



Photoelectric sensors
W12G, Photoelectric retro-reflective sensor

WL12G-3P2582P04



Model Name > **WL12G-3P2582P04**
Part No. > **1059645**



At a glance

- Reliable detection of transparent objects
- IR sender, wave length 850 nm
- Reliable detection of clear materials, e.g. glass ,PET-Bottles
- Static threshold
- Three threshold operation levels (Mode 1= 40% + Mode 2 =18% +Mode 3 = 10 %), selectable by teach-in via button or external teach-in (ET)

Your benefits

- Reliable detection of transparent objects, including PET bottles and transparent film
- Precise switching characteristics and high-performance object detection provides increased productivity
- Rugged metal housing (optional Teflon® coating available) requires less maintenance due to its resistance to high-pressure cleaning environments
- Highly visible status LEDs simplify commissioning, reduce installation time and provide quick diagnostics information



Features

Sensor/detection principle:	Photoelectric retro-reflective sensor
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 ... 3 m ¹⁾
Type of light:	Infrared light
Light source:	LED ²⁾
Wave length:	850 nm
Light spot diameter (distance):	Ø 25 mm (1.5 m)
Sensitivity adjustment:::	Cable, Teach-in button ^{3) 4) 5)}

¹⁾ P250F ²⁾ Average service life 100,000 h at Ta = +25 °C ³⁾ Mode I, 40 % attenuation ⁴⁾ Mode II, 18 % attenuation ⁵⁾ Mode I, 10 % attenuation

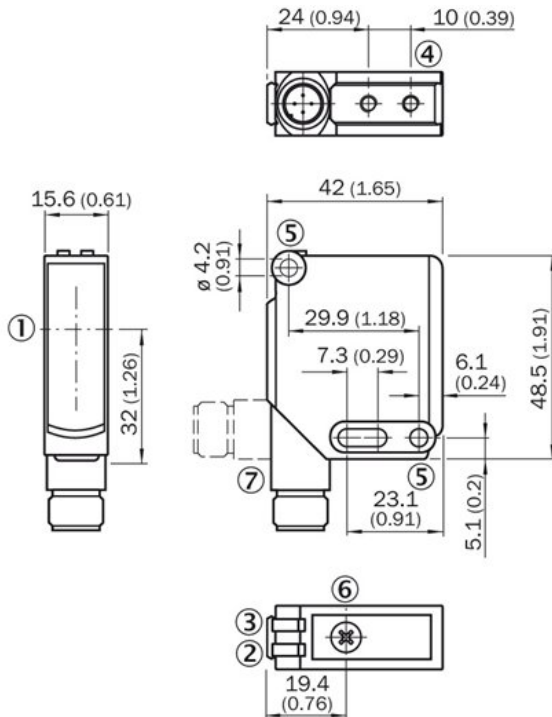
Mechanics/electronics

Supply voltage:	10 V DC ... 30 V DC ¹⁾
Ripple:	≤ 5 Vpp ²⁾
Power consumption:	≤ 40 mA ³⁾
Output type:	PNP
Switching mode:	Light switching ⁴⁾
Signal voltage PNP HIGH/LOW:	Approx. VS - 2.5 V / 0 V

Output current I _{max} ..:	100 mA
Response time:	≤ 333 μs ⁵⁾
Switching frequency:	1,500 Hz ⁶⁾
Connection type:	Connector M12, 5-pin
Circuit protection:::	A, B, C, D ^{7) 8) 9)}
Protection class:	II ¹⁰⁾
Weight:	120 g
Polarisation filter:	✓
Special device:	-
Housing material:	Zinc diecast
Optics material:	PMMA
Enclosure rating:	IP 66 IP 67
Items supplied:	Reflector PL20F
Special feature:	For transparent objects
Ambient operating temperature:	≤ 60 °C
Ambient storage temperature:	-40 °C ... 75 °C
UL File-No.:	UL No. NRKH.E181493 & cUL No. NRKH7.E181493

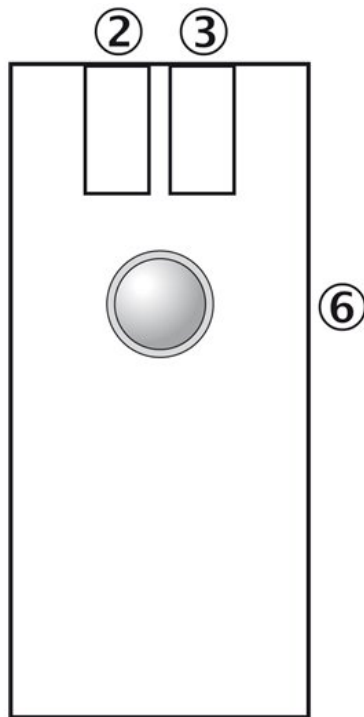
1) Limit values, operation in short-circuit protected network max. 8 A 2) May not exceed or fall short of V_S³⁾ Without load⁴⁾ PNP toff 50 ms⁵⁾ Signal transit time with resistive load⁶⁾ With light/dark ratio 1:1⁷⁾ A = V_S connections reverse-polarity protected⁸⁾ C = interference suppression⁹⁾ D = outputs overcurrent and short-circuit protected¹⁰⁾ Reference voltage 50 V DC

