

ONLINE DATA SHEET
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Photoelectric sensors
W8G, Photoelectric retro-reflective sensor, autocollimation

WL8G-P2131



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Model Name > WL8G-P2131
Part No. > 6033186



Illustration may differ

At a glance

- Autocollimation
- Standard miniature housing with M3 threaded mounting holes
- Light/dark switching selectable via rotary switch
- Adjustable sensing range
- All necessary accessories (BEF-W100-A and P250) are included with delivery

Your benefits

- Reliable object detection of transparent objects even at the shortest distances (no blind spot) or through narrow gaps
- Highly visible light spot makes alignment quick and easy
- Reliable detection of all materials, including small and/or transparent objects, min. attenuation 15 %
- All necessary accessories (bracket and reflector) are included with delivery, reducing installation and procurement costs
- M3 mounting hole provides quick installation

Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
Dimensions (W x H x D):	11 mm x 31 mm x 20 mm
Housing design (light emission):	Rectangular, Slim
Sensing range max.:	0 m ... 3 m [1]
Sensing range:	0 ... 1.7 m [2]
Type of light:	Visible red light
Light source:	LED [3]
Wave length:	650 nm
Alarm output:	-
Focus adjustable:	-
Adjustment:	Potentiometer, 270 °
Light spot size (distance):	Ø 70 mm (2 m)

[1] [2] PL80A [3] Average service life of 100,000 h at T_A = +25 °C

Mechanics/electronics

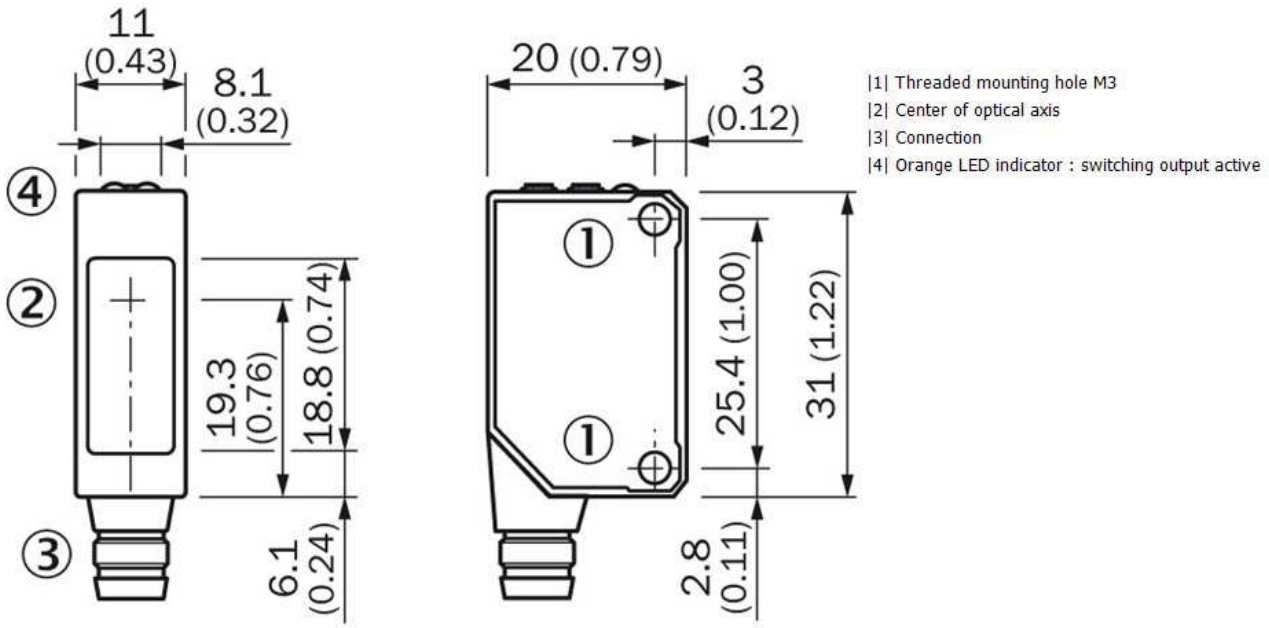
Supply voltage:	10 V DC ... 30 V DC [1]
Residual ripple:	± 10 % [2]
Power consumption:	≤ 30 mA [3]
Output type:	PNP
Switching mode:	Light/dark switching

