



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

WLG4S-3E1134S03



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Model Name > [WLG4S-3E1134S03](#)
Part No. > [1055060](#)



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 ¹⁾
Sensing range:	0 m ... 3 m ²⁾
Type of light:	Visible red light
Light source:	PinPoint LED ³⁾
Wave length:	650 nm
Teach-in:	Single teach-in button
Adjustment:	Teach-in button cable
Light spot size (distance):	Ø 45 mm (1.5 m)

Continuous threshold adaption:

✓

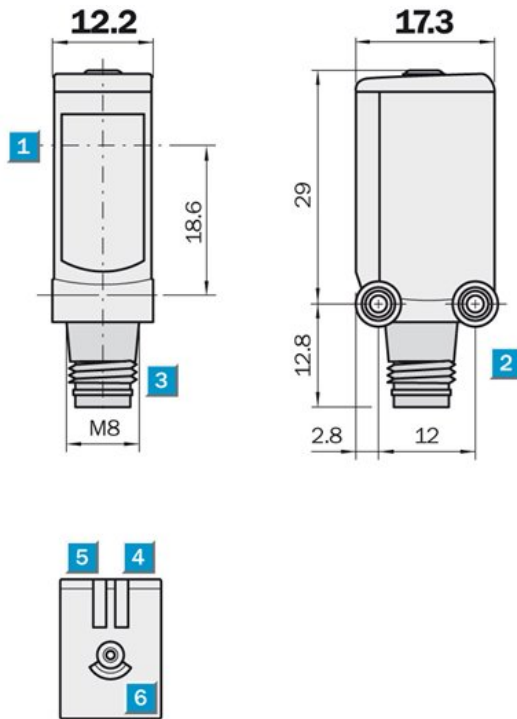
1) 2) PL80A 3) Average service life of 100,000 h at $T_A = +25\text{ °C}$

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	< 5 Vpp ²⁾
Power consumption:	≤ 20 mA ³⁾
Output type:	NPN
Switching mode:	Dark-switching
Output current I _{max.} :	≤ 100 mA
Response time:	< 0.5 ms ⁴⁾
Switching frequency:	1,000 Hz ⁵⁾
Attenuation along light beam:	> 8 %
Connection type:	Cable with special connector, 4-wire, 2 m ⁶⁾
Cable diameter:	Ø 3.4 mm
Circuit protection:::	A, C, D ⁷⁾ 8) 9)
Protection class:	III
Weight:	30 g
Polarisation filter:	✓
Housing material:	ABS, Plastic
Optics material:	PMMA
Enclosure rating:	IP 67 IP 66
Special feature:	For transparent objects
Ambient operating temperature:	-40 °C ... 60 °C
Ambient storage temperature:	-40 °C ... 75 °C

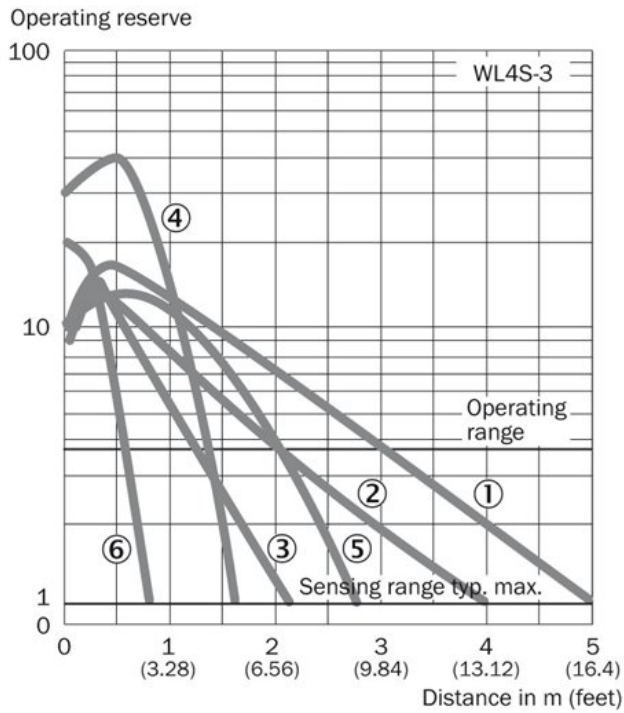
1) Limit values 2) May not exceed or fall short of V_S tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6) Do not bend below 0 °C 7) A = V_S connections reverse-polarity protected 8) C = interference suppression 9) D = outputs overcurrent and short-circuit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

Dimensional drawing



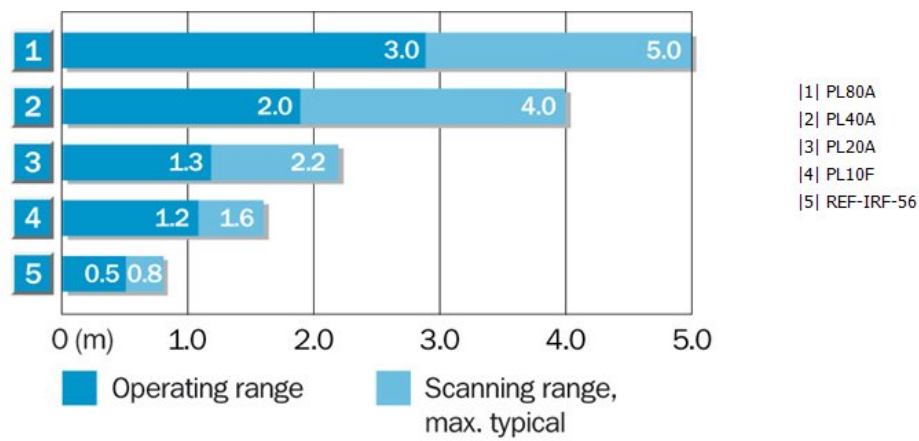
- |1| Center of optical axis
- |2| Threaded mounting hole M3
- |3| Connection
- |4| Status indicator LED green: power on
- |5| LED indicator orange: status of received light beam
- |6| Teach-in button

Characteristic curve



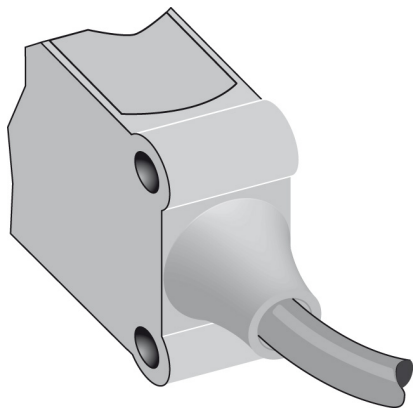
- |1| PL80A
- |2| PL40A
- |3| PL20A
- |4| PL10F
- |5| P250 CHEM
- |6| REF-IRF-56

Sensing range diagram



Reflector type		Operating range
1	PL80A	0 ... 3.0 m
2	PL40A	0 ... 2.0 m
3	PL20A	0 ... 1.3 m
4	PL10F	0 ... 1.2 m
5	REF-IRF-56	0 ... 0.5 m

Connection type



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