



Fotoprzełączniki W12-2 Laser, Fotoprzełącznik barierowy

WS/WE12L-2P410S02



Nazwa modelu > [WS/WE12L-2P410S02](#)

Numer części > [1028481](#)



Produkt może różnić się od ilustracji

At a glance

- Laser protection class 1 or 2
- Large sensing range and high levels of operating reserve
- Rugged sensors for industrial use
- Highly visible laser light spot for varying object detection
- Rugged die-cast zinc housing with optional Teflon® coating
- Versatile mounting options due to dovetail mounting - mounting holes and oblong holes
- Highly visible status LEDs
- Adjustable sensing range

Your benefits

High immunity to optical interference provides reliable object detection, large sensing ranges and high reserve levels

Highly visible laser light spot enables quick sensor alignment, excellent switching characteristics and high-quality detection

Rugged metal housing (optional Teflon® coating available) requires less maintenance due to its resistance to high-pressure cleaning environments

Highly visible status LEDs simplify commissioning and reduce installation time

Laser protection class 1 or 2 for eye safety

Easy installation using SICK accessories



Cechy

Zasada działania czujnika/Sposób detekcji:	Fotoprzełącznik barierowy
Wymiary (Szer. x Wys. x Głęb.):	15 mm x 49 mm x 41,5 mm
Housing design (light emission):	Prostopadłościenna
Maks. strefa działania:	0 m ... 80 m
Rodzaj światła:	Widzialne światło czerwone
Nadajnik światła:	Laser ¹⁾
Klasa lasera:	II
Długość fali:	650 nm
Średnica plamki świetlnej (odległość):	Ø 0,5 mm (2 m)

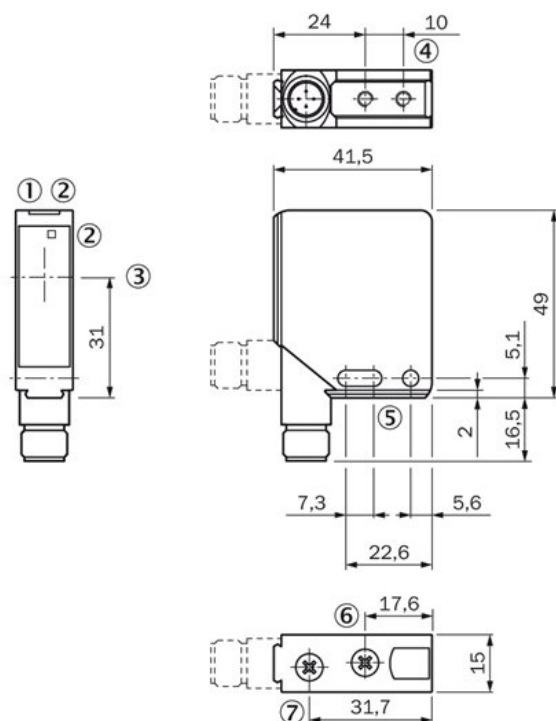
¹⁾ Average service life 50,000 h at T_a = +25 °C

Mechanika/elektronika

Napięcie zasilania:	10 V DC ... 30 V DC ¹⁾
Tętnienia resztkowe:	$\leq 5 \text{ Vss}$ ²⁾
Pobór prądu, nadajnik:	$\leq 45 \text{ mA}$ ³⁾
Pobór prądu, odbiornik:	$\leq 15 \text{ mA}$ ⁴⁾
Wyjście przełączające:	PNP
Napięcie sygnału PNP HIGH/LOW:	$U_v - < 2,9 \text{ V}, U_v \text{ V}/0 \text{ V} \leq 1,5 \text{ V}$
Napięcie sygnału NPN HIGH/LOW:	$U_v - < 2,9 \text{ V}, U_v \text{ V}/0 \text{ V} \leq 1,5 \text{ V}$
Output current I _{max} :	100 mA
Czas reakcji:	$\leq 200 \mu\text{s}$ ⁵⁾
Switching frequency:	2.500 Hz ⁶⁾
Typ połączenia:	Connector M12, 4-pin
Układ zabezpieczenia:::	A, C, D ⁷⁾ ⁸⁾ ⁹⁾
Klasa ochrony:	II
Ciężar:	260 g
Tworzywo, obudowa:	Metal
Rodzaj zabezpieczenia:	IP 67 IP 69K
Funkcje specjalne:	Vibration-resistant design
Ambient operating temperature:	-10 °C ... 50 °C
Ambient storage temperature:	-25 °C ... 75 °C
UL File-No.:	UL No. NRKH.E181493, CDRH-Konform (0312012-00)
Part number of individual components:	Receiver, WE12L-2P430, 2021726, Sender, WS12L-2D410S02, 2034794

¹⁾ Limit values ²⁾ May not exceed or fall short of V_S ^{3) 4)} Without load ⁵⁾ Signal transit time with resistive load ⁶⁾ With light/dark ratio 1:1 ⁷⁾ A = V_S connections
reverse-polarity protected ⁸⁾ C = interference suppression ⁹⁾ D = outputs overcurrent and short-circuit protected