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Output characteristic:	Open collector
Switching mode selector:	Manually selectable
Signal voltage PNP HIGH/LOW:	Approx. VS - 1.8 V/0 V
Output current Imax.:	100
Response time:	≤ 0.5 ms [4]
Switching frequency:	1,000 [5]
Attenuation along light beam:	≤ 20 %
Electrical connection:	Connector M8, 3-pin
Circuit protection:::	A, B, D [6] [7] [8]
Weight:	10 g
Polarisation filter:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67
Items supplied:	Stainless steel mounting bracket (1.4301/304) BEF-W100-A, Reflector P250F
Special feature:	For transparent objects
Ambient temperature operation:	-25 °C ... 55 °C
Ambient storage temperature:	-40 °C ... 70 °C

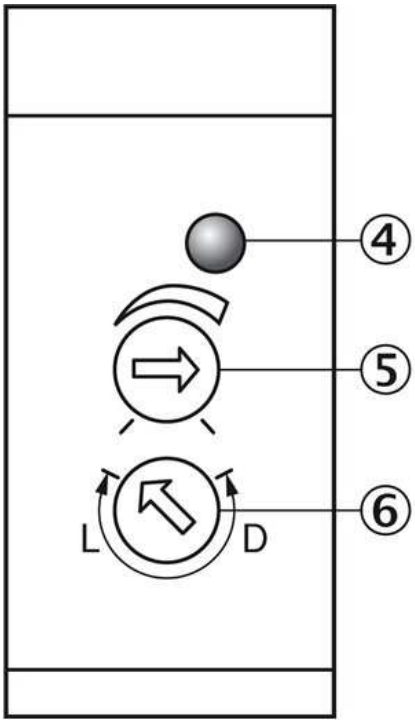
[1] Limit values, operation in short-circuit protected network max. 8 A [2] May not exceed or fall short of V_S tolerances [3] Without load [4] Signal transit time with resistive load [5] With light/dark ratio 1:1 [6] A = V_S connections reverse-polarity protected [7] B = inputs and output reverse-polarity protected [8] D = outputs overcurrent and short-circuit protected

Dimensional drawing



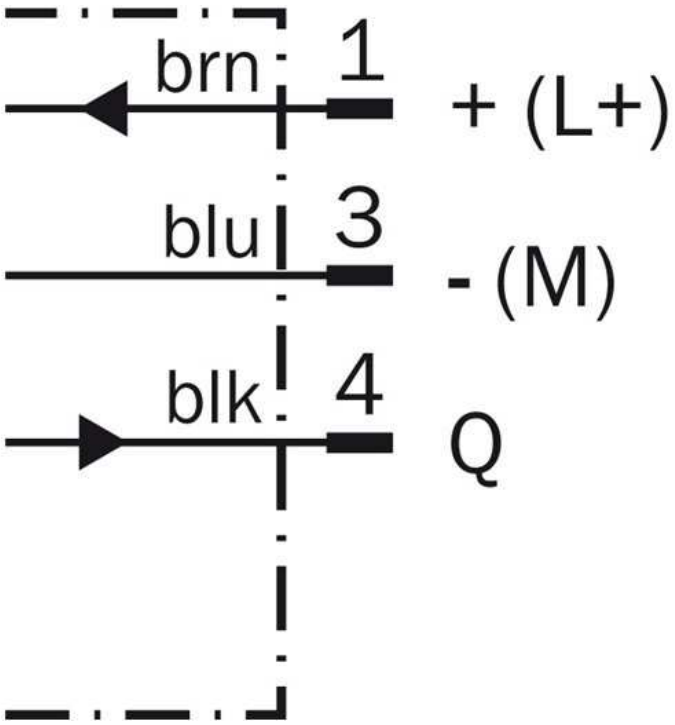
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Adjustments possible



