



## Photoelectric sensors W2S-2, Through-beam photoelectric sensor

WSE2S-2F3030S01



**Model Name** > [WSE2S-2F3030S01](#)  
**Part No.** > [1068155](#)



*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 <sup>1)</sup>
Wave length:	640 nm
Light spot size (distance):	Ø 65 mm (1,500 mm)

<sup>1)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

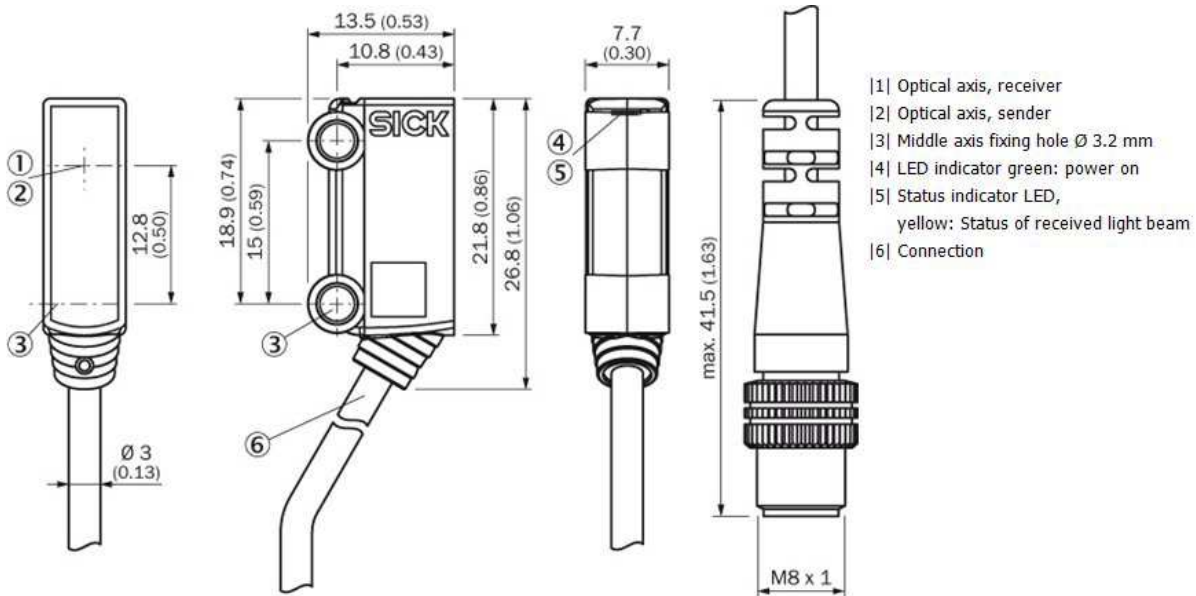
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Residual ripple:	≤ 5 V <sub>pp</sub> <sup>2)</sup>
Power consumption:	≤ 20 mA <sup>3)</sup>
Output type:	PNP
Switching mode:	Dark switching
Output current I <sub>max</sub> .:	< 50 mA
Response time:	< 0.4 ms <sup>4)</sup>
Switching frequency:	1,200 Hz <sup>5)</sup>
Electrical connection:	Cable with connector M8, 3-pin, 700 mm <sup>6)</sup>

Cable material:	PVC
Cable diameter:	Ø 3 mm
Circuit protection:::	A, B, D <sup>7) 8) 9)</sup>
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

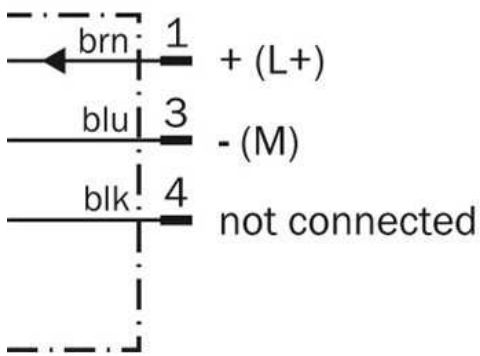
1) Limit values 2) May not exceed or fall short of  $V_S$  tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A =  $V_S$  connections reverse-polarity protected 8) B = output reverse-polarity protected 9) D = outputs overcurrent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

