



1) Optical axis, 2) Sensitivity, 3) Light-on/dark-on, 4) Output function, 5) Operating voltage



### Basic features

<b>Approval/Conformity</b>	CE UKCA cULus 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 LED green: Power
<b>Setting</b>	Light-on/dark-on Sensitivity

Photoelectric Sensors  
**BGL 220A-007-S49**  
Order Code: BGL0014

**BALLUFF**

### Electrical data

Load capacitance max. at Ue	1 µF
No-load current I <sub>0</sub> max. at Ue	35 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	2000 Hz
Turn-off delay t <sub>off</sub> max.	0.25 ms
Turn-on delay t <sub>on</sub> max.	0.25 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

### Functional safety

MTTF (40 °C)	300 a
--------------	-------

### Interface

Switching output	PNP normally open/normally closed (NO/NC)
------------------	---

### Material

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

### Mechanical data

Dimension	10 x 240 x 153 mm
Fork opening	220 mm
Mounting part	Screw M4

### Optical features

Ambient light max.	5000 Lux
Beam characteristic	Divergent
Light spot size	Ø 2.5 mm Light exit
Light type	Infrared
Principle of optical operation	Through-beam sensor
Smallest part typ.	1.50 mm
Switching function, optical	dark-on/light-on
Wave length	880 nm

### Range/Distance

Hysteresis H max.	0.5 mm
Repeat accuracy lateral max.	200 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.

For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

### Connector Drawings



## Wiring Diagrams



## Opto Symbols

