



Photoelectric sensors W12G, Photoelectric retro-reflective sensor, autocollimation

WL12GC-3P2472



Model Name > [WL12GC-3P2472](#)
Part No. > [1054087](#)



Illustration may differ

At a glance

- Reliable detection of transparent objects
- Rugged housing for industrial use
- Rugged die-cast zinc housing
- Flexible sensor settings, monitoring, extended diagnostics, and visualization thanks to IO-Link

Your benefits

- Reliable detection of transparent objects, including PET bottles and transparent film
- Rugged metal housing (optional Teflon® coating available) requires less maintenance due to its resistance to high-pressure cleaning environments
- 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):	15.5 mm x 48.5 mm x 42 mm
Housing design (light emission):	Rectangular
Sensing range max.:	0 m ... 4 m ¹⁾
Type of light:	Visible red light
Light source:	PinPoint LED ²⁾
Wave length:	660 nm
Adjustment:	Teach-in button ^{3) 4)}
Light spot size (distance):	Ø 25 mm (1.5 m)
Continuous threshold adaption:	✓
IO-Link functions:	Standard functions

¹⁾ PL80A ²⁾ Average service life of 100,000 h at T_A = +25 °C ³⁾ Mode I, 10 % attenuation ⁴⁾ Mode II, 18 % attenuation

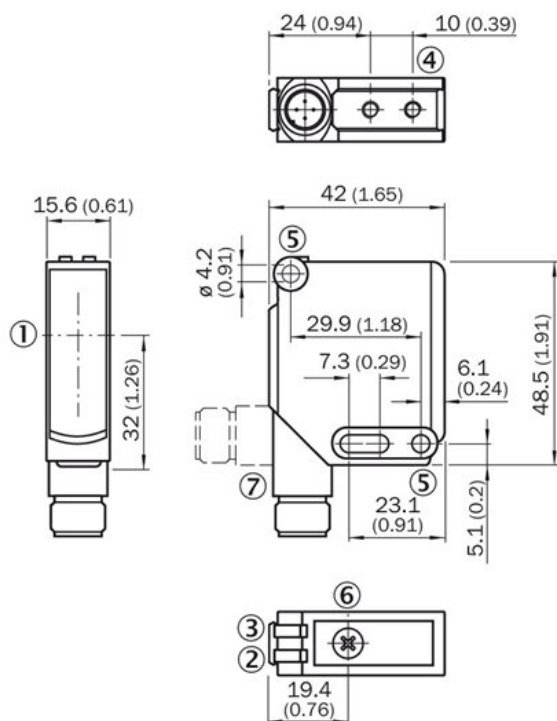
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Power consumption:	≤ 40 mA ²⁾
Output type:	PNP

Output function:	Complementary
Switching mode:	Light/dark-switching
Signal voltage PNP HIGH/LOW:	Approx. VS - 2.5 V/0 V
Output current I _{max} :	100 mA
Response time:	≤ 333 μs ³⁾
Switching frequency:	1,500 Hz ⁴⁾
Connection type:	Connector M12, 4-pin
Circuit protection:::	A, B, C, D ⁵⁾ ⁶⁾ ⁷⁾ ⁸⁾
Protection class:	II
Weight:	120 g
Polarisation filter:	✓
IO-Link:	✓
Special device:	-
Housing material:	Metal, Zinc diecast
Optics material:	PMMA
Enclosure rating:	IP 66 IP 67
Special feature:	For transparent objects
Operating mode:	Mode I, Mode II
Description:	IO-Link, 2 Bit Processdata length Q and VMA, COM2, 2.3 ms, SIO Mode
Ambient operating temperature:	≤ 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File No.:	NRKH.E181493 & NRKH7.E181493

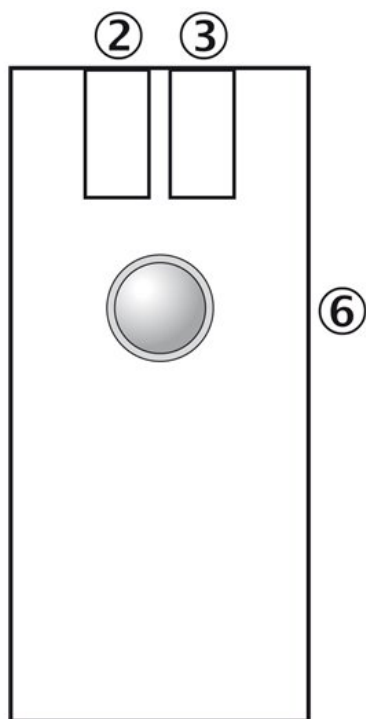
¹⁾ Limit values, operation in short-circuit protected network max. 8 A ²⁾ Without load ³⁾ Signal transit time with resistive load ⁴⁾ With light/dark ratio 1:1 ⁵⁾ A = V_S
connections reverse-polarity protected ⁶⁾ B = inputs and output reverse-polarity protected ⁷⁾ C = interference suppression ⁸⁾ D = outputs overcurrent and short-circuit
protected

