



Photoelectric sensors  
W12G, Photoelectric retro-reflective sensor,  
autocollimation

WL12G-3P2472S03



Model Name > [WL12G-3P2472SO3](#)

Part No. > [1057556](#)



Illustration may differ



#### Features

Sensor/detection principle:	Photoelectric retro-reflective sensor, autocollimation
Dimensions (W x H x D):	15.6 mm x 48.5 mm x 42 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 0.7 m <sup>1)</sup>
Type of light:	Visible red light
Light source:	LED <sup>2)</sup>
Wave length:	640 nm
Angle of dispersion:	Ca. 1.5 °
Special features:	Sensitivity setting; single teach button, Sensing range: 0.7 on Diamond Grade
Adjustment:	Teach-in button
Light spot size (distance):	Ø 25 mm (1.5 m)

1) 2) 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)</sup>
Power consumption:	≤ 30 mA <sup>3)</sup>
Output type:	PNP
Output function:	Complementary
Switching mode:	Light/dark switching
Output current I <sub>max.</sub> :	100 mA
Response time:	≤ 330 μs <sup>4)</sup>
Switching frequency:	± 1,500 Hz <sup>5)</sup>
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D <sup>6) 7) 8)</sup>
Protection class:	II
Weight:	120 g
Polarisation filter:	✓
Housing material:	Metal

Enclosure rating: IP 66  
IP 67

Special feature: For transparent objects

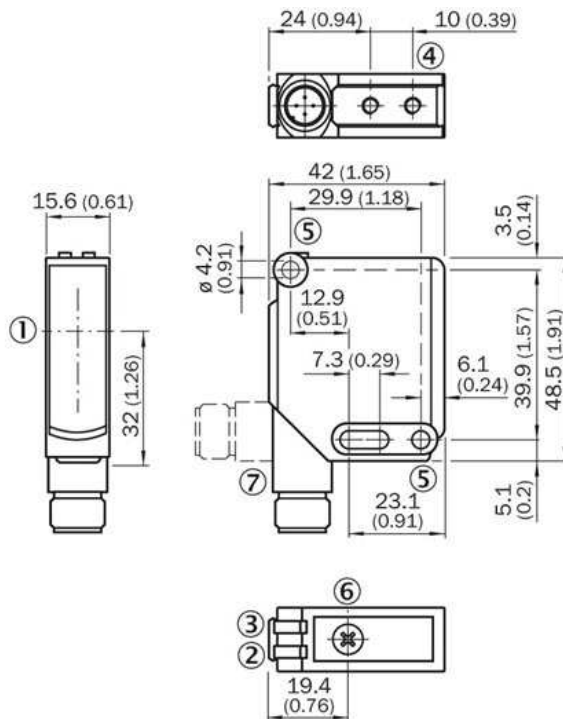
Ambient operating temperature: -40 °C ... +60 °C

Ambient storage temperature: -40 °C ... +75 °C

Signal voltage NPN HIGH/LOW: Approx.  $U_v / < 3 V$

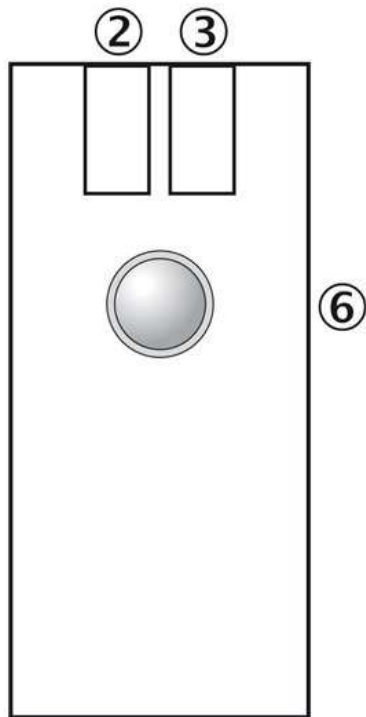
1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of  $V_S$  tolerances 3) Without load 4) Signal transit time with resistive load 5) With light/dark ratio 1:1 6)  $A = V_S$  connections reverse-polarity protected 7) C = interference suppression 8) D = outputs overcurrent and short-circuit protected

