

1) Sensitivity, 2) Light-on/dark-on, 3) Optical axis, 4) Output function



### Basic features

<b>Approval/Conformity</b>	cULus CE UKCA WEEE
<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Fork sensor
<b>Series</b>	A
<b>Style</b>	Fork Straight connection

### Electrical connection

<b>Connection</b>	Connector, M8x1-Male, 3-pin
<b>Contact, surface protection</b>	Gold plated
<b>Polarity reversal protected</b>	yes
<b>Short-circuit protection</b>	yes

### Display/Operation

<b>Adjuster</b>	Potentiometer 270° (2x)
<b>Display</b>	Output function- LED yellow
<b>Setting</b>	Light-on/dark-on Sensitivity

Photoelectric Sensors  
**BGL 10A-005-S49**  
**Order Code: BGL0003**



**Electrical data**

Load capacitance max. at Ue	0.5 µF
No-load current I <sub>o</sub> max. at Ue	25 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Ready delay t <sub>v</sub> max.	200 ms
Residual current I <sub>r</sub> max.	50 µA
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	5000 Hz
Turn-off delay t <sub>off</sub> max.	0.1 ms
Turn-on delay t <sub>on</sub> max.	0.1 ms
Utilization category	DC -13
Voltage drop U <sub>d</sub> max. at I <sub>e</sub>	3 V

**Environmental conditions**

Ambient temperature	-10...60 °C
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

**Interface**

Switching output	PNP normally open/normally closed (NO/NC)
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**Material**

Housing material	Zinc, Die casting, Painted
Material sensing surface	Glass
Surface protection	Painted

**Mechanical data**

Dimension	10 x 30 x 54 mm
Fork opening	10 mm
Mounting part	Screw M4

**Optical features**

Ambient light max.	5000 Lux
Beam characteristic	Divergent
Light spot size	Ø 1.0 mm Light exit
Light type	microSPOT-LED red light
Principle of optical operation	Through-beam sensor
Smallest part typ.	0.2 mm
Switching function, optical	dark-on/light-on
Wave length	640 nm

**Range/Distance**

Hysteresis H max.	0.07 mm
Repeat accuracy lateral max.	20 µm

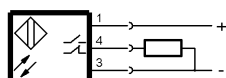
**Remarks**

Order accessories separately.  
 For additional information, refer to user's guide.  
 Factory default setting for switching output: Normally open.  
 Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral approach.  
 The sensor is functional again after the overload has been eliminated.  
 Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.

**Connector Drawings**



**Wiring Diagrams**



## Opto Symbols

