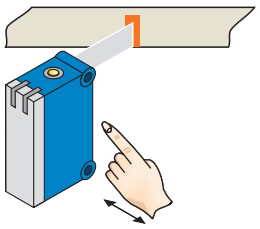
display and adjustment elements



① Teach-in button
② LED yellow
③ LED green

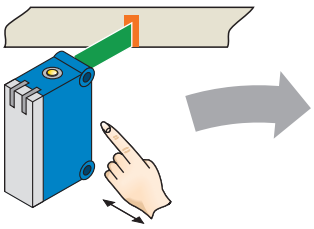
Setting the switching threshold

1. Trigger teach-in

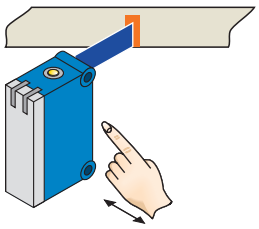


Position object in light field.
Press teach-in button > 1 s.

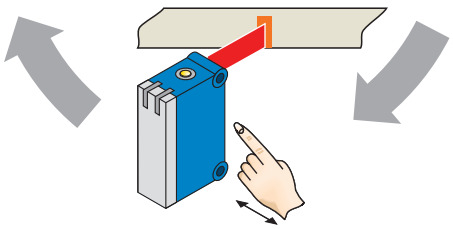
2. Select color tolerance



Press teach-in button when transmitted light is green
= tolerance medium
(standard setting).



Press teach-in button when transmitted light is blue
= tolerance precise.

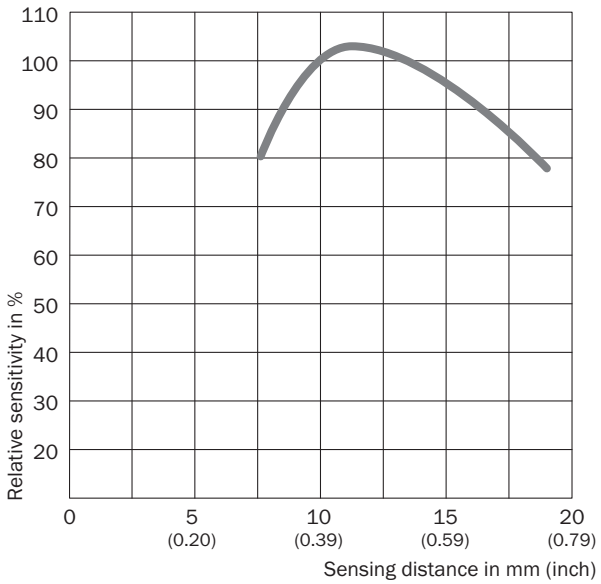


Press teach-in button when transmitted light is red
= tolerance coarse.

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.

Sensing distance



Recommended accessories

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

	Brief description	Type	part no.
Mounting systems			
	• **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, M12, 4-pin, straight, A-coded • **Description:** Unshielded • **Connection systems:** Screw-type terminals • **Permitted cross-section:** ≤ 0.75 mm²	STE-1204-G	6009932
	• **Connection type head A:** Female connector, M12, 4-pin, straight, A-coded • **Connection type head B:** Flying leads • **Signal type:** Sensor/actuator cable • **Cable:** 5 m, 4-wire, PVC • **Description:** Sensor/actuator cable, unshielded • **Application:** Zones with chemicals, Uncontaminated zones	YF2A14-050VB3XLEAX	2096235

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:

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