## Dimensional drawing



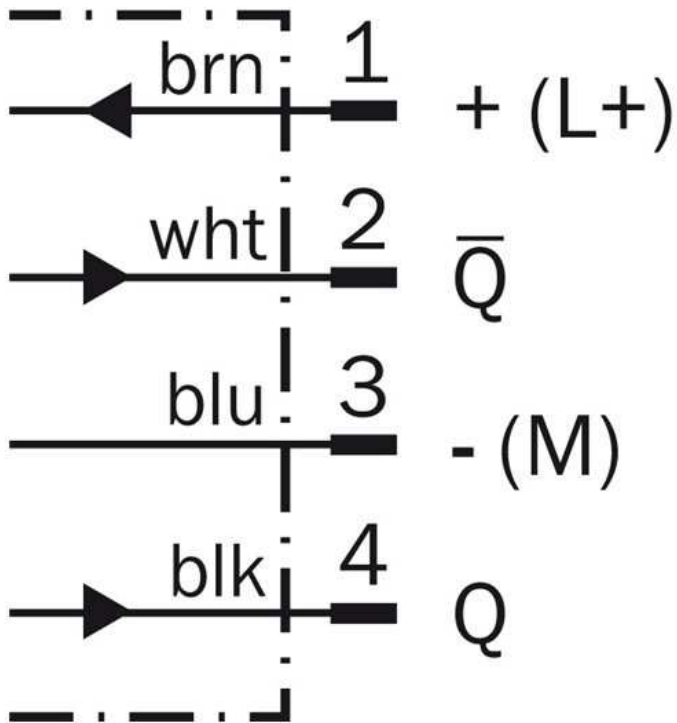
- |1| Optical axis
- |2| LED indicator yellow: Light received
- |3| Green LED indicator: supply voltage active
- |4| M4 threaded mounting hole, 4 mm deep
- |5| Mounting hole,  $\varnothing 4.2$  mm
- |6| Sensitivity adjustment: poti
- |7| Connection

## Adjustments possible

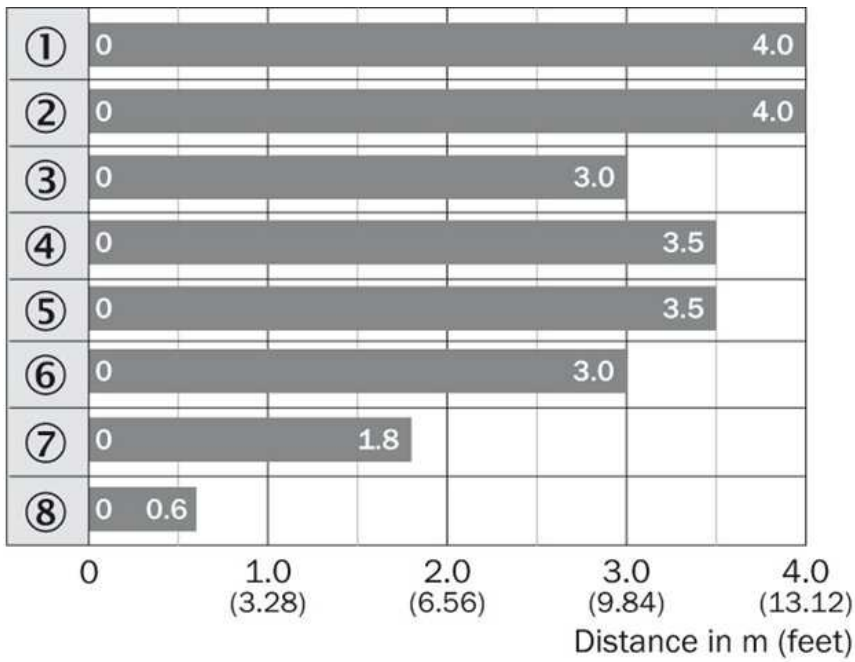


- |2| LED indicator yellow: Light received
- |3| LED indicator, green: power on, teach-in mode I, LED indicator, blue: teach-in mode II
- |6| Single teach button, function 1: teach-in sensitivity on reflector, function 2: change operation/teach-in mode

## Connection diagram



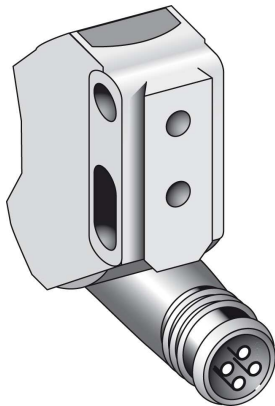
**Sensing range diagram**



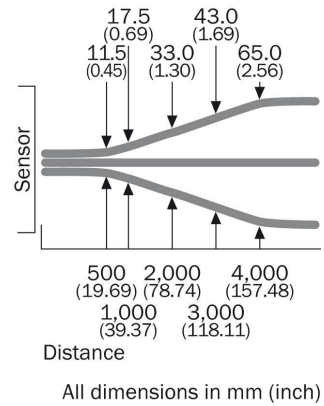
- |1| PL80A
- |2| C110A
- |3| P250F
- |4| PL50A
- |5| PL40A
- |6| PL30A
- |7| PL20A
- |8| REF-IRF-56

■ Sensing range max.

**Connection type**



**Light spot size**



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