



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 ¹⁾
Wave length:	650 nm
Adjustment:	Potentiometer, 5 turns
Light spot size (distance):	Ø 210 mm (2 m)

¹⁾ Average service life of 100,000 h at T_A = +25 °C

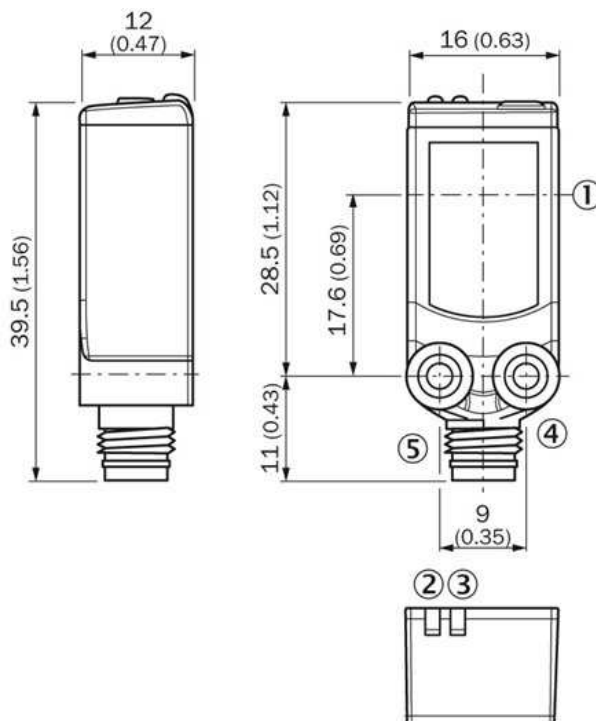
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple::	< 5 Vpp ^{2) 3)}
Power consumption::	≤ 20 mA ^{4) 5)}
Output type:	PNP
Switching mode:	Light switching
Output current I _{max} ::	≤ 100 mA ⁶⁾
Response time:	< 0.5 ms ⁶⁾
Switching frequency:	1,000 Hz ⁷⁾
Connection type:	Cable with connector M8, 3-pin, 100 mm ⁸⁾

Cable material:	PVC
Conductor cross-section:	0.14 mm ²
Cable diameter:	3.4 mm
Circuit protection:::	A, C, D ⁹⁾ ¹⁰⁾ ¹¹⁾
Protection class:	III
Weight:	60 g
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
Housing material:	ABS, Plastic

1) Limit values 2) 3) May not exceed or fall short of V_S tolerances 4) Sender 5) Receiver 6) Signal transit time with resistive load 7) With light/dark ratio 1:1 8) Do not bend below 0 °C 9) A = V_S connections reverse-polarity protected 10) C = interference suppression 11) D = outputs overcurrent and short-circuit protected

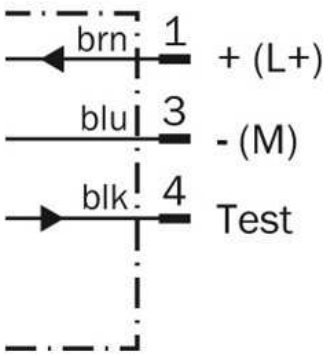
Dimensional drawing



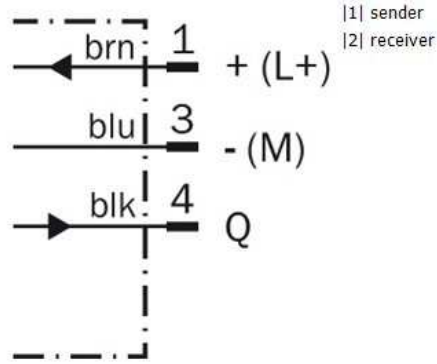
- |1| Center of optical axis
- |2| LED indicator orange: status of received light beam
- |3| Status indicator LED green: supply voltage on
- |4| Threaded mounting hole M3
- |5| Connection

Connection diagram

①

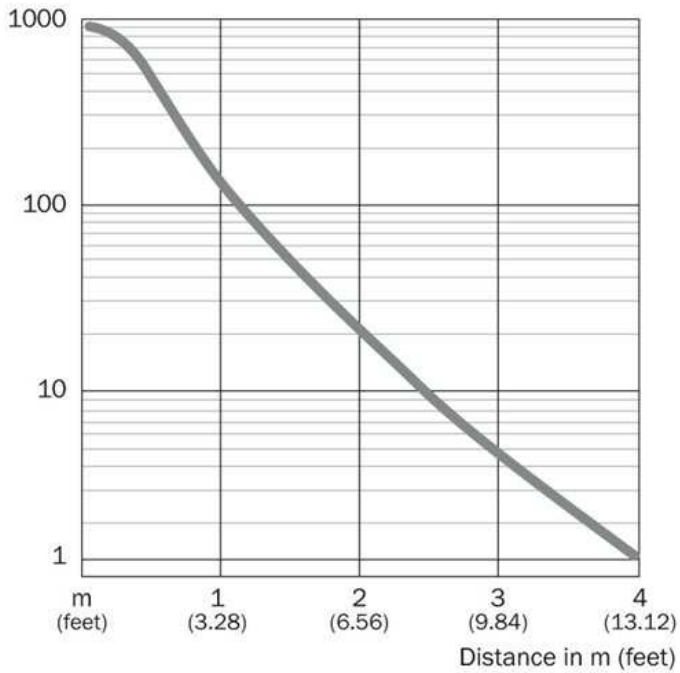


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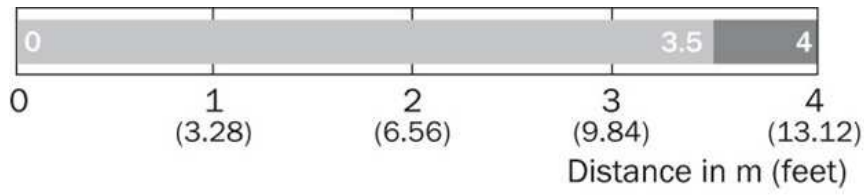


Characteristic curve

Operating reserve



Sensing range diagram



■ Sensing range typ. max ■ Sensing range

Connection type



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