



Photoelectric sensors  
W4-3 Glass, Photoelectric retro-reflective sensor

WLG4-3N1382



Type > [WLG4-3N1382](#)  
Part No. > [1040493](#)



Illustration may differ

**At a glance**

- Fast and reliable setup via teach-in pushbutton
- Continuous threshold adjustment technology to detect objects in changing conditions such as temperature, contamination and reflector wear
- Versions without polarizing filters to better detect depolarizing objects such as PET bottles, CD sleeves and shrink-wrapped, glossy objects

**Your benefits**

- Reliable and quick setting via the push of a button
- Flat housing design eliminates alignment or mounting brackets, which saves time and money
- Low-cost machine integration due to small dimensions that enable mounting in areas with space restrictions
- Quick and easy setup due to highly visible intensive light spot
- The PinPoint LED's well-defined, intense light spot simplifies alignment
- Nearly all transparent objects can be reliably detected



**Features**

Sensor/detection principle:	Photoelectric retro-reflective sensor
Dimensions (W x H x D):	16 mm x 39.5 mm x 12 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.01 m ... 1.6 m <sup>1)</sup>
Sensing range:	0.02 m ... 0.9 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	PinPoint LED <sup>3)</sup>
Wave length:	650 nm
Special features:	Without polarisation filter
Adjustment:	Single teach-in button
Light spot size (distance):	Ø 75 mm (1.5 m)
Continuous threshold adaption:	✓

1) 2) PL80A <sup>3)</sup> Average service life of 100,000 h at T<sub>A</sub> = +25 °C

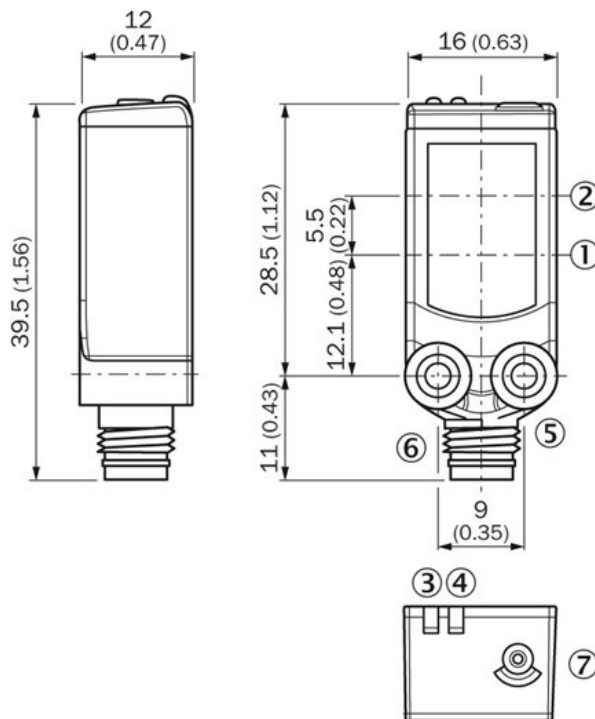
**Mechanics/electronics**

Supply voltage:	10 V DC ... 30 V DC <sup>1)</sup>
Ripple::	< 5 Vpp <sup>2) 3)</sup>
Power consumption:	≤ 20 mA <sup>4)</sup>
Output type:	NPN

Switching mode:	Light switching
Output current I <sub>max.</sub> :	≤ 100 mA
Response time:	< 0.5 ms <sup>5)</sup>
Switching frequency:	1,000 Hz <sup>6)</sup>
Angle of reception:	Ca. 30 °
Attenuation along light beam:	> 8 %
Connection type:	Cable, 3-wire, 2 m <sup>7)</sup>
Cable material:	PVC
Conductor cross-section:	0.14 mm <sup>2</sup>
Cable diameter:	Ø 3.4 mm
Circuit protection:::	A, C, D <sup>8)</sup> 9) 10)
Protection class:	III
Weight:	30 g
Polarisation filter:	-
Optics material:	PMMA
Enclosure rating:	IP 67 IP 66
Special feature:	Detecting transparent objects
Ambient operating temperature:	-40 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +75 °C
Housing material:	ABS, Plastic

