



Photoelectric sensors W9 Laser, Through-beam photoelectric sensor

WS/WE9L-P330



Model Name > [WS/WE9L-P330](#)
Part No. > [1023993](#)



Illustration may differ

At a glance

- Advanced laser technology with great performance
- Constant laser power and compliance with laser class 2
- Through-beam photoelectric sensor with teach-in pushbutton for long sensing ranges up to 50 m
- UL, CE, CDRH approval

Your benefits

- High reliability with maximum eye protection due to laser control (laser class 2)
- Small laser light spot reliably detects the smallest objects
- Laser is approved for worldwide usage
- Designed for quick and easy installation with SICK accessories

The product has been discontinued. Please follow the "replacement product" link for information about alternative products.



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	12 mm x 40 mm x 22 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 50 m
Type of light:	Visible red light
Light source:	Laser ¹⁾
Laser class:	2
Adjustment:	Teach-in button
Light spot size (distance):	Ø 1 mm (500 mm)

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

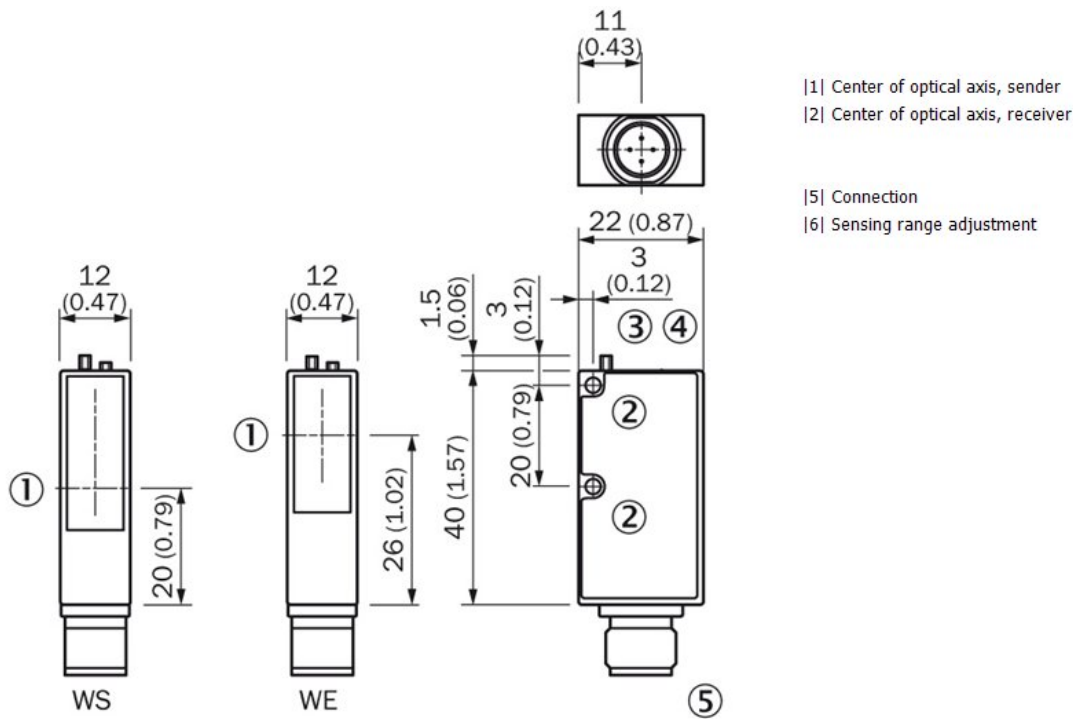
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp
Power consumption, sender:	35 mA
Power consumption, receiver:	25 mA
Output type:	PNP
Switching mode:	Light/dark switching

