



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

WLG4S-3P3432



**Model Name** > [WLG4S-3P3432](#)  
**Part No.** > [1051097](#)



*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
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  $T_A = +25\text{ °C}$

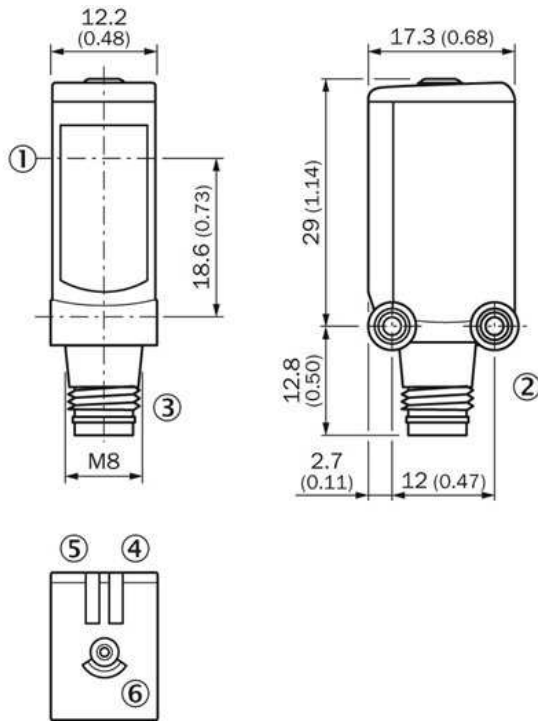
## Mechanics/electronics

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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
Output function:	Complementary
Switching mode:	Light/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>
Angle of reception:	30 °
Attenuation along light beam:	> 8 %
Connection type:	Cable with connector M12, 4-pin, 150 mm <sup>7)</sup>
Cable material:	PVC
Conductor cross-section:	0.14 mm <sup>2</sup>
Cable diameter:	3.4 mm
Circuit protection:::	A, C, D <sup>8) 9) 10)</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

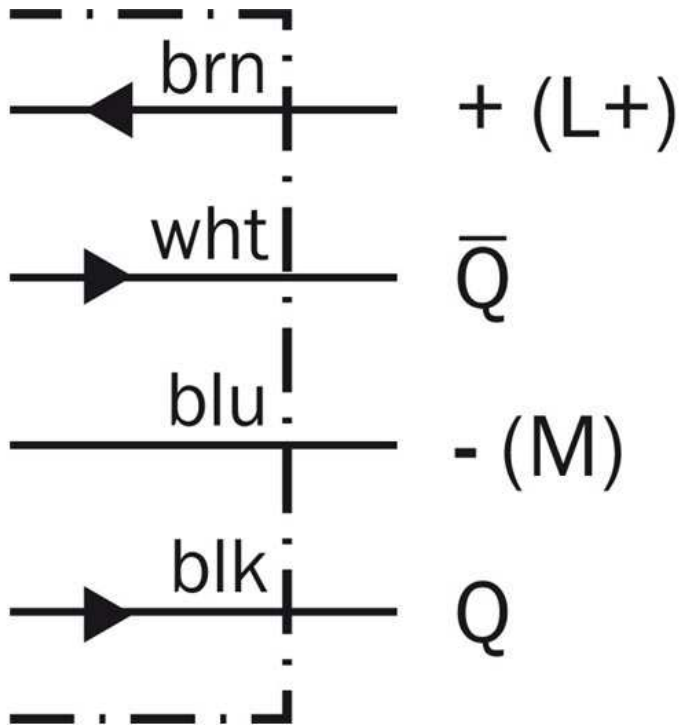
1) Limit values 2) 3) May not exceed or fall short of  $V_S$  tolerances 4) Without load 5) Signal transit time with resistive load 6) With light/dark ratio 1:1 7) Do not bend below 0 °C 8) A =  $V_S$  connections reverse-polarity protected 9) C = interference suppression 10) D = outputs overcurrent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

**Dimensional drawing**



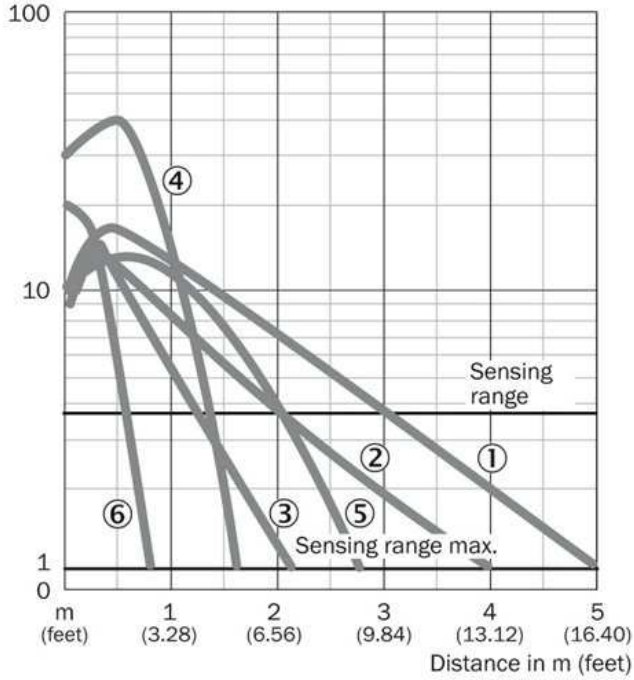
- |1| Center of optical axis
- |2| Threaded mounting hole M3
- |3| Connection
- |4| Status indicator LED green: supply voltage on
- |5| LED indicator orange: status of received light beam
- |6| Teach-in button

**Connection diagram**



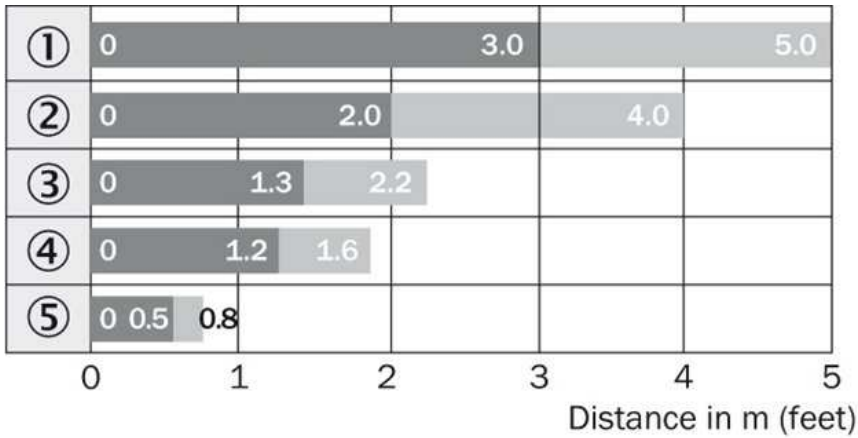
## Characteristic curve

Operating reserve



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

## Sensing range diagram



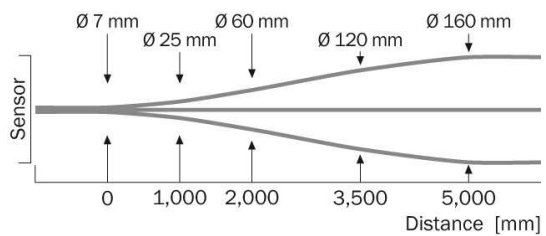
- |1| PL80A
- |2| PL40A
- |3| PL20A
- |4| PL10F
- |5| REF-IRF-56

■ Sensing range      ■ Sensing range max.

### Connection type



### Light spot size



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