



Color sensors CSM1

CSM1-P1114



Model Name > CSM1-P1114
Part No. > 1022569



At a glance

- One color can be saved
- 12.5 mm sensing distance
- Switching frequency 1.5 kHz
- Color tolerance (precise, medium, coarse) can be set
- Static object teach-in via control cable or control panel
- Small housing

Your benefits

- Easy integration into existing machines - even in places where space is limited
- Fast and easy setup saves time and costs
- Broad spectrum of color tolerances enables more flexible use



Features

Dimensions (W x H x D):	12 mm x 40 mm x 22 mm
Sensing distance ¹⁾ :	12.5 mm
Sensing distance tolerance:	± 2 mm
Light source ²⁾ :	LED
Type of light:	Visible blue light, Visible green light, Visible red light
Light spot size:	1.5 mm x 6.5 mm
Light spot direction:	Vertical
Housing design (light emission):	Rectangular
Wave length:	470 nm, 525 nm, 640 nm
Teach-in mode:	Static 1-point teach-in

¹⁾ From front edge of lens ²⁾ Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

Ripple ¹⁾ :	< 5 Vpp
Current consumption ²⁾ :	< 35 mA
Switching frequency ³⁾ :	1.5 kHz
Response time ⁴⁾ :	500 µs
Output type:	PNP: HIGH = VS- ≤ 2 V / LOW approx. 0 V
Switching mode:	PNP
Output (channel):	1 color
Output current I _{max.} :	< 100 mA
Input, teach-in (ET):	PNP:, Run: U < 2 V, Teach: U = 10 V ... < U _V

Connection type:	Connector M12, 4-pin
Protection class ⁵⁾ :	II
Circuit protection:	VS connections reverse-polarity protected Output Q short-circuit protected Interference suppression
Enclosure rating:	IP 67
Weight:	11 g
Housing material:	ABS, Plastic
Supply voltage:	12 V DC ... 24 V DC ⁶⁾
Fieldbus interface:	-

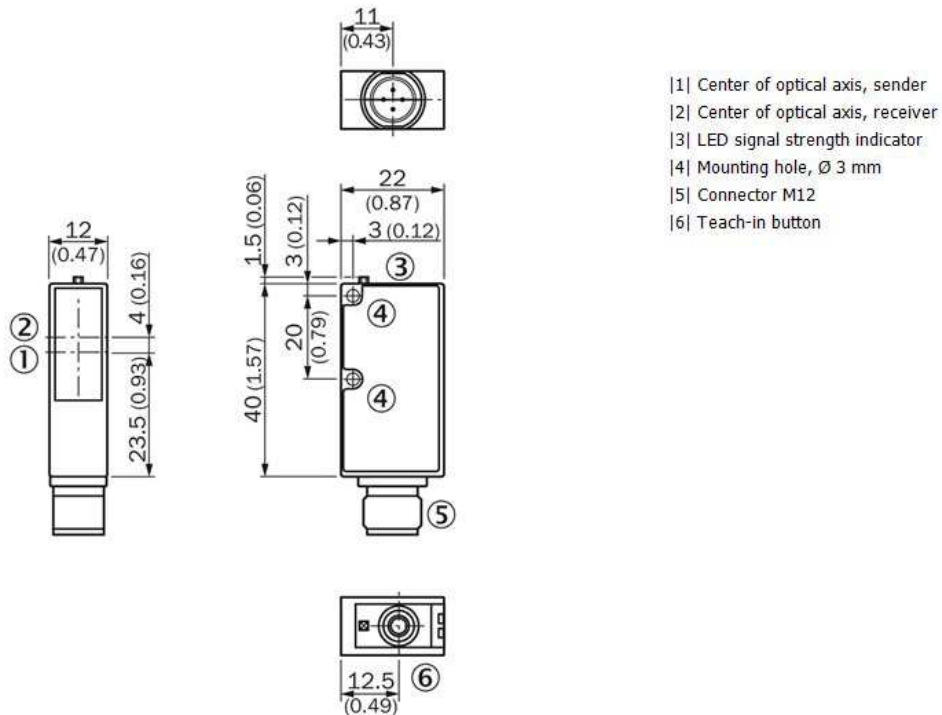
1) May not exceed or fall short of V_S tolerances 2) Without load 3) With light/dark ratio 1:1 4) Signal transit time with resistive load 5) Reference voltage DC 50 V 6)