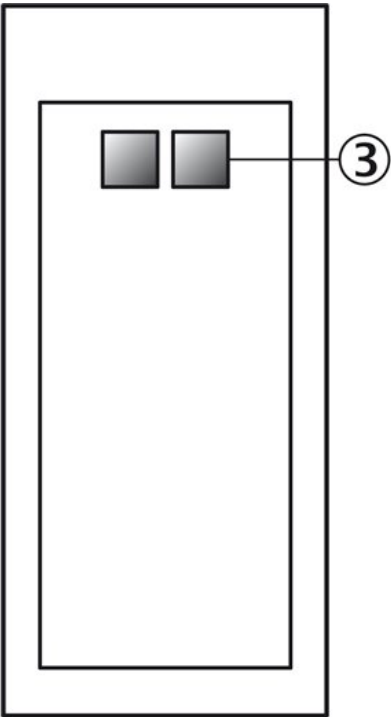
Signal voltage PNP HIGH/LOW:	Approx. VS - 2.0 V/0 V
Output current I _{max} :	< 100 mA
Response time:	< 0.6 ms ²⁾
Switching frequency:	± 1,000 Hz ³⁾
Connection type:	Connector M8, 4-pin
Circuit protection:::	A, B, C ^{4) 5) 6)}
Protection class:	III ⁷⁾
Weight:	20 g
Housing material:	ABS, Plastic
Enclosure rating:	IP 67
Ambient operating temperature:	-10 °C ... 50 °C
Ambient storage temperature:	-25 °C ... 70 °C
Part number of individual components:	Receiver, WE9L-P330, 2029278, Sender, WS9L-D330, 2029277

1) Limit values 2) Signal transit time with resistive load 3) 4) $A = V_S$ connections reverse-polarity protected 5) B = inputs and output reverse-polarity protected 6) C = interference suppression 7) Reference voltage 50 V DC

Dimensional drawing



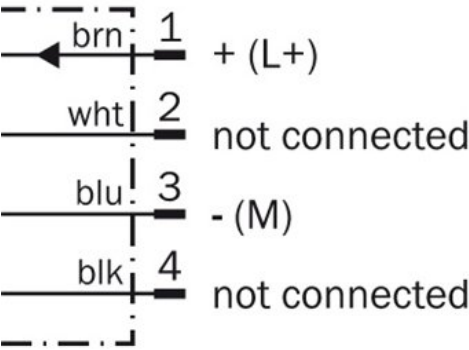
Adjustments possible



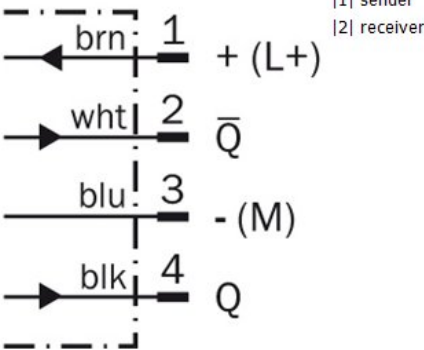
[3] Power indicator green, WS in operation

Connection diagram

①

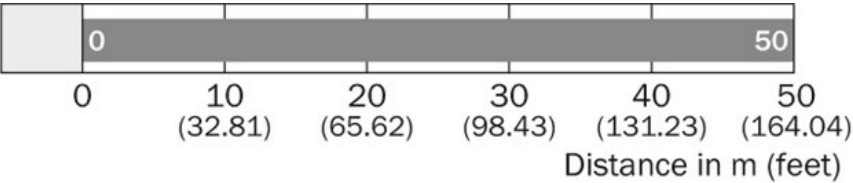


②



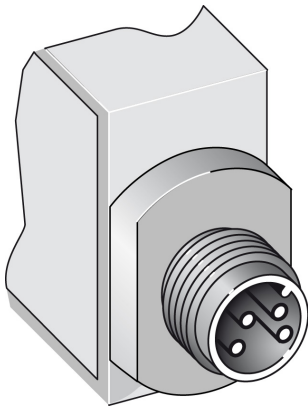
[1] sender
[2] receiver

Sensing range diagram

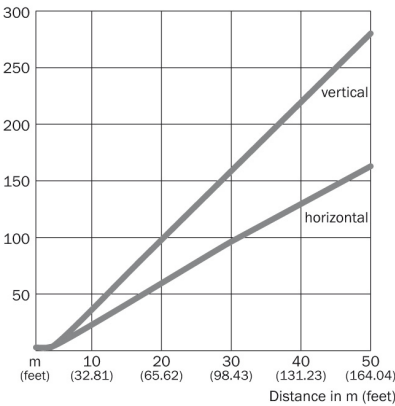


■ Sensing range/sensing range typ. max.

Connection type



Light spot size



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