



Photoelectric sensors W2S-2, Through-beam photoelectric sensor

WSE2S-2P3030S02



Type > [WSE2S-2P3030S02](#)
Part No. > [1069003](#)



Illustration may differ

At a glance

- Through-beam photoelectric sensor in ultra-compact housing
- Sensing ranges of up to 2.5 m
- Response times of 0.5 ms
- Established and proven housing design

Your benefits

- Application flexibility when mounting in confined spaces due to a 45° cable outlet
- Safe use and high reliability due to immunity to optical interference
- Reliable universal object detection, large sensing ranges and operating reserves thanks to superior SIRIC® chip technology



Features

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	7.7 mm x 21.8 mm x 13.5 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 2.5 m
Sensing range:	0 m ... 2 m
Type of light:	Visible red light
Light source:	PinPoint LED ¹⁾
Wave length:	640 nm
Light spot size (distance):	X Ø 65 mm (1,500 mm)

¹⁾ Average service life: 100,000 h at T_U = +25 °C

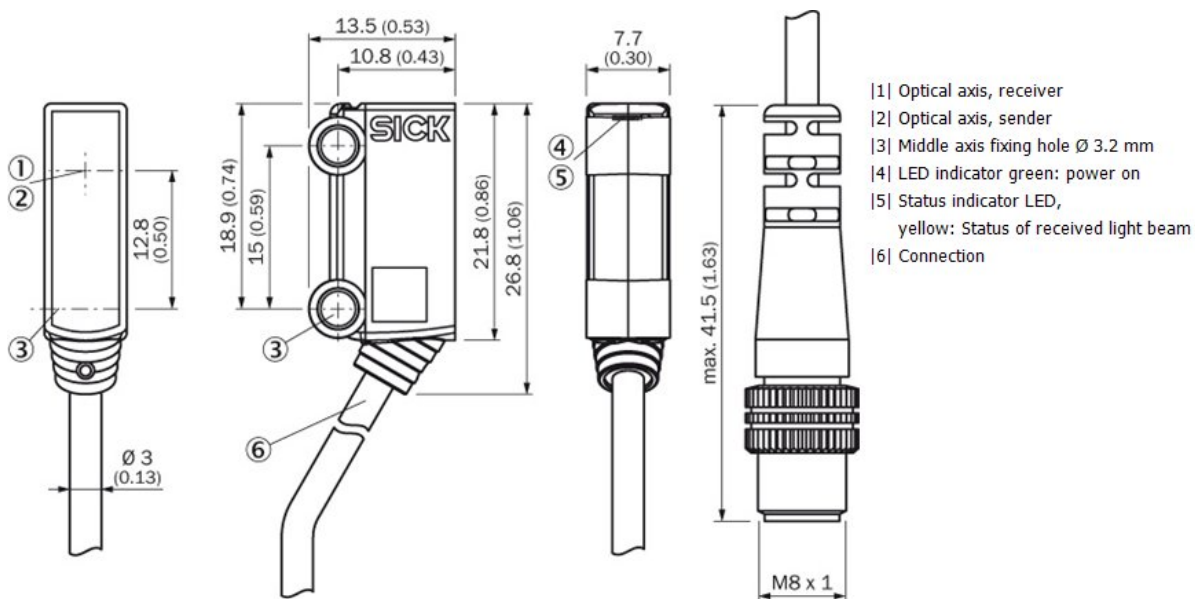
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Current consumption:	≤ 20 mA ³⁾
Output type:	PNP
Switching mode:	Light switching
Output current I _{max} :	< 50 mA
Response time:	< 0.4 ms ⁴⁾
Switching frequency:	1,200 Hz ⁵⁾
Connection type:	Cable with connector M8, 3-pin, 700 mm ⁶⁾

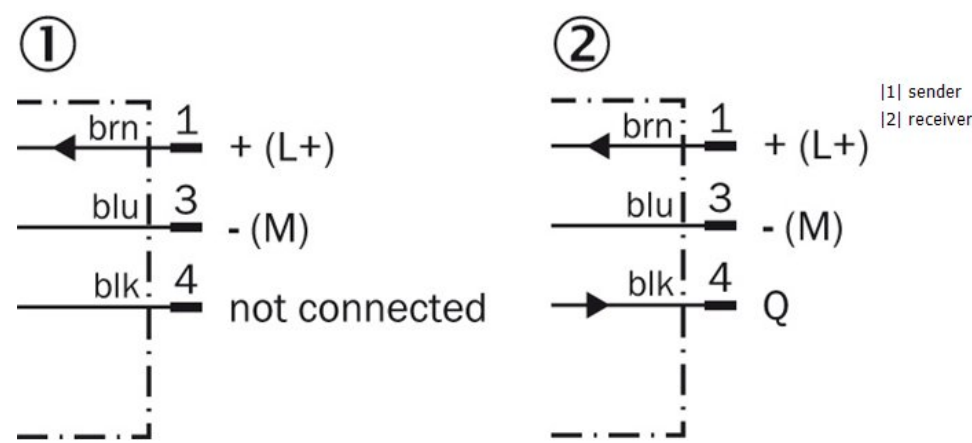
Cable material:	PVC
Cable diameter:	Ø 3 mm
Circuit protection:::	A, B, D ^{7) 8) 9)}
Special device:	✓
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... +50 °C
Ambient storage temperature:	-40 °C ... +75 °C
UL File No.:	NRKH.E181493
Housing material:	ABS/PC, Plastic

