



Photoelectric sensors W12G, Photoelectric retro-reflective sensor, autocollimation

WL12G-3P2472S03



Model Name > [WL12G-3P2472SO3](#)
Part No. > [1057556](#)



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 ¹⁾
Type of light:	Visible red light
Light source:	LED ²⁾
Light spot (distance):	25 mm (1.5 m)
Wave length:	640 nm
Sensitivity adjustment:	Teach-in button
Angle of dispersion:	Ca. 1.5 °

¹⁾ ²⁾ Average service life 100,000 h at Ta = +25 °C

Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Power consumption:	≤ 30 mA ³⁾
Output type:	PNP, Light/dark-switching, Complementary
Signal voltage NPN HIGH/LOW:	Approx. Uv / < 3 V
Output current I _{max} :	100 mA
Response time:	≤ 330 µs ⁴⁾
Switching frequency:	1,500 Hz ⁵⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, C, D ⁶⁾ ⁷⁾ ⁸⁾
Protection class:	II
Weight:	120 g
Polarisation filter:	✓
Enclosure rating:	IP 66 IP 67
Special feature:	For transparent objects

Special features:

Sensitivity adjustment (Teach-in-button), Sensing range: 0.7 on Diamond Grade

Ambient operating temperature:

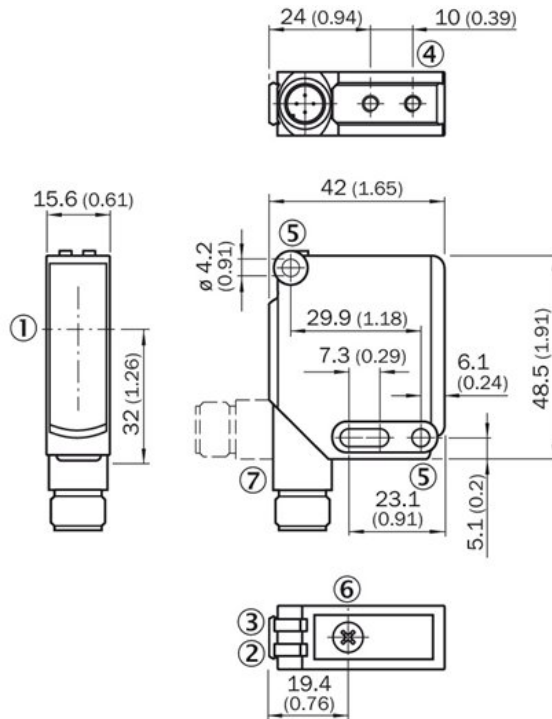
-40 °C ... 60 °C

Ambient storage temperature:

-40 °C ... 75 °C

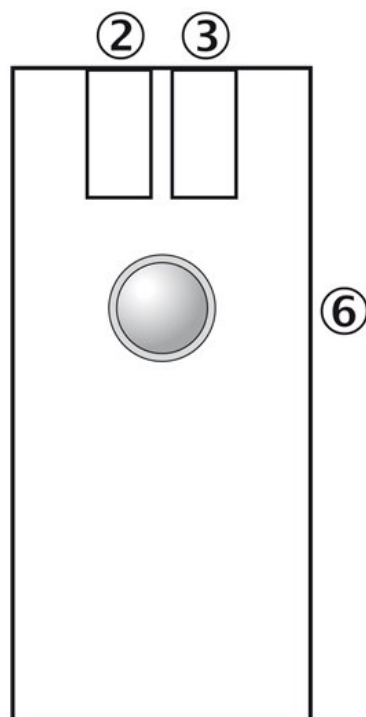
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ May not exceed or fall short of V_S ³⁾ Without load ⁴⁾ Signal transit time with resistive load ⁵⁾ With light/dark ratio 1:1 ⁶⁾ $A = V_S$ connections reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent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

