

Photoelectric reflex switch, WL12G-3, for transparent objects, red light

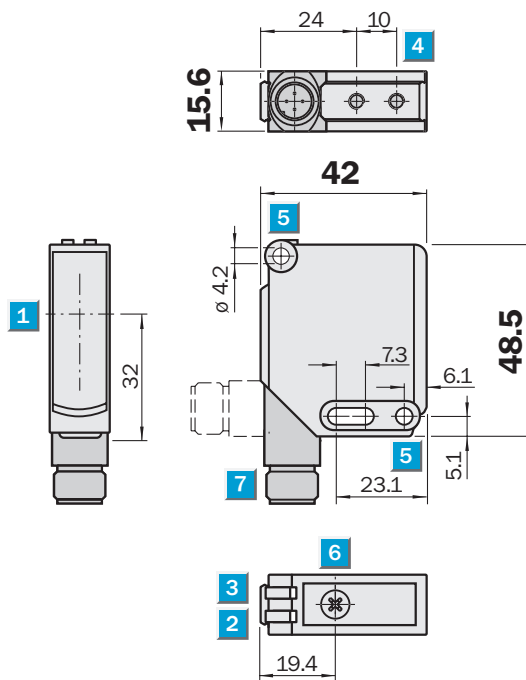
Scanning range
0 ... 4 m

Photoelectric reflex switch

- Robust metal housing with dovetail mounting clamps
- Reliable detection of glass and transparent films
- Adjustable sensitivity
- High device availability in industrial environments
- Range between -40 °C ... +60 °C



Dimensional drawing



Adjustments possible

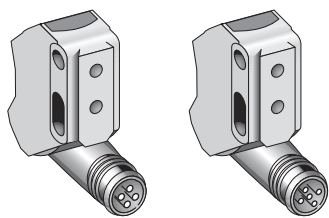


- 1 Optical axis
- 2 LED indicator yellow, status: light reception
- 3 LED indicator green, supply voltage active
- 4 Mounting thread M4 – 4 mm deep
- 5 Mounting thread, Ø 4.2 mm
- 6 Scanning range adjuster, potentiometer
- 7 Connection



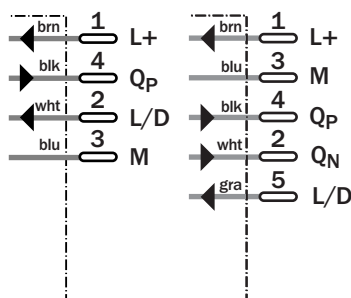
Connection type

WL12G-302431 WL12G-3B2581



M12, 4-pin

M12, 5-pin



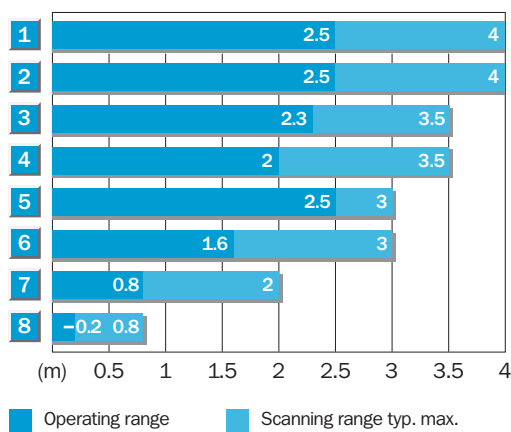
Accessories

- Connector, M12, 4-pin
- Connector, M12, 5-pin
- Mounting systems

Technical data		WL12G-3	B2531	02431
Scanning range typ. max.	0 ... 4 m			
Scanning range, recommended	0 ... 2.5 m			
Relating to	Reflector PL80A			
Sensitivity adjustment	Potentiometer (11 turn)			
Light source, light type	LED, Red light, 640 nm ¹⁾			
Light spot diameter	Approx. 25 mm at 1.5 m distance			
Angle of dispersion	Approx. 1.5°			
Polarisation filter	✓			
Supply voltage V_s	DC 10 ... 30 V ²⁾			
Ripple	≤ 5 V _{pp} ³⁾			
Power consumption	≤ 30 mA ⁴⁾			
Switching outputs	Q _{PNP} and Q _{NPN}			
	PNP			
Signal voltage PNP HIGH/LOW	> V _s - 3 V/approx. 0 V			
Signal voltage NPN HIGH/LOW	Approx. > V _s / < 3 V			
Switching mode	Light-/dark-switching, switchable ⁵⁾			
Output current I _a max	100 mA			
Response time	≤ 330 μs ⁶⁾			
Switching frequency	1,500 Hz ⁷⁾			
Connection type	Connector, M12, 5-pin			
	Connector, M12, 4-pin			
VDE protection class	□ ⁹⁾			
Circuit protection	V _s connections reverse-polarity protected/All outputs short-circuit protected/Interference suppression			
Enclosure rating	IP 66, IP 67, IP 69 K			
Ambient temperature operation	-40 °C ... +60 °C			
Ambient temperature storage	-40 °C ... +75 °C			
Weight	Approx. 120 g			
Housing material	Zinc die-cast ⁹⁾			

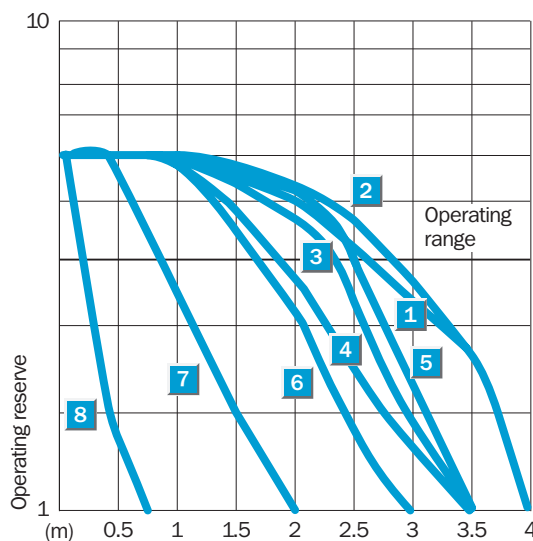
1) Average service life 100,000 h at T_a = +25 °C
 2) Limit values, operation in short-circuit protected network max. 8 A
 3) May not exceed or fall short of V_s tolerances
 4) Without load
 5) Control cable 0 V or open-circuited = light-switching. Control cable V_s = dark-switching
 6) Signal transit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

Scanning range and operating reserve



Reflector type	Operating range
1 PL80A	0 ... 2.5 m
2 C110A	0 ... 2.5 m
3 P250F	0 ... 2.3 m
4 PL50A	0 ... 2.0 m
5 PL40A	0 ... 2.5 m
6 PL30A	0 ... 1.6 m
7 PL20A	0 ... 0.8 m
8 Reflective tape Diamond Grade	0 ... 0.2 m

2008-07-21



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

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