### Dimensional drawing

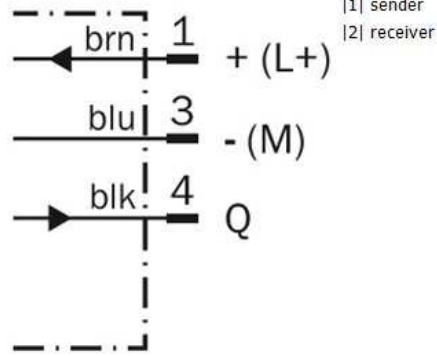


Connection diagram

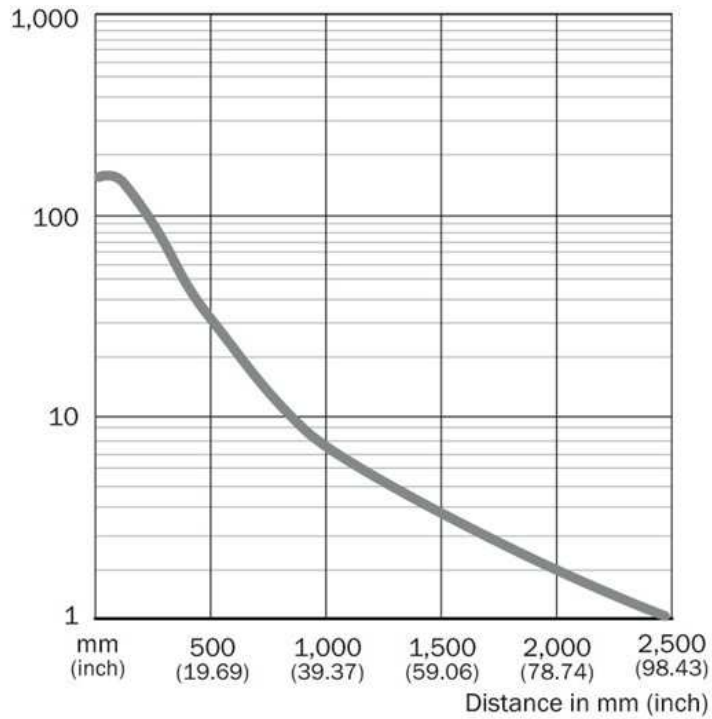
①



②

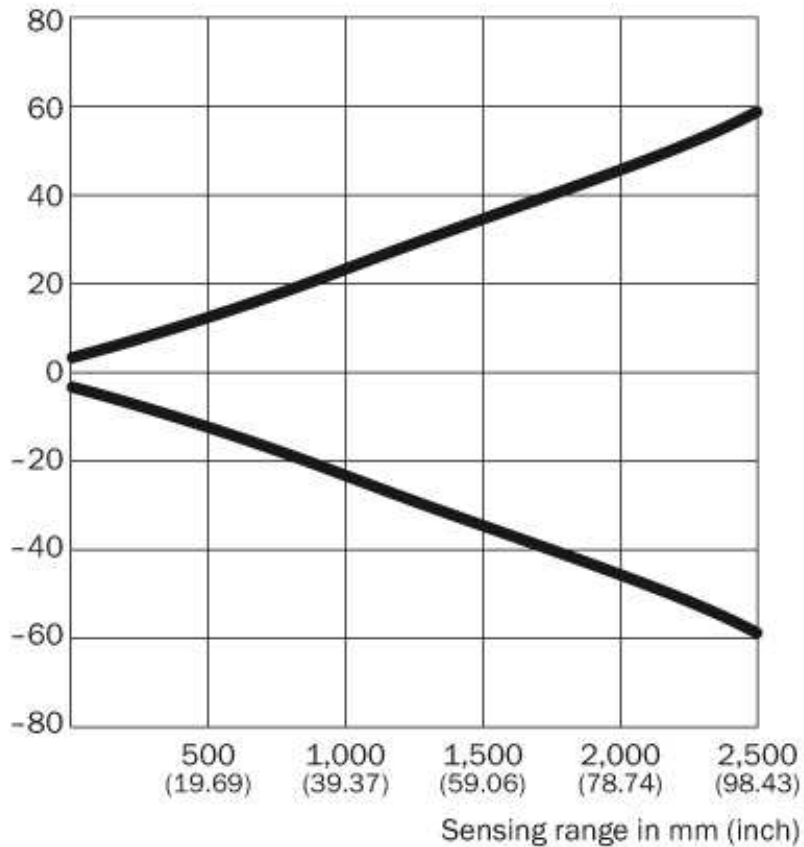


Characteristic curve



## Light spot size

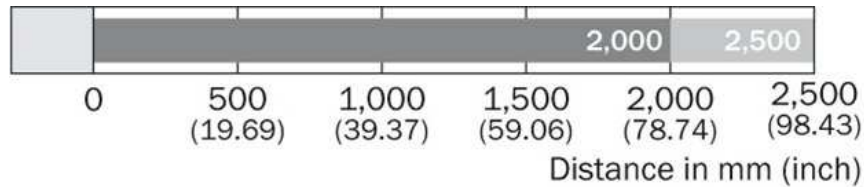
Spot diameter in mm (inch)



## Dimensions in mm (inch)

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

## Sensing range diagram



■ Sensing range      ■ Sensing range max.

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