¹⁾ Limit values ²⁾ May not exceed or fall below U_V tolerances ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ Do not bend below 0 °C
⁷⁾ A = V_S connections reverse-polarity protected ⁸⁾ B = output reverse-polarity protected ⁹⁾ D = outputs overcurrent and short-circuit protected

Dimensional drawing



Connection diagram



②

brn

1

+

(L+)

blu

3

-

(M)

blk

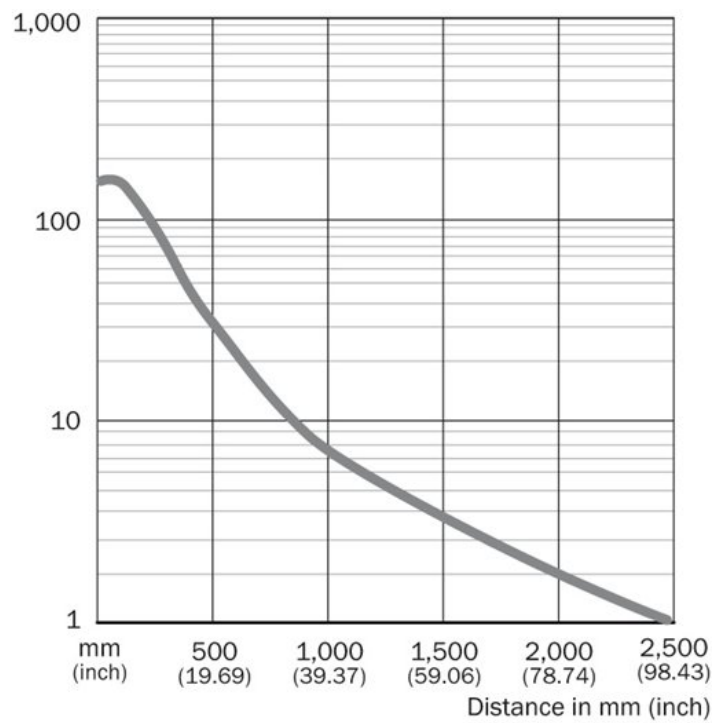
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[1] sender

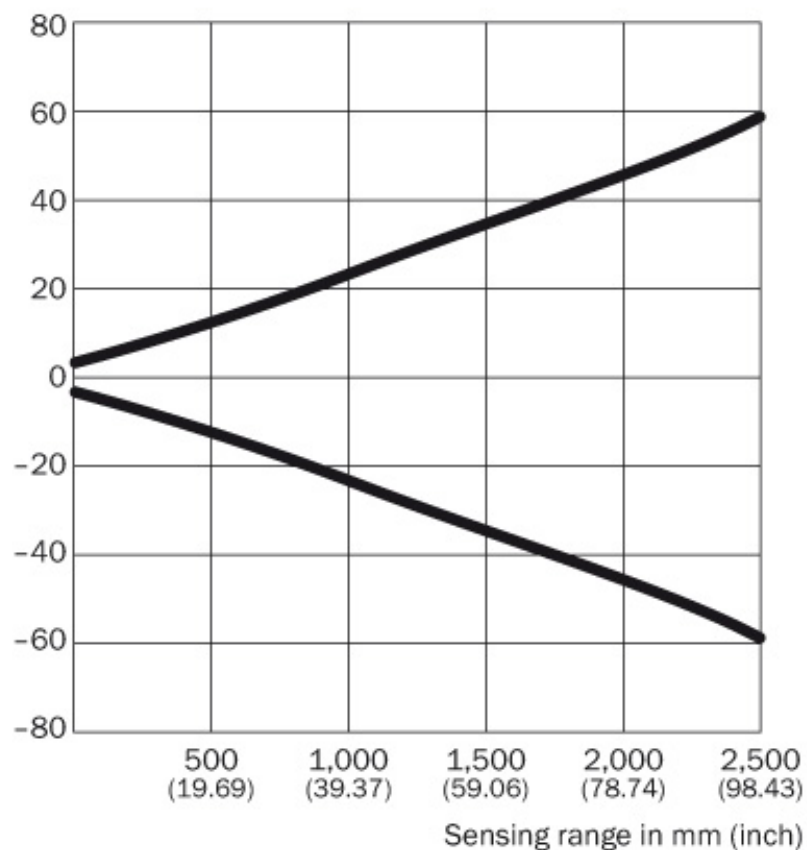
[2] receiver

Characteristic curve



Light spot size

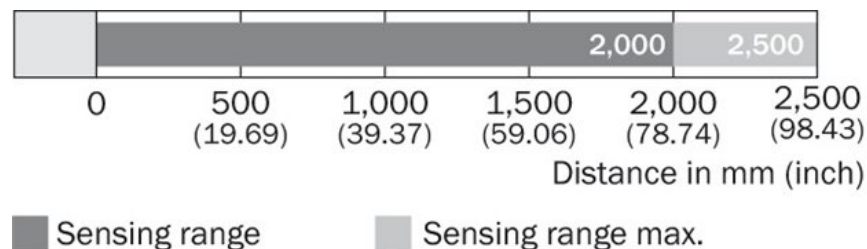
Spot diameter in mm (inch)



Dimensions in mm (inch)

Sensing range	Spot diameter
10 (0.39)	4.0 (0.16)
250 (9.84)	13.0 (0.51)
500 (19.69)	23.0 (0.91)
1,000 (39.37)	45.0 (1.77)
1,500 (59.06)	65.0 (2.56)
2,500 (98.43)	116.0 (4.57)

Sensing range diagram



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