



Photoelectric sensors
W100-2, Photoelectric retro-reflective sensor

WL100-2P4239S09



Type > [WL100-2P4239S09](#)
Part No. > [6052395](#)



Illustration may differ

At a glance

- Standard miniature housing with integrated M3 threaded mounting holes
- Bright emitted light spot and clearly visible indicator LEDs
- Light/dark switching and sensitivity adjustment possible
- Long sensing ranges of up to 7.2 m on PL80A reflector

Your benefits

- Long sensing ranges of up to 7.2 m thanks to a high functional reserve
- Straightforward alignment thanks to bright light spot and clearly visible indicator LEDs
- Compatibility with a number of common mounting systems due to standard housing with 1-inch hole spacing and integrated M3 threaded mounting hole
- Highly reliable and durable despite optical interference and mechanical loads



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor
Dimensions (W x H x D):	11 mm x 31 mm x 20 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.01 m ... 6.3 m ¹⁾
Sensing range:	0.01 m ... 5 m ²⁾
Type of light:	Visible red light
Light source:	LED ³⁾
Wave length:	632 nm
Special features:	Higher switching frequency, Switching mode selector via cable
Light spot size (distance):	Ø 280 mm (4 m)

^{1) 2)} PL80A ³⁾ Average service life: 100,000 h at T_U = +25 °C

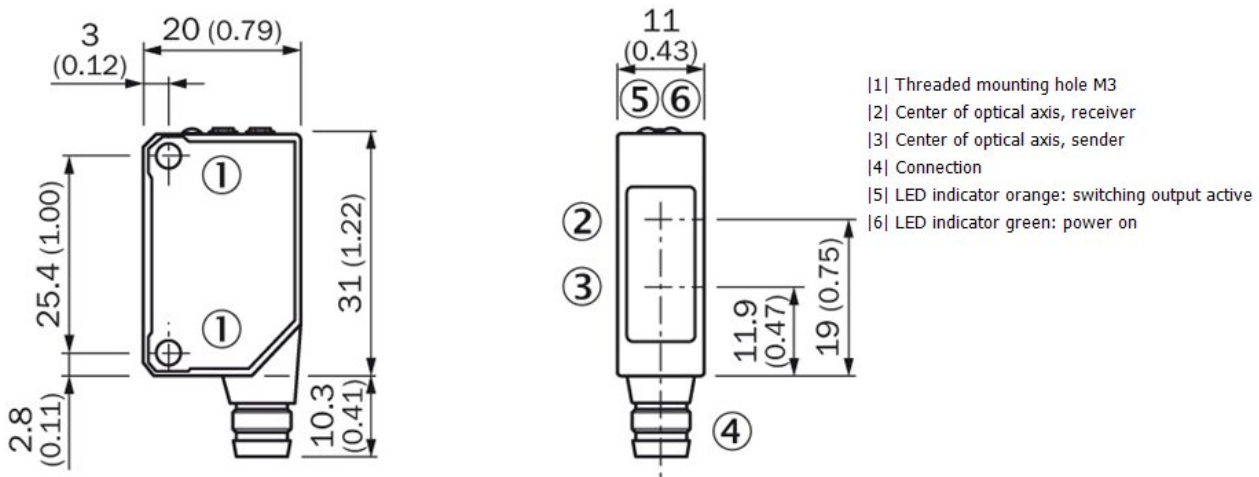
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	± 10 % ²⁾
Current consumption:	≤ 30 mA ³⁾
Output type:	PNP
Switching mode:	Dark switching
Switching mode selector:	Via cable
Output current I _{max.} :	100 mA
Response time:	≤ 0.25 ms ⁴⁾

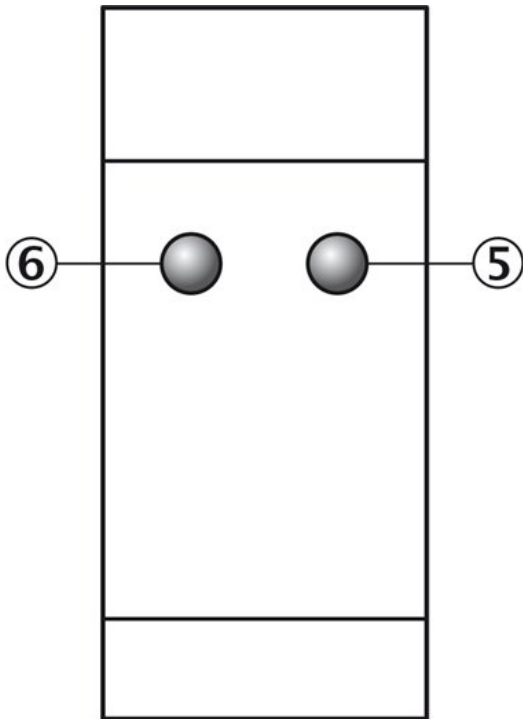
Switching frequency:	2,000 Hz ⁵⁾
Connection type:	Connector M8, 4-pin
Circuit protection:::	A, B, D ^{6) 7) 8)}
Protection class:	III
Polarisation filter:	✓
Special device:	✓
Optics material:	PMMA
Enclosure rating:	IP 67
Ambient operating temperature:	-25 °C ... +55 °C
Ambient storage temperature:	-40 °C ... +70 °C
Signal voltage PNP HIGH/LOW:	UV - 1,8 V / ca. 0 V
Housing material:	ABS/PC/POM, 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) A = V_S
connections reverse-polarity protected 7) B = output reverse-polarity protected 8) D = outputs overcurrent and short-circuit protected

