



Photoelectric sensors  
W4S-3 Glass, Photoelectric retro-reflective  
sensor, autocollimation

WLG4S-3F2234



**Model Name** > [WLG4S-3F2234](#)  
**Part No.** > [1042084](#)



*Illustration may differ*

**At a glance**

- Continuous threshold adaption of the switching threshold compensates for environmental changes
- Single-lens autocollimation optics
- Simple setting either via teach-in pushbutton, cable or IO-Link
- PinPoint LED technology with a small, highly visible, well-defined light spot enables high reserve levels when using small reflectors
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

**Your benefits**

- Optimal detection of any kind of transparent object
- Quick and easy operation via the push of a button - automatic setting of the correct switching threshold
- Less downtime due to a Continuous Threshold Adaption which compensates for changing environmental conditions, including temperature, dust and drift effects
- The well-defined, highly visible intense light spot provides quick and reliable alignment
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks
- Easy device replacement and identification



**Features**

Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
Dimensions (W x H x D):	12.2 mm x 41.8 mm x 17.3 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0.01 m ... 5 m <sup>1)</sup>
Sensing range:	0 m ... 3 m <sup>2)</sup>
Type of light:	Visible red light
Light source:	PinPoint LED <sup>3)</sup>
Wave length:	650 nm
Adjustment:	Single teach-in button, Cable
Light spot size (distance):	Ø 45 mm (1.5 m)
Continuous threshold adaption:	✓

1) 2) PL80A 3) Average service life of 100,000 h at  $T_A = +25\text{ °C}$

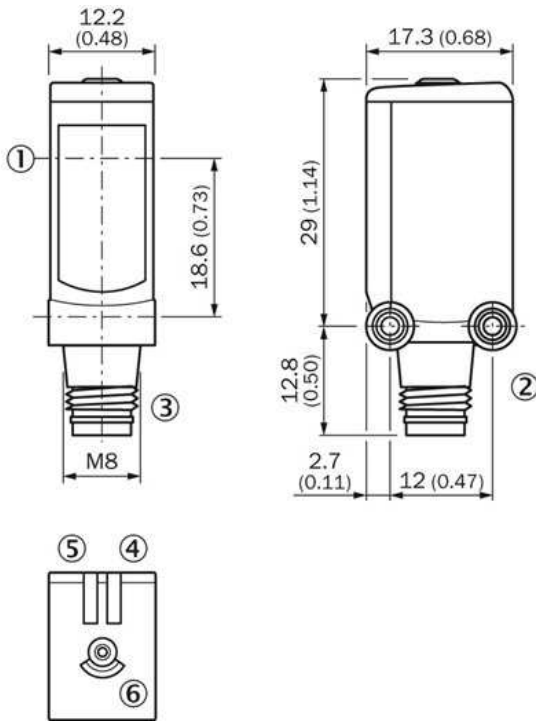
## Mechanics/electronics

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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:	PNP
Switching mode:	Dark 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>
Attenuation along light beam:	> 8 %
Connection type:	Connector M8, 4-pin
Circuit protection:::	A, C, D <sup>7) 8) 9)</sup>
Protection class:	III
Weight:	30 g
Polarisation filter:	✓
Optics material:	PMMA
Enclosure rating:	IP 67 IP 66
Special feature:	Detection of transparent objects
Ambient operating temperature:	-40 °C ... +60 °C
Ambient storage temperature:	-40 °C ... +75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493
Housing material:	ABS, Plastic

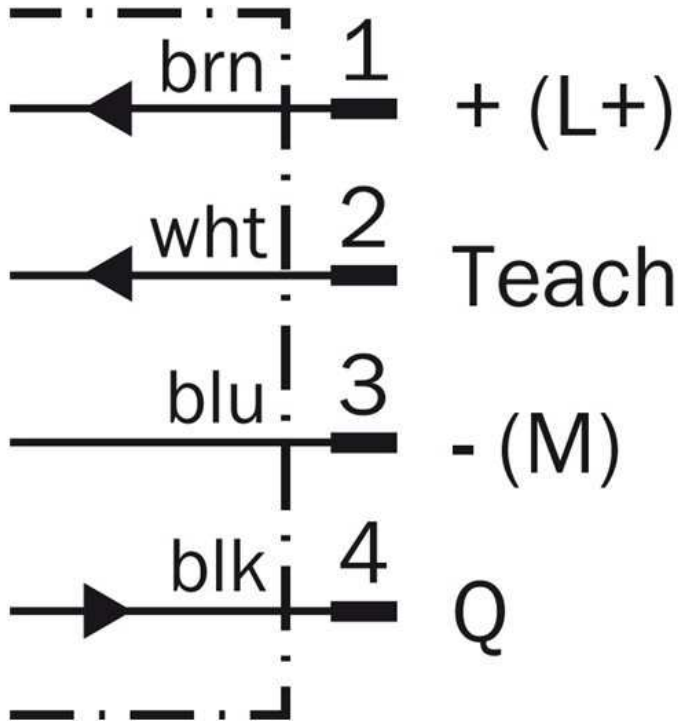
<sup>1)</sup> Limit values <sup>2) 3)</sup> May not exceed or fall short of  $V_S$  tolerances <sup>4)</sup> Without load <sup>5)</sup> Signal transit time with resistive load <sup>6)</sup> With light/dark ratio 1:1 <sup>7)</sup>  $A = V_S$   
<sup>8)</sup> C = interference suppression <sup>9)</sup> D = outputs overcurrent and short-circuit protected

