Online data sheet

WLG4-3F3182

W4-3 Glass

MINIATURE PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

Ordering information

Type	Part no.
WLG4-3F3182	1028135

Other models and accessories ➜ www.sick.com/W4-3_Glass

Detailed technical data

Features

Sensor/ detection principle	Photoelectric retro-reflective sensor
Dimensions (W x H x D)	16 mm x 39.5 mm x 12 mm
Housing design (light emission)	Rectangular
Sensing range max.	0.01 m ... 1.6 m [1]
Sensing range	0.02 m ... 0.9 m [1]
Type of light	Visible red light
Light source	PinPoint LED [2]
Light spot size (distance)	Ø 75 mm (1.5 m)
Wave length	650 nm
Adjustment	Single teach-in button
AutoAdapt	✓
Special applications	Detecting transparent objects
Special features	Without polarisation filter

[1] Reflector PL80A.

[2] Average service life: 100,000 h at T_U = +25 °C.

Mechanics/electronics

Supply voltage	10 V DC ... 30 V DC [1]
Ripple	< 5 V_{pp} [2]
Power consumption	20 mA [3]
Switching output	PNP
Switching mode	Dark switching
Output current $I_{max.}$	≤ 100 mA
Response time	< 0.5 ms [4]
Switching frequency	1,000 Hz [5]
Angle of reception	Approx. 30°
Attenuation along light beam	> 8 %
Connection type	Cable with connector M8, 3-pin, 100 mm [6]
Cable material	PVC
Conductor cross-section	0.14 mm²
Cable diameter	Ø 3.4 mm
Circuit protection	A [7] C [8] D [9]
Protection class	III
Weight	30 g
Housing material	Plastic, ABS
Optics material	Plastic, PMMA
Enclosure rating	IP67 IP66
Special feature	Detecting transparent objects
Ambient operating temperature	–40 °C ... +60 °C
Ambient storage temperature	–40 °C ... +75 °C

[1] Limit values.
[2] May not exceed or fall below U_V tolerances.
[3] Without load.
[4] Signal transit time with resistive load.
[5] With light/dark ratio 1:1.
[6] Do not bend below 0 °C.
[7] A = V_S connections reverse-polarity protected.
[8] C = interference suppression.
[9] D = outputs overcurrent and short-circuit protected.

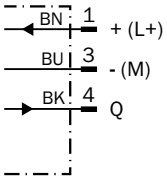
Classifications

ECl@ss 5.0	27270902
ECl@ss 5.1.4	27270902
ECl@ss 6.0	27270902
ECl@ss 6.2	27270902
ECl@ss 7.0	27270902
ECl@ss 8.0	27270902

ECl@ss 8.1	27270902
ECl@ss 9.0	27270902
ETIM 5.0	EC002717
ETIM 6.0	EC002717
UNSPSC 16.0901	39121528

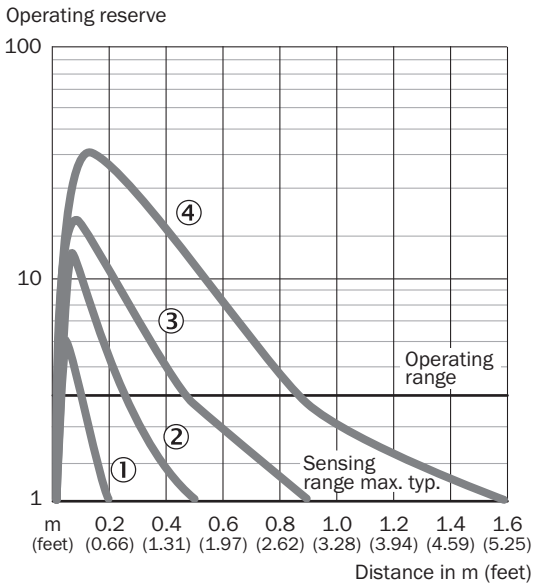
Connection diagram

Cd-045



Characteristic curve

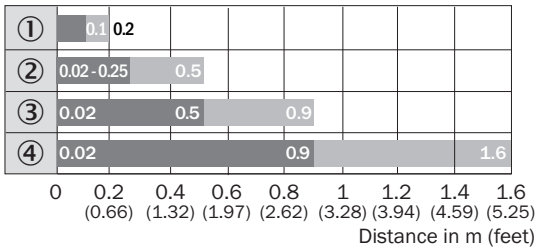
WLG4-3 without polarisation filter



① PL10F reflector
② Reflector PL20A
③ Reflector PL40A
④ Reflector PL80A

Sensing range diagram

WLG4-3 without polarisation filter



Sensing range

Sensing range max.