Dimensional drawing

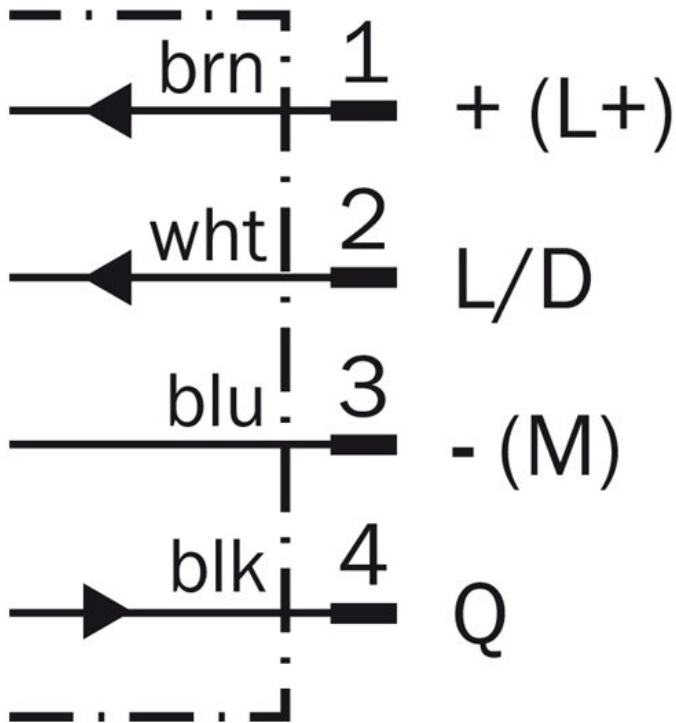


Adjustments possible

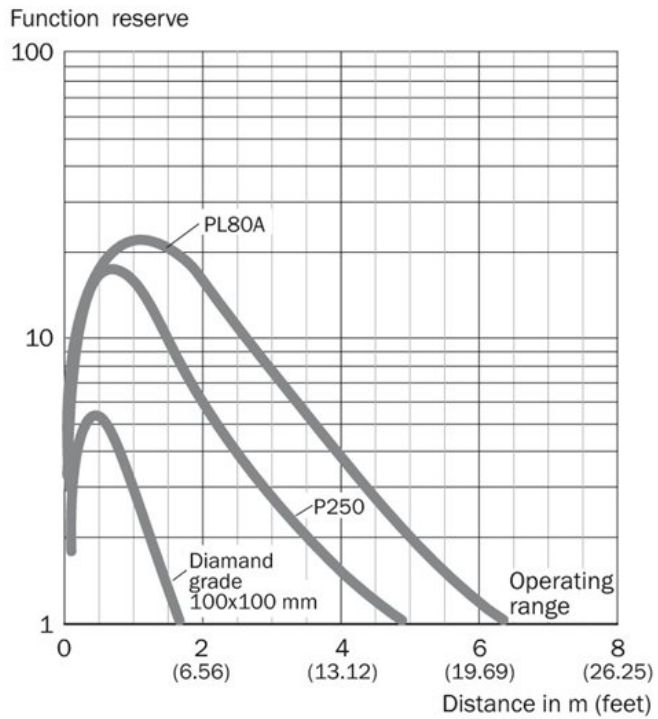


|5| Orange LED indicator : switching output active
|6| LED indicator green: stability indicator

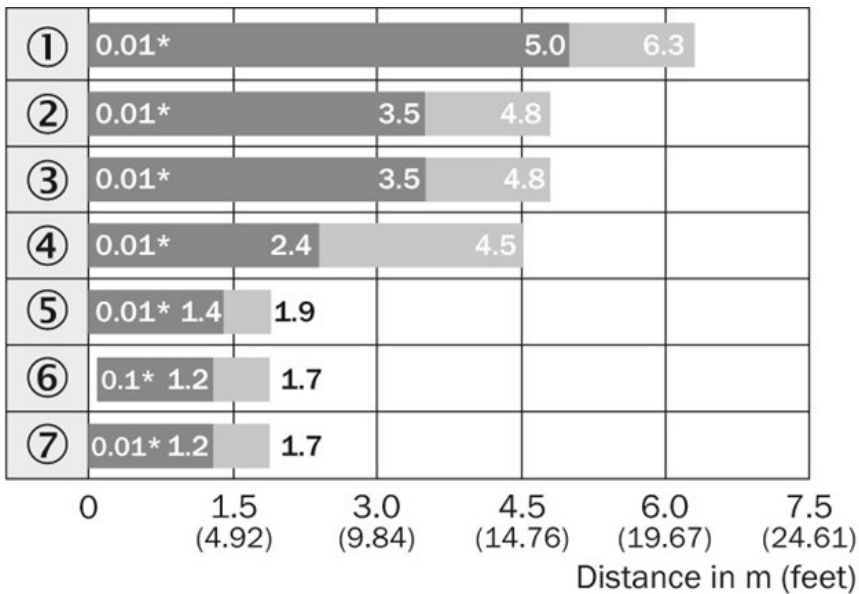
Connection diagram



Operating reserve



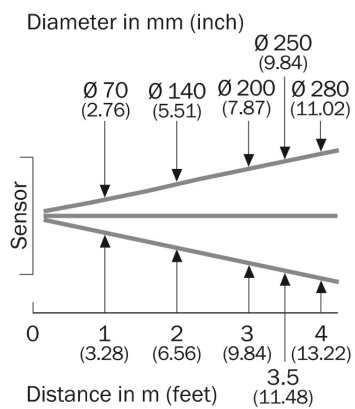
Sensing range diagram



■ Sensing range ■ Sensing range max.

*Close-up range at maximum sensitivity

Light spot size



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