**Dimensional drawing**



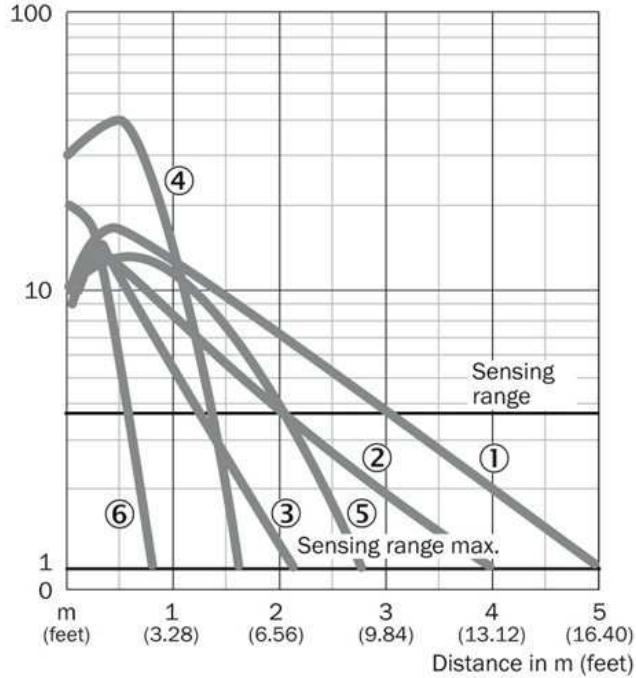
- |1| Center of optical axis
- |2| Threaded mounting hole M3
- |3| Connection
- |4| Status indicator LED green: supply voltage on
- |5| LED indicator orange: status of received light beam
- |6| Teach-in button

**Connection diagram**



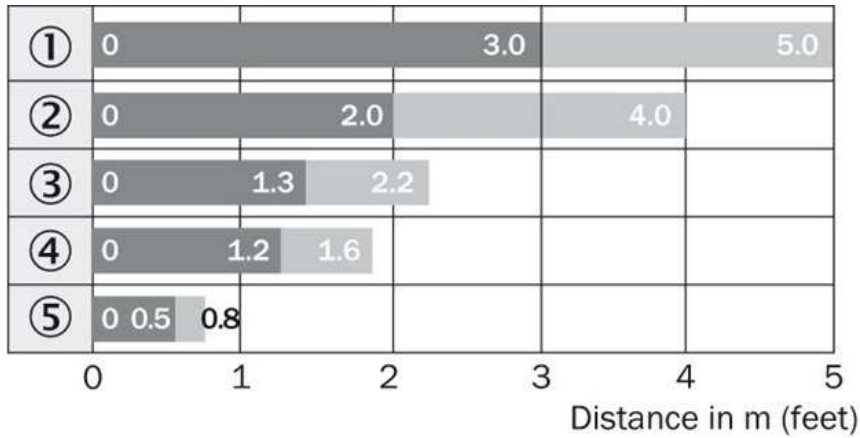
## Characteristic curve

Operating reserve



- |1| PL80A
- |2| PL40A
- |3| PL20A
- |4| PL10F
- |5| P250 CHEM
- |6| REF-IRF-56

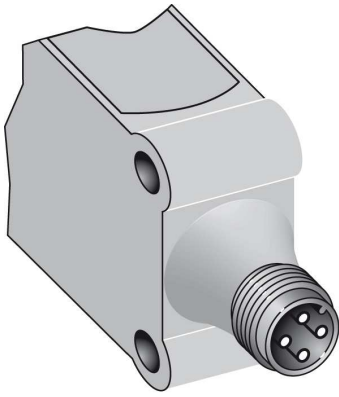
## Sensing range diagram



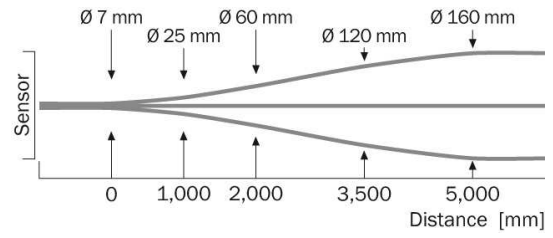
- |1| PL80A
- |2| PL40A
- |3| PL20A
- |4| PL10F
- |5| REF-IRF-56

■ Sensing range      ■ Sensing range max.

## Connection type



## Light spot size



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