Dimensional drawing



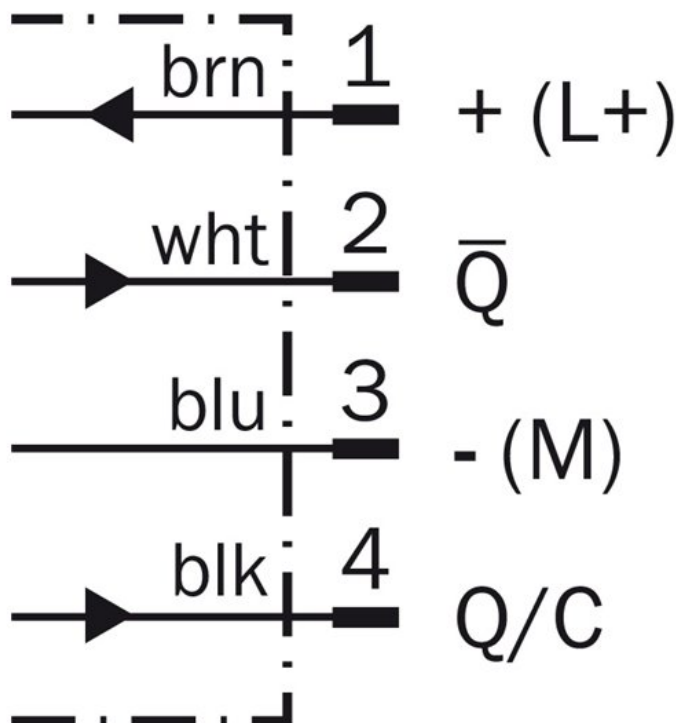
- [1] Optical axis
- [2] LED indicator yellow: Light received
- [3] Green LED indicator: supply voltage active
- [4] M4 threaded mounting hole, 4 mm deep
- [5] Mounting hole, Ø 4.2 mm
- [6] Sensitivity adjustment: poti
- [7] Connection

Adjustments possible

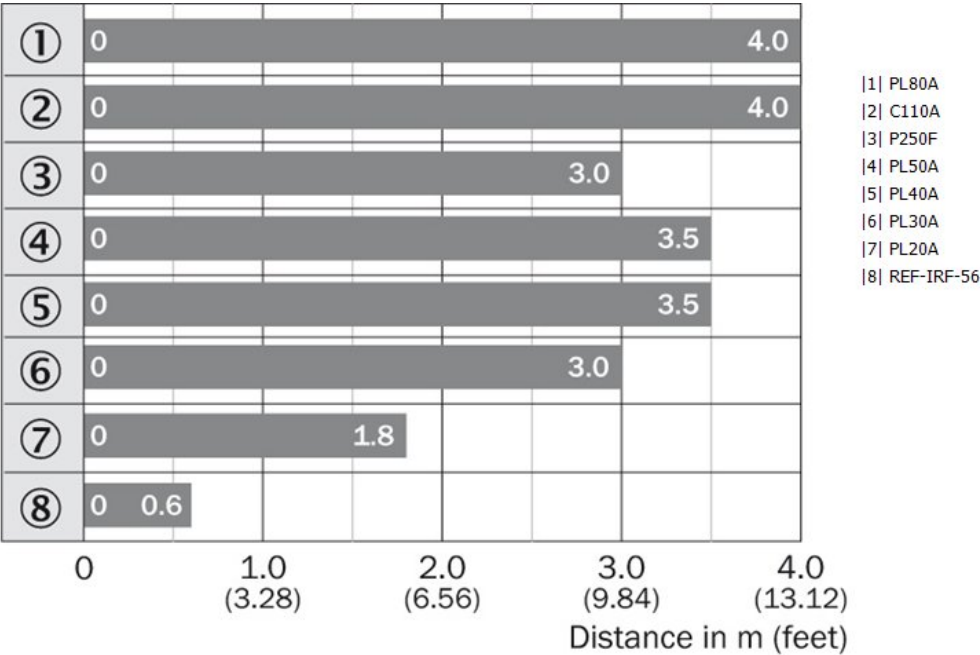


- [2] LED indicator yellow: Light received
- [3] LED indicator, green: power on, teach-in mode I, LED indicator, blue: teach-in mode II
- [6] Single teach button, function 1: teach-in sensitivity on reflector, function 2: change operation/teach-in mode

Connection diagram

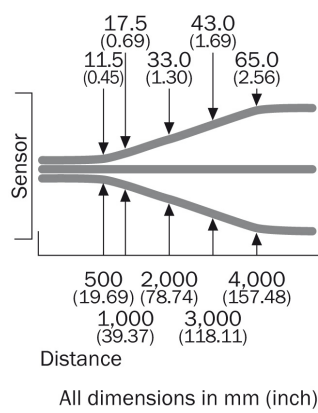


Sensing range diagram



■ Sensing range max.

Light spot size



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