



Photoelectric sensors  
W4-3, Through-beam photoelectric sensor

WSE4-3P3131



**Model Name** > [WSE4-3P3131](#)  
**Part No.** > [1029898](#)



*Illustration may differ*

**At a glance**

- Sensing range from 0 - 4 m
- PinPoint LED technology for highly visible, brilliant light spot
- Rugged plastic housing with M3 metal inserts

**Your benefits**

- The PinPoint LED's sharply defined, intense light spot makes alignment quick and easy
- Low-cost machine integration due to small dimensions that enable mounting in areas with space restrictions
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life



**Features**

Sensor/detection principle:	Through-beam photoelectric sensor
Dimensions (W x H x D):	16 mm x 39.5 mm x 12 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 4 m
Sensing range:	0 m ... 3.5 m
Type of light:	Visible red light
Light source:	PinPoint LED <sup>1)</sup>
Wave length:	650 nm
Adjustment:	Potentiometer, 5-turn
Light spot size (distance):	Ø 210 mm (2 m)

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

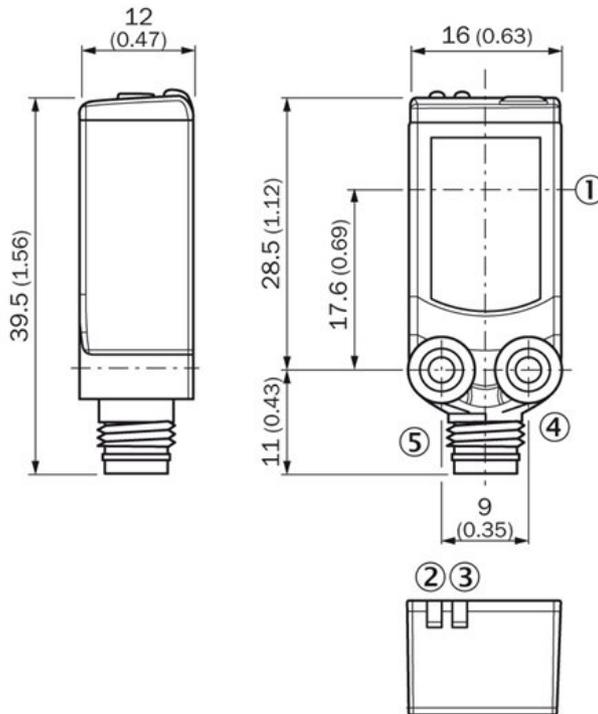
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Power consumption:	≤ 20 mA <sup>2) 3)</sup>
Output type:	PNP
Switching mode:	Light switching
Output current I <sub>max.</sub> :	≤ 100 mA <sup>4)</sup>
Response time:	< 0.5 ms <sup>4)</sup>
Switching frequency:	1,000 Hz <sup>5)</sup>
Connection type:	Cable with connector M8, 3-pin, 100 mm <sup>6)</sup>
Cable material:	PVC

Conductor cross-section:	0.14 mm <sup>2</sup>
Cable diameter:	3.4 mm
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>
Protection class:	III
Weight:	60 g
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67 IP 66
Test input sender off:	TE to 0 V
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
Part number of individual components:	Receiver, WE4-3F3131, 2041470, Sender, WS4-3D3130S02, 2041469
UL File No.:	NRKH.E181493 & NRKH7.E181493

1) Limit values 2) Sender 3) Receiver 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A = V<sub>S</sub> connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit protected

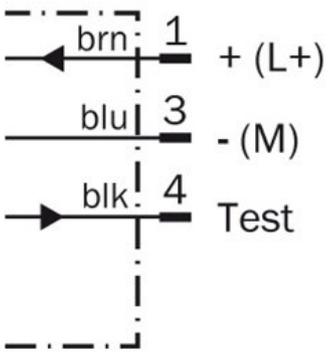
## Dimensional drawing



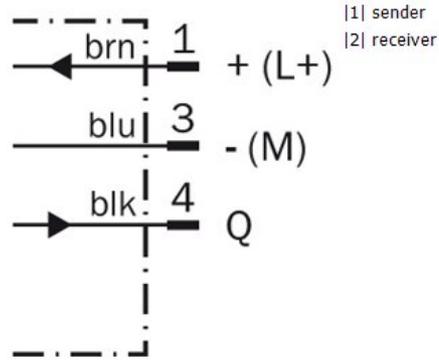
- [1] Center of optical axis
- [2] LED indicator orange: status of received light beam
- [3] Status indicator LED green: power on
- [4] Threaded mounting hole M3
- [5] Connection

Connection diagram

①

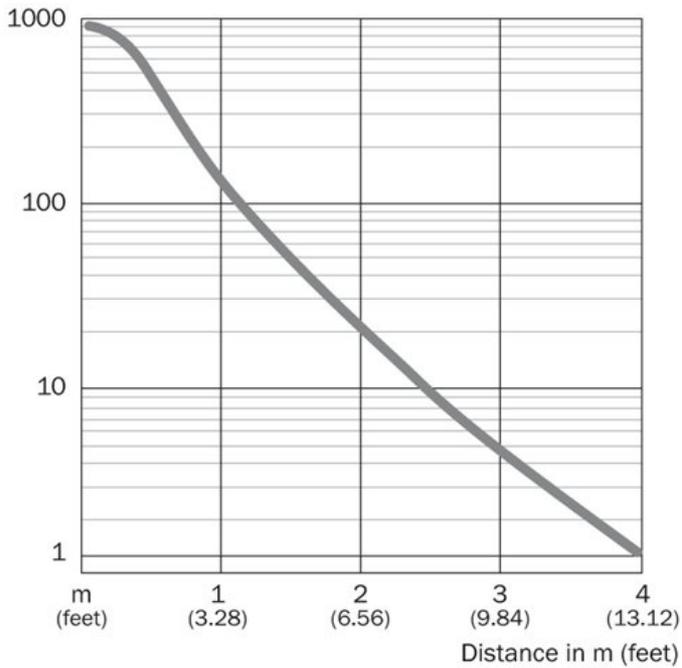


②



Characteristic curve

Operating reserve



### Sensing range diagram

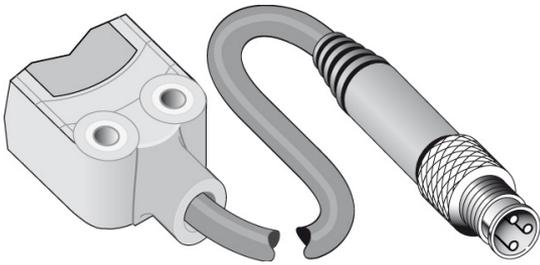
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■ Sensing range typ. max    ■ Sensing range

### Connection type

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