Dimensional drawing



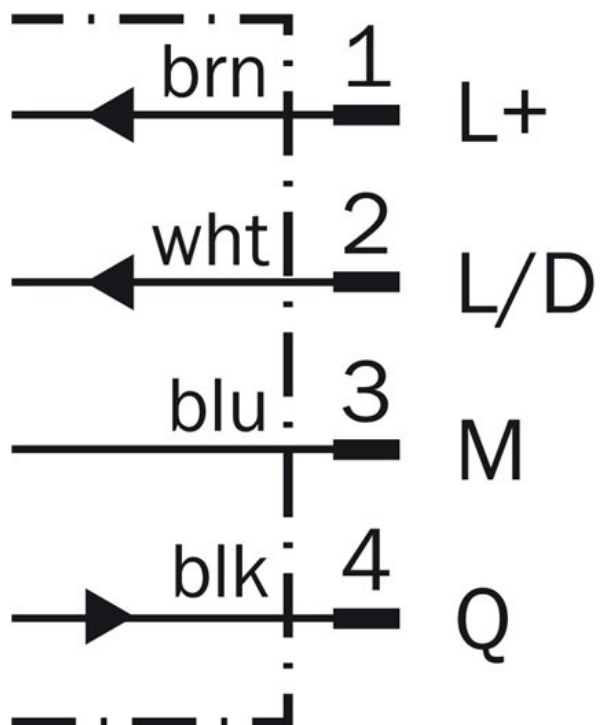
- ① Optical axis
- ② LED indicator yellow: Light received
- ③ Green LED indicator: supply voltage active
- ④ M4 threaded mounting hole, 4 mm deep
- ⑤ Mounting hole, Ø 4.2 mm
- ⑥ Sensitivity adjustment: poti
- ⑦ Connection

Adjustments possible

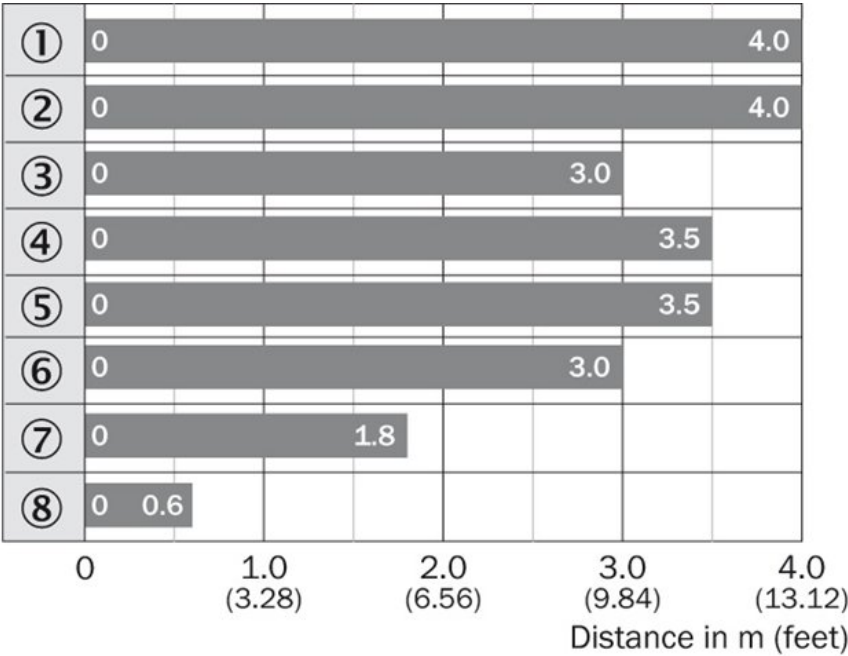


- |2| LED indicator yellow: Light received
- |3| LED indicator, green: power on, teach-in mode I, LED indicator, blue: teach-in mode II
- |6| Single-teach-in button, function
1: teach-in sensitivity on reflector
, function 2: change operation/teach-in mode

Connection diagram

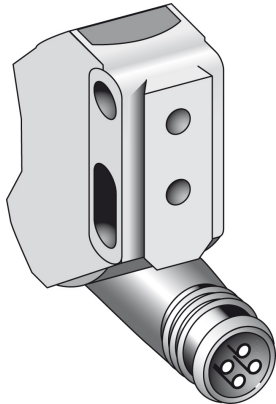


Sensing range diagram

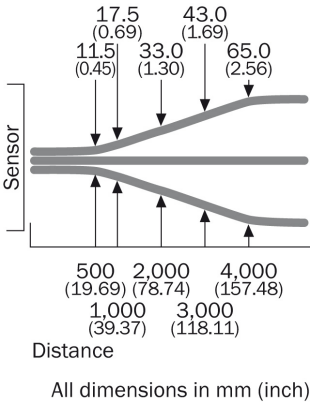


■ Sensing range max.

Connection type



Light spot size



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