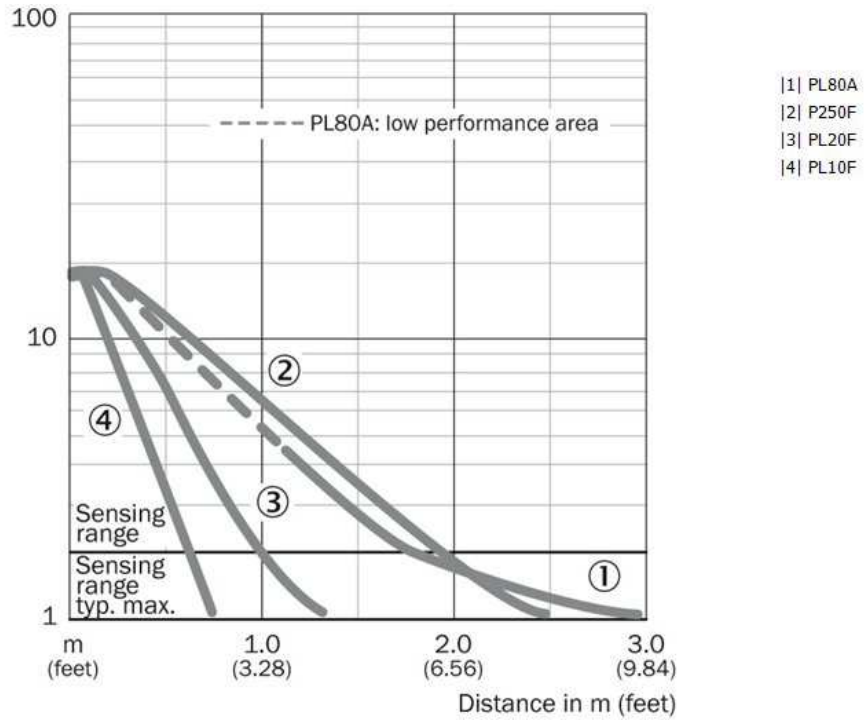
|4| Orange LED indicator : switching output active
|5| Sensitivity adjustment
|6| Light/ dark rotary switch L =
light switching, D = dark switching

Connection diagram

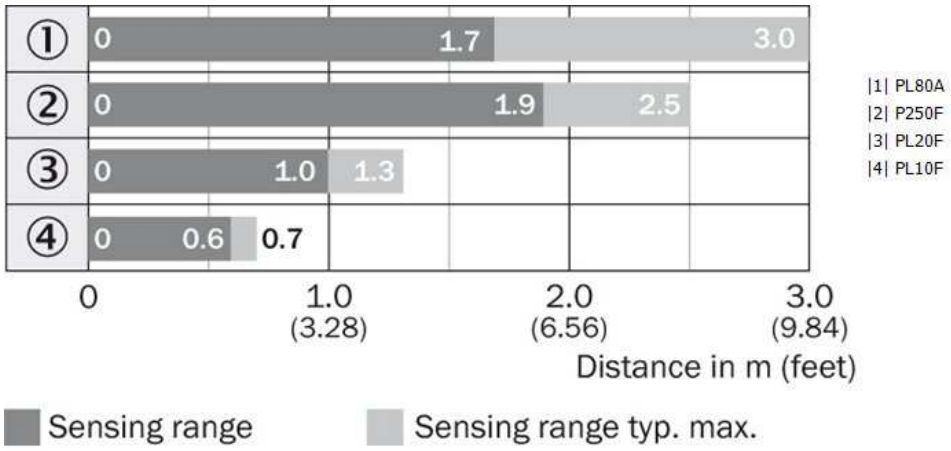


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Characteristic curve

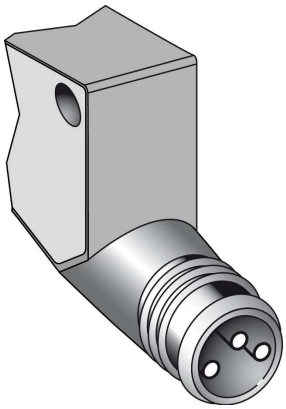


Sensing range diagram



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Connection type



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