

1) Output function/Error, 2) Output mode, recvr., L/D, 3) Error, 4) Output curve rising/falling, 5) Pneumatics connection PK-3



## Basic features

<b>Additional features</b>	Contamination compensation to up to 10% loss in intensity.
<b>Approval/Conformity</b>	CE UKCA WEEE
<b>Basic standard</b>	IEC 60947-5-2
<b>Principle of operation</b>	Fork sensor
<b>Series</b>	C
<b>Style</b>	Fork Straight connection

## Display/Operation

<b>Adjuster</b>	Key (2x)
<b>Display</b>	Output function- LED yellow Error - 2 x LED yellow, flashing
<b>Setting</b>	Switching/error output Output curve rising/falling Sensitivity Light-on/dark-on

## Electrical connection

<b>Connection</b>	Connector, M12x1-Male, 4-pin
<b>Polarity reversal protected</b>	yes
<b>Short-circuit protection</b>	yes

## Electrical data

<b>Load capacitance max. at Ue</b>	2.2 $\mu$ F
<b>Load resistance RL max. (Analog I)</b>	600 ohms
<b>No-load current Io max. at Ue</b>	30 mA
<b>Operating voltage Ub</b>	18...30 VDC
<b>Rated operating current Ie</b>	100 mA
<b>Rated operating voltage Ue DC</b>	24 V
<b>Ready delay tv max.</b>	100 ms
<b>Ripple max. (% of Ue)</b>	10 %
<b>Switching frequency</b>	500 Hz
<b>Turn-off delay toff max.</b>	1 ms
<b>Turn-on delay ton max.</b>	1 ms
<b>Utilization category</b>	DC -13
<b>Voltage drop Ud max. at Ie</b>	1 V

Photoelectric Sensors  
**