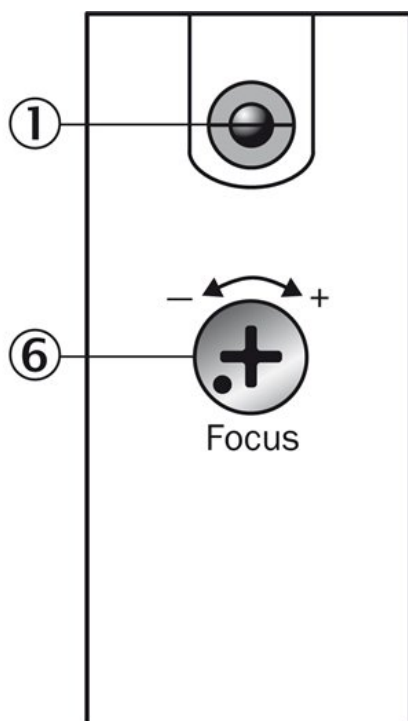
Dimensional drawing



- |1| Operating indicator, green
- |2| LED reception indicator, yellow
- |3| Center of optical axis

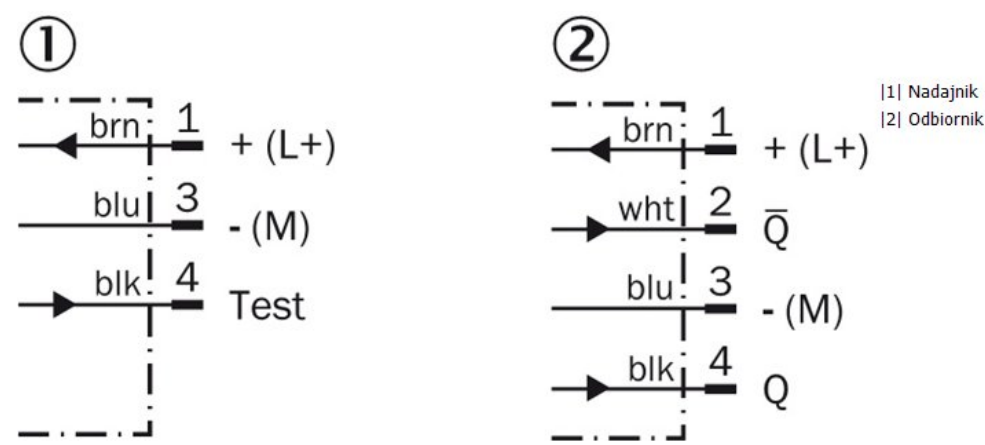
- |5| Mounting hole, $\varnothing$ 4.2 mm
- |6| Focal adjustment
- |7| Sensitivity adjustment

Adjustments possible



- |1| Operating indicator (WS above only)
- |6| Focal adjustment (WS)

Connection diagram



②

brn

1

+

(L+)

wht

2

$\bar{Q}$

blu

3

-

(M)

blk

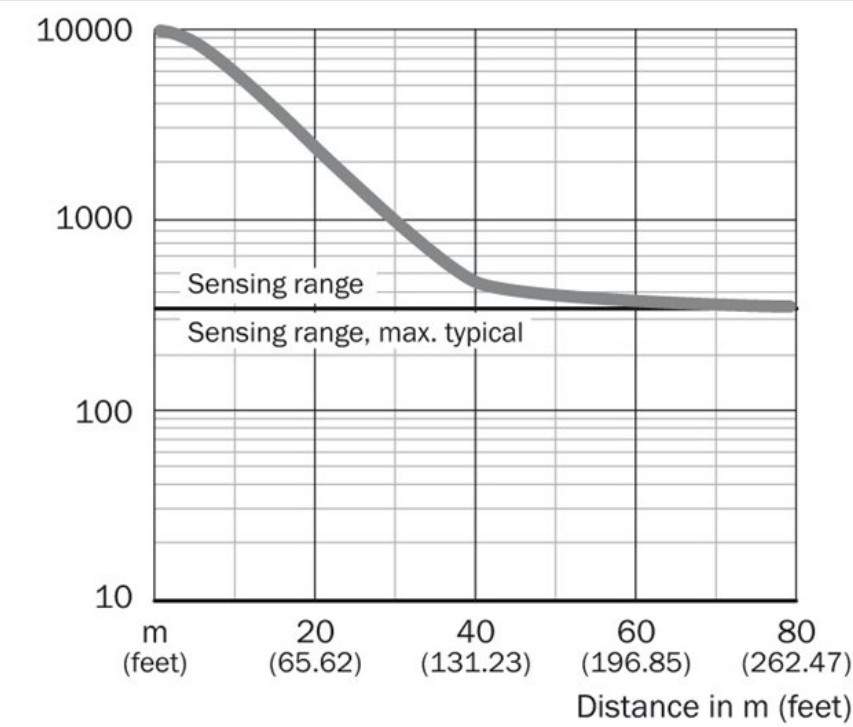
4

Q

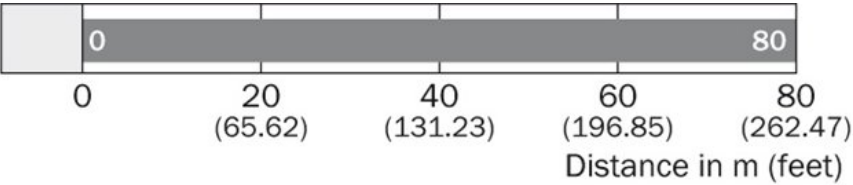
[1] Nadajnik

[2] Odbiornik

Characteristic curve

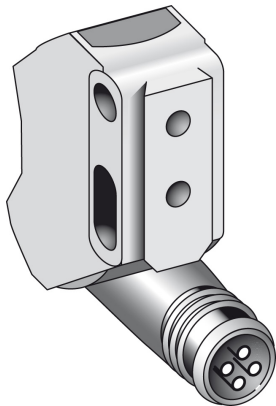


Sensing range diagram



■ Sensing range/sensing range typ. max.

Connection type



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