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Photoelectric sensors
W12G, Photoelectric retro-reflective sensor, autocollimation

WL12G-3F3072S06

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W12G, Photoelectric retro-reflective sensor, autocollimation

Model Name > WL12G-3F3072S06
Part No. > 1053543

Illustration may differ

At a glance

- Reliable detection of transparent objects
- Optional Continuous Threshold Adaption (CTA)
- Sensing range is adjustable via potentiometer or teach-in pushbutton
- Rugged housing for industrial use
- Highly visible red light spot for versatile detection of objects
- Rugged die-cast zinc housing with optional Teflon® coating
- Versatile mounting options due to dovetail mounting - mounting holes and oblong holes
- Highly visible status LEDs

Your benefits

Reliable detection of transparent objects, including PET bottles and transparent film

PinPoint LED technology provides a bright, small and precise light spot that enables quick and easy sensor alignment

Precise switching characteristics and high-performance object detection provides increased productivity

High immunity to optical interference reduces false readings

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

Easy installation using SICK accessories

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)]
Light spot (distance):	25 mm (1.5 m)
Wave length:	660 nm

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Sensitivity adjustment:	Teach-in button Mode I, 10 % attenuation Mode II, 18 % attenuation

[1] PL80A [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:	≤ 40 mA [3]
Output type:	PNP, Dark-switching
Output current Imax.:	100 mA
Response time:	≤ 333 µs [4]
Switching frequency:	1,500 Hz [5]
Connection type:	Cable with plug MOLEX MINI-FIT, 3-pin
Circuit protection::::	A, B, C, D [6] [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
Special feature:	For transparent objects
Operating mode:	Mode I, Mode II
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_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] B = inputs and output reverse-polarity protected [8] C = interference suppression [9] D = outputs overcurrent and short-circuit protected [10] Reference voltage 50 V DC

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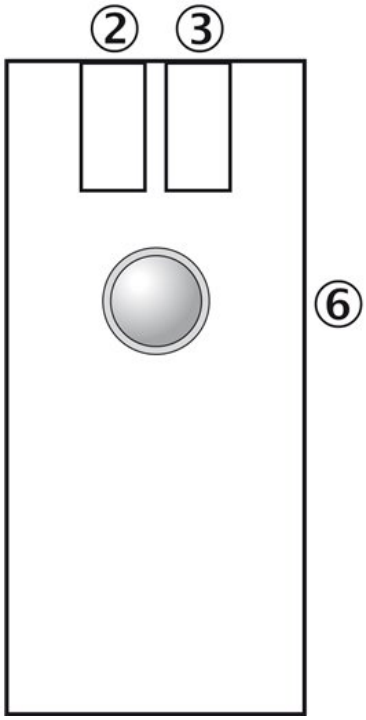
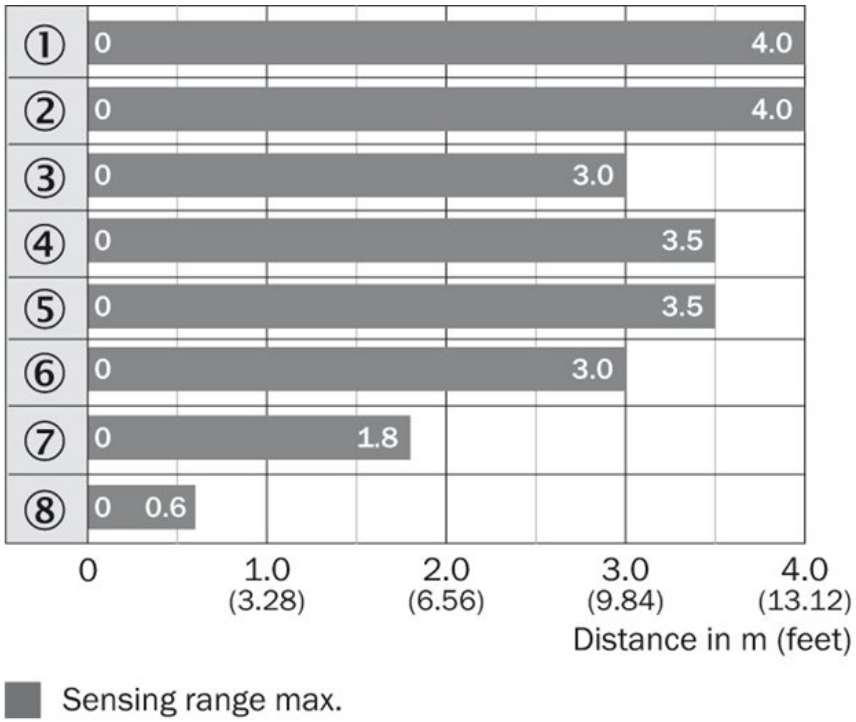
Adjustments possible



|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

Sensing range diagram



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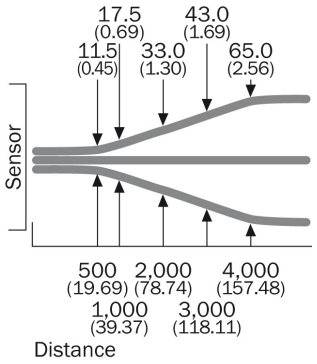
Light spot size



All dimensions in mm (inch)

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