Dimensional drawing



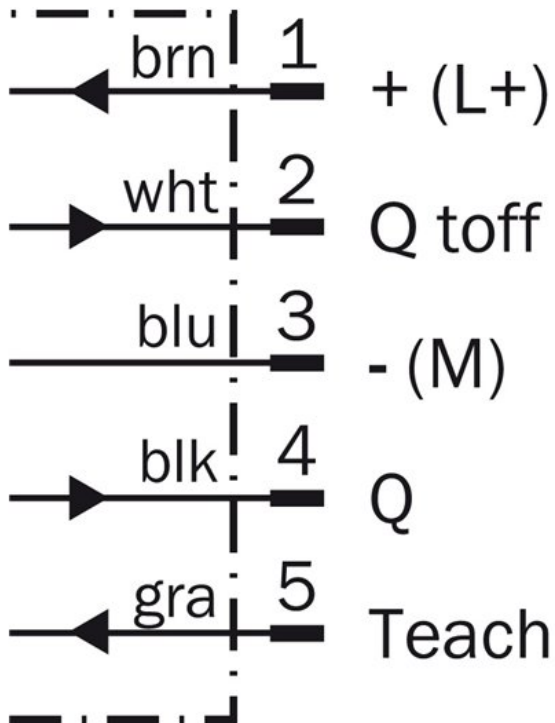
- [1] Optical axis
- [2] LED indicator yellow: Light received
- [3] Green LED indicator: supply voltage active
- [4] M4 threaded mounting hole, 4 mm deep
- [5] Mounting hole, Ø 4.2 mm
- [6] Sensitivity adjustment: poti
- [7] Connection

Adjustments possible

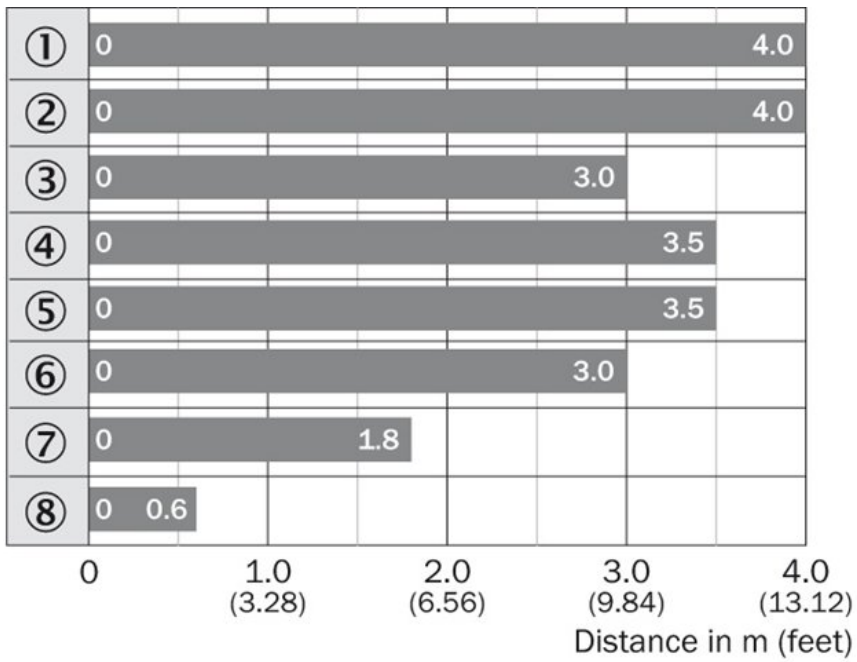


- |2| LED indicator yellow: Light received
- |3| LED indicator, green: power on, teach-in mode I, LED indicator, blue: teach-in mode II
- |6| Single-teach-in button, function
 - 1: teach-in sensitivity on reflector
 - , function 2: change operation/teach-in mode

Connection diagram

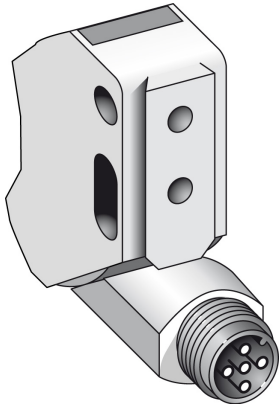


Sensing range diagram



■ Sensing range max.

Connection type



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