① PL10F reflector
② Reflector PL20A
③ Reflector PL40A
④ Reflector PL80A

Modified teach mode

Geänderter Teach Modus
modified teach mode
WLG4-3

Bitte neuen Teach-In-Mode ab Herstellungswoche **01/2013** berücksichtigen.

Teach-In-Taste drücken:
- **2 Sek.** für transparente Objekte (8% Schaltschwelle mit autom. Nachführung)
- **8 Sek.** für Standardanwendungen (Schaltschwelle 50%)

Teach-In-Mode **vor** Herstellungswoche **01/2013**

Teach-In-Taste drücken:
- **2 Sek.** (50% Schaltschwelle ohne Nachführung)
- **8 Sek.** für transparente Objekte (Schaltschwelle 10%)

Please consider new teach-in mode as of production week **01/2013**.

Press teach-in button:
- **2 sec.** for clear objects (8% threshold with continuous threshold adaption)
- **8 sec.** for standard mode (50% threshold)

Teach-In-Mode **before** production week **01/2013**.

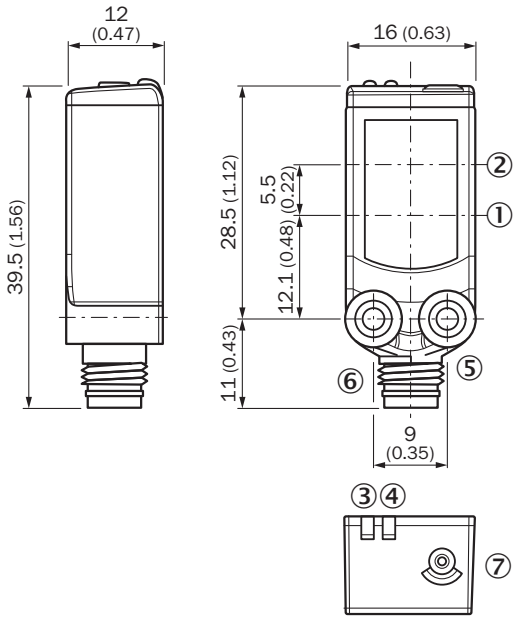
Press teach-in button:
- **2 sec.** (50% threshold without continuous threshold adaption)
- **8 sec.** for clear objects (threshold 10%)

Bsp. Herstellungswoche 1309 = KW09/2013
eg production week 1309 = CW09/2013

SICK
Sensor Intelligence.

Dimensional drawing (Dimensions in mm (inch))

WLG4-3



① Center of optical axis, sender
② Center of optical axis, receiver
③ Orange LED indicator: status of received light beam
④ LED indicator green: Supply voltage active
⑤ Threaded mounting hole M3
⑥ Connection
⑦ Teach-in button

Recommended accessories

Other models and accessories ➜ www.sick.com/W4-3_Glass

	Brief description	Type	Part no.
Universal bar clamp systems			
	Plate N08 for universal clamp bracket, Zinc plated steel (sheet), Zinc die cast (clamping bracket), Universal clamp (5322626), mounting hardware	BEF-KHS-N08	2051607
Mounting brackets and plates			
	Universal mounting bracket for reflectors, steel, zinc coated	BEF-WN-REFX	2064574
Plug connectors and cables			
	Head A: female connector, M8, 3-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF8U13-050VA1XLEAX	2095884
	Head A: male connector, M8, 3-pin, straight Head B: - Cable: unshielded	STE-0803-G	6037322

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com