




# W 11: Economic and Reliable

	Photoelectric proximity switch BGS
	Photoelectric proximity switch ener.
	Photoelectric reflex switch

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



All W11 sensors have visible red sender diodes as standard. This visible light spot allows the sensors to align with the object rapidly and reliably. The 4-pole M12 device plug or the 2 m cable are also included in the standard option, as well as the 800 Hz switching frequency or the short-circuit protected switching outputs. The WL11 UC photoelectric reflex switch probably offers today's most compact photoelectric switch with relay output.

The essential requirements of a sensor in standard applications are economy and reliability. Series

W11 fulfils these requirements.

W11 options:

- Photoelectric reflex switch WL11 with 7 m range,
- Photoelectric reflex switch WL11 "Glass detection" with maximum range 4 m,
- Photoelectric proximity switch with background suppression and maximum scanning distance 250 mm,
- Photoelectric proximity switch with foreground suppression and maximum scanning distance 100 mm,
- Energetic photoelectric proximity switch with maximum scanning distance 1000 mm.

The Series W11 sensors fulfil the test requirements of

**ECOLAB**

ECOLAB certifies that material resistance tests with cleaning agents and disinfectants in common use in the food-processing sector, were successfully completed.

Thanks to their reliability W11 sensors are routinely installed in typical application areas, such as the packaging industry, food and drinks, and the electronics and textile industries.

▼ Reliable detection of transparent objects like e.g. bottles with WL11G photoelectric reflex switch.



▲ WL11 Easy monitoring of doors and gates with WL11 photoelectric reflex switch.

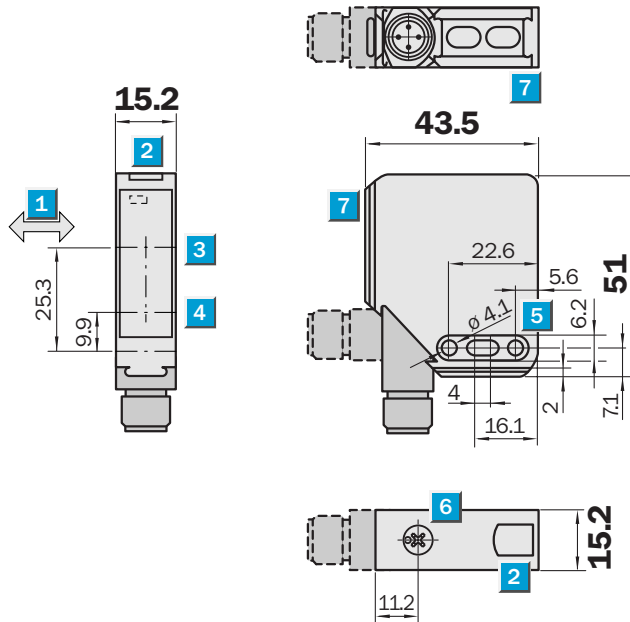
◀ WL11 as trigger reflex switch. In presence of available products a bar code scanner is activated.

**Scanning distance**  
35 ... 100 mm

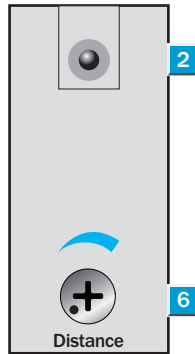
Photoelectric proximity switch

- Red light
- Insensitive to ambient light sources
- M12 plug rotatable by 90° or 2 m cable
- Adjustable foreground suppression
- ECOLAB material resistance tests

Dimensional drawing



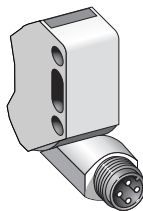
Adjustments possible



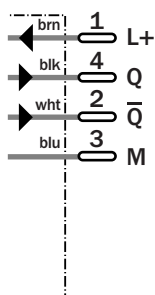
- 1 Standard direction of the material being scanned
- 2 LED signal strength indicator
- 3 Optical axis sender
- 4 Optical axis receiver
- 5 Mounting holes  $\varnothing$  4.1 mm
- 6 Scanning distance adjuster
- 7 Dovetail

Connection type

WT11-P440



M12, 4-pin



See chapter Accessories

Connector, M12, 4-pin

Mounting systems

Technical specifications		WT11-	P440										
Operating distance	35 ... 100 mm												
Adjustment of operating distance	Potentiometer												
Light source, light type	LED, Red light <sup>1)</sup>												
Supply voltage $V_s$	10 ... 30 V DC <sup>2)</sup>												
Ripple	$\leq 5 V_{ss}$ <sup>3)</sup>												
Power consumption	$\leq 30 \text{ mA}$ <sup>4)</sup>												
Switching outputs	PNP antivalent												
Output current $I_a$ max	$< 100 \text{ mA}$												
Response time	$\leq 625 \mu\text{s}$ <sup>5)</sup>												
Switching frequency	800 Hz <sup>6)</sup>												
Connection type	Connector, M12, 4-pin												
VDE protection class	$\square$ <sup>7)</sup>												
Circuit protection	$V_s$ connections reverse-polarity protected / Output Q and Q not short-circuit protected / Interference suppression												
Enclosure rating	IP 65												
Ambient temperature operation	-20 °C ... +60 °C												
Ambient temperature storage	-20 °C ... +75 °C												
Housing material	ABS												

<sup>1)</sup> Average service life 100,000 h at  $T_a = +25 \text{ °C}$

<sup>2)</sup> Limit values

<sup>3)</sup> may not exceed or fall short of

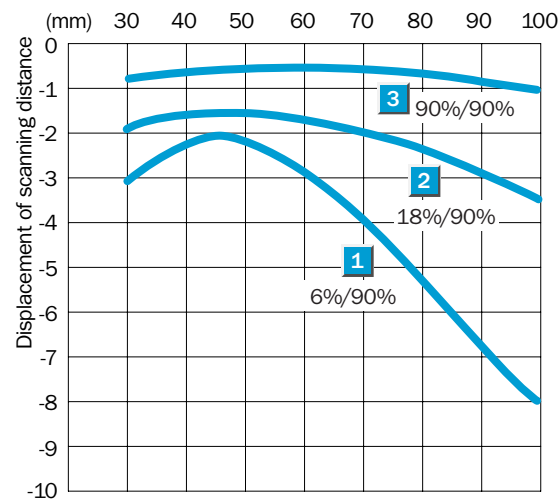
$V_s$  tolerances  
<sup>4)</sup> without load

<sup>5)</sup> Signal transit time with resistive load

<sup>6)</sup> with light/dark ratio 1:1

<sup>7)</sup> Reference voltage 50 V DC

**Scanning distance**



**Order information**

Type	Order No.
WT11-P440	1 022 049