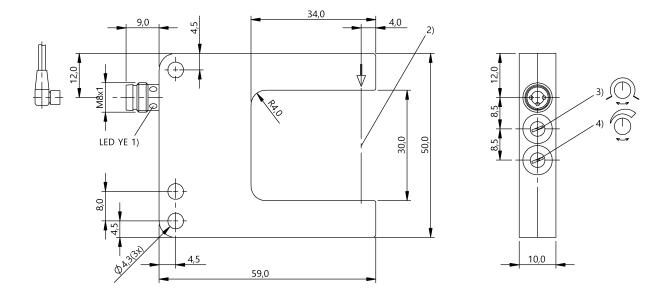
# Photoelectric Sensors BGL 30A-001-S49 Order Code: BGL0016





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



### **Basic features**

Approval/Conformity CE cULus EAC WEEE IEC 60947-5-2 **Basic standard** Principle of operation Fork sensor Series А Fork Style Straight connection Trademark Global

## **Electrical connection**

Connection	Connector, M8x1-Male, 3-pin
Contact, surface protection	Gold plated
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

## **Display/Operation**

Adjuster	Po
Display	Ou
Setting	Se
	Lio

Potentiometer 270° (2x) Output function- LED yellow Sensitivity Light-on/dark-on

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Electrical data		Interface	
Load capacitance max. at Ue	1 μF	Switching output	PNP normally open/normally
No-load current lo max. at Ue	35 mA		closed (NO/NC)
Operating voltage Ub	1030 VDC		
Rated insulation voltage Ui	75 V DC	Material	
Rated operating current le	200 mA	Housing material	Zinc, Die casting, Painted
Rated operating voltage Ue DC	24 V	Material sensing surface	Glass
Ready delay tv max.	200 ms	Surface protection	Painted
Residual current Ir max.	50 μΑ	Surface protection	Fained
Ripple max. (% of Ue)	10 %		
Switching frequency	1500 Hz	Mechanical data	
Turn-off delay toff max.	0.333 ms	Dimension	10 x 50 x 68 mm
Turn-on delay ton max.	0.333 ms	Fork opening	30 mm
Utilization category	DC -13	Mounting part	Screw M4
Voltage drop Ud max. at le	3 V		
		<b>Optical features</b>	
Environmental conditior	IS	Ambient light max.	5000 Lux
Ambient temperature	-1060 °C	Beam characteristic	Divergent
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6	Light spot size	Ø 1.2 mm Light exit
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min	Light type	LED, red light
IP rating	IP67	Principle of optical operation	Through-beam sensor
		Smallest part typ.	0.30 mm
Functional safety		Switching function, optical	dark-on/light-on
MTTF (40 °C)	307 a	Wave length	636 nm
		Range/Distance	
		Hysteresis H max.	0.1 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.

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.

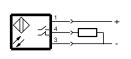
## **Connector Drawings**



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# BALLUFF

Wiring Diagrams



**Opto Symbols** 

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