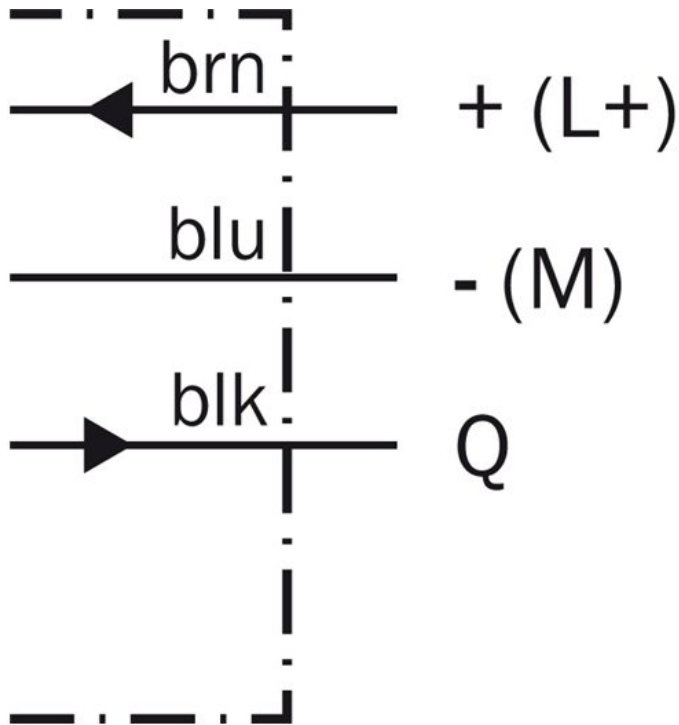
1) Limit values 2) 3) May not exceed or fall short of V<sub>S</sub> tolerances 4) Without load 5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) Do not bend below 0 °C 8) A = V<sub>S</sub> connections reverse-polarity protected 9) C = interference suppression 10) D = outputs overcurrent and short-circuit protected

### Dimensional drawing



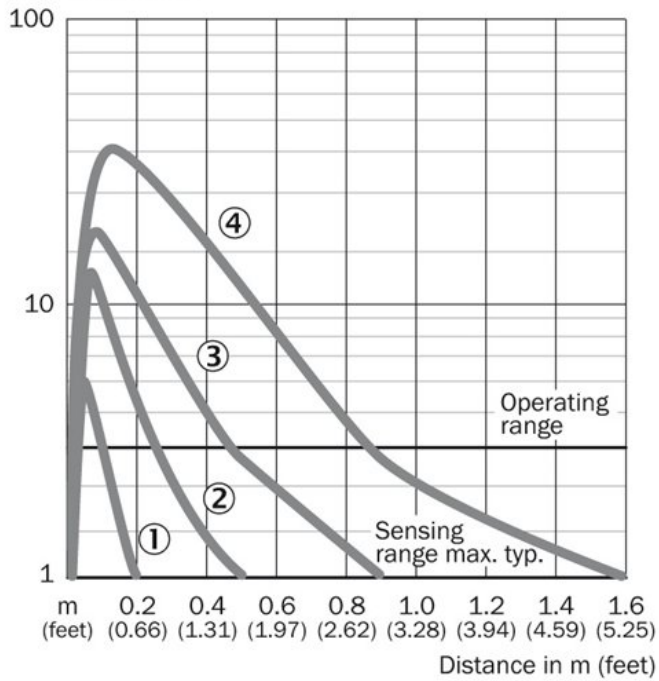
- [1] Center of optical axis, sender
- [2] Center of optical axis, receiver
- [3] LED indicator orange: status of received light beam
- [4] Status indicator LED green: supply voltage on
- [5] Threaded mounting hole M3
- [6] Connection
- [7] Teach-in button

Connection diagram



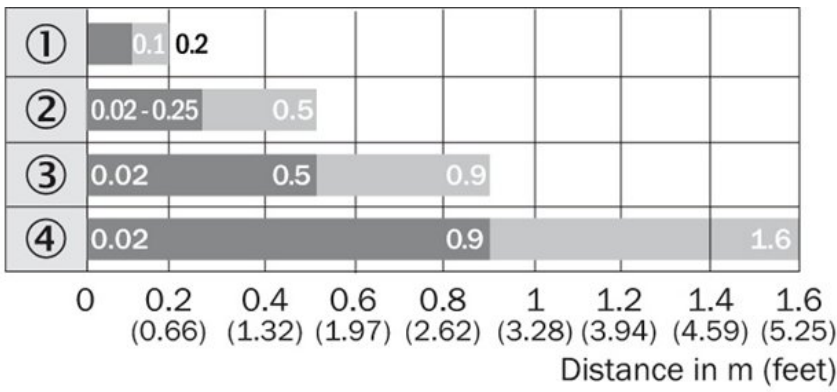
Characteristic curve

Operating reserve



- |1| PL10F
- |2| PL20A
- |3| PL40A
- |4| PL80A

**Sensing range diagram**

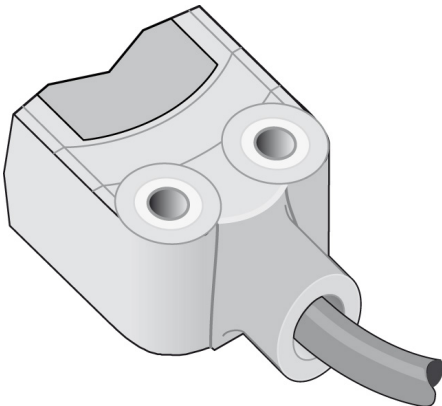


- |1| PL10F
- |2| PL20A
- |3| PL40A
- |4| PL80A

■ Sensing range      ■ Sensing range typ. max.

- ① PL10F
- ② PL20A
- ③ PL40A
- ④ PL80A

**Connection type**



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