

## W12-3 Photoelectric Sensors

More robust, more accurate, more intelligent

**W12-3 – best performance in a metal housing**, offering a clear advantage over conventional opto-electronic sensors in terms of object detection, survival in industrial environments and sensor monitoring.

**W12-3 reliably operates under any ambient conditions**, in the temperature range from  $-40\text{ }^{\circ}\text{C}$  to  $+60\text{ }^{\circ}\text{C}$ . W12-3 meets the requirements of IP 69K protection. The ECOLAB test proves its high resistance to detergents and disinfectants. Unwanted ambient light sources such as ceiling lights and optical reflections are identified, assessed and suppressed. W12-3 is protected effectively from electromagnetic fields.

**W12-3 adapts to your system.** Rotatable plug or cable connections provides increased mounting options, whilst common design features, such as dovetail mounting, permit maximum flexibility in selecting sensors. Thanks to its slim-line housing design, the W12-3 is easy to integrate.

**Commissioning a W12-3 is quick and easy.** The easily visible  $360^{\circ}$  status LEDs are useful aids to sensor diagnostics during commissioning, adjustment or when in operation. The scanning distance is adjusted either traditionally using potentiometers, or via Teach-in. Place object in the beam path, press button, ready.

**WT12-3 with IO Link offers expandable diagnostics.** For example, the scanner can be parametrized and monitored via field bus connection, allowing reduced downtime during product changeovers.

**W12-3: convincing through variety.** Top sensor technology, ideally adapted to the individual application, provides solutions to a wide range of Automation technology tasks. Whether in the packaging, pharmaceutical, bottling or printing industry, W12-3 is always the right choice.

Stocked, Distributed, and Supported by

**SENSORS**  
INCORPORATED

507 Kelsey Street • Delano, MN 55328  
Phone 763-972-1040 Fax 763-972-1041  
Toll Free 888-920-0939  
Sensorsincorporated.com

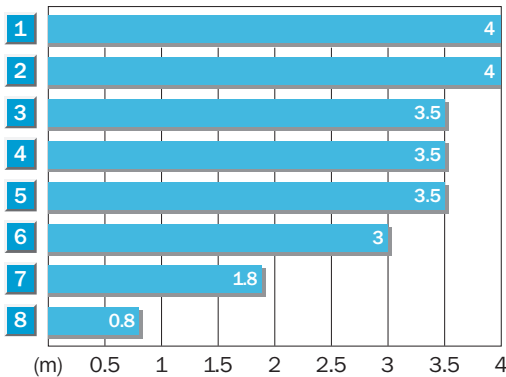
**SICK**  
Sensor Intelligence.



Technical data		WL12G-3	B2531	02431										
<b>Scanning range max.</b>	0 ... 4 m													
Relating to	Reflector PL80A													
Sensitivity adjustment	Potentiometer (11 turn)													
<b>Light source, light type</b>	LED, Red light, 640 nm <sup>1)</sup>													
Light spot diameter	Approx. 25 mm at 1.5 m distance													
Angle of dispersion	Approx. 1.5°													
Polarisation filter	✓													
<b>Supply voltage V<sub>s</sub></b>	DC 10 ... 30 V <sup>2)</sup>													
Ripple	≤ 5 V <sub>pp</sub> <sup>3)</sup>													
Power consumption	≤ 30 mA <sup>4)</sup>													
<b>Switching outputs</b>	Q <sub>PNP</sub> and Q <sub>NPN</sub>													
	PNP													
Signal voltage PNP HIGH/LOW	> V <sub>s</sub> - 3 V / approx. 0 V													
Signal voltage NPN HIGH/LOW	Approx. > V <sub>s</sub> / < 3 V													
Switching mode	Light-/dark-switching, switchable <sup>5)</sup>													
Output current I <sub>a</sub> max	100 mA													
Response time	≤ 330 μs <sup>6)</sup>													
Switching frequency	1,500 Hz <sup>7)</sup>													
<b>Connection type</b>	Connector, M12, 5-pin													
	Connector, M12, 4-pin													
<b>VDE protection class</b>	□ <sup>8)</sup>													
<b>Circuit protection</b>	V <sub>s</sub> connections reverse-polarity protected / All outputs short-circuit protected / Interference suppression													
<b>Enclosure rating</b>	IP 66, IP 67, IP 69 K													
<b>Ambient temperature operation</b>	-40 °C ... +60 °C													
<b>Ambient temperature storage</b>	-40 °C ... +75 °C													
<b>Weight</b>	Approx. 120 g													
<b>Housing material</b>	Zinc die-cast <sup>9)</sup>													

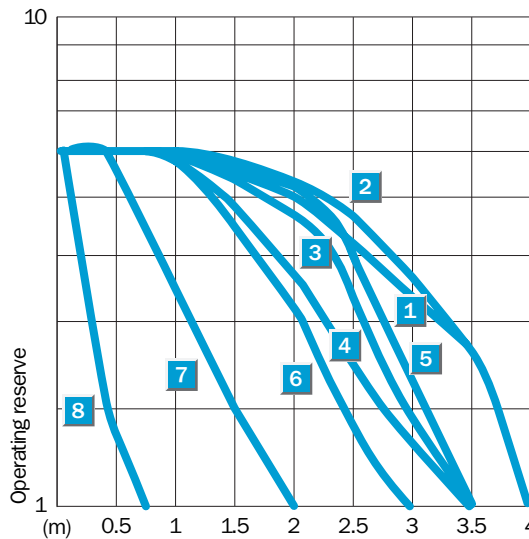
1) Average service life 100,000 h at T<sub>a</sub> = +25 °C  
 2) Limit values, operation in short-circuit protected network max. 8 A  
 3) May not exceed or fall short of V<sub>s</sub> tolerances  
 4) Without load  
 5) Control cable 0 V or open-circuited = light-switching. Control cable V<sub>s</sub> = dark-switching  
 6) Signal transit time with resistive load  
 7) With light/dark ratio 1:1  
 8) Reference voltage 50 V DC  
 9) Teflon-coated housing available on request

**Scanning range**



■ Scanning range max.

Reflektor type	scanning range max.	
1	PL80A	0 ... 4.0 m
2	C110A	0 ... 4.0 m
3	P250F	0 ... 3.5 m
4	PL50A	0 ... 3.5 m
5	PL40A	0 ... 3.5 m
6	PL30A	0 ... 3.0 m
7	PL20A	0 ... 1.8 m
8	Reflective tape Diamond Grade	0 ... 0.8 m



Order information	
Type	Order no.
WL12G-3B2531	1041456
WL12G-302431	1041457