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

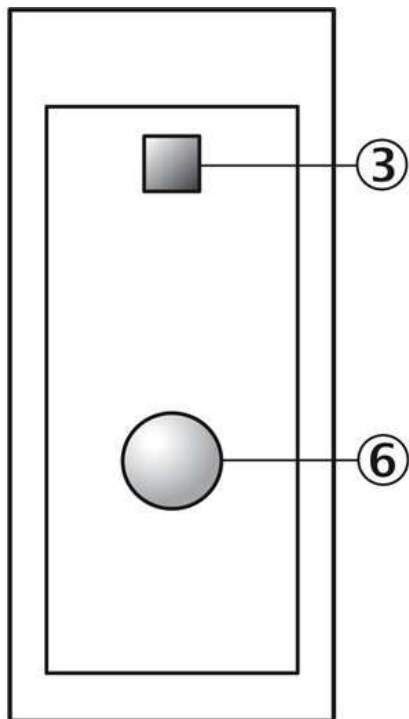
Ambient data

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

Dimensional drawing

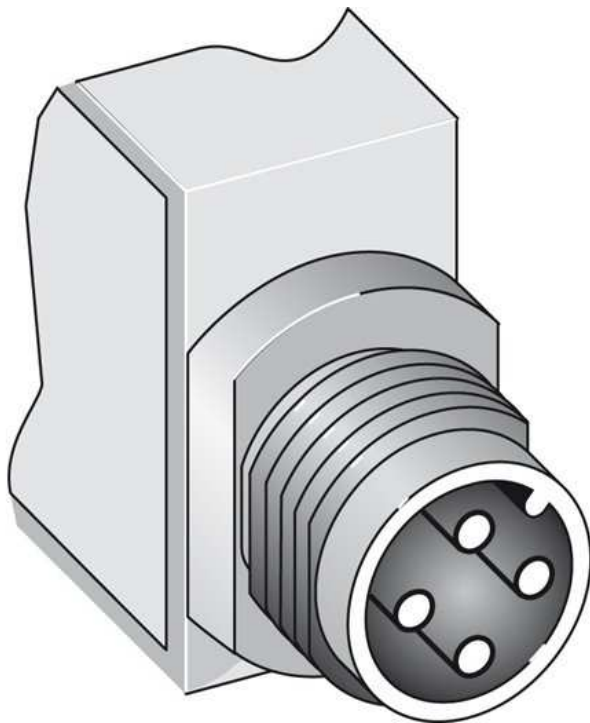


Adjustments

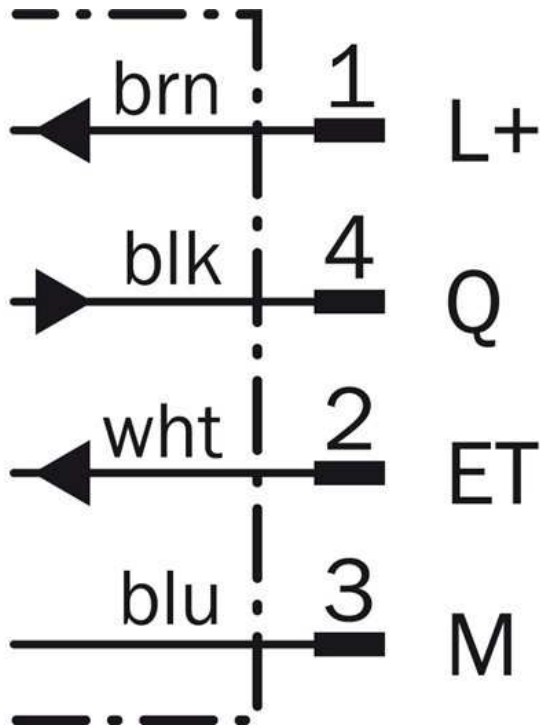


- |3| LED signal strength indicator
- |6| Teach-in button

Connection type

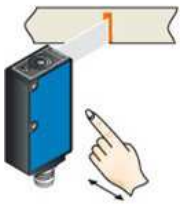


Connection diagram



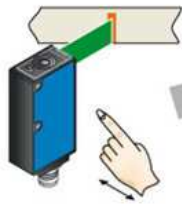
Setting the switching threshold

1. Trigger teach-in

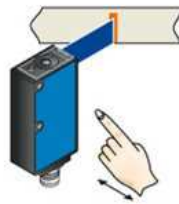


Position object in light field.
Press teach-in button > 1 s.

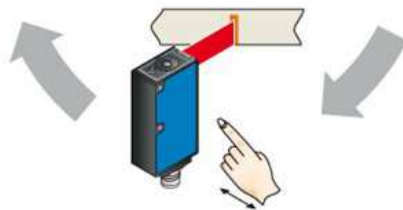
2. Select color tolerance



Press teach-in button > 1 s
when transmitted light is green
= **tolerance medium** (standard
setting).



Press teach-in button > 1 s
when transmitted light is blue
= **tolerance precise.**



Press teach-in button > 1 s
when transmitted light is red
= **tolerance coarse.**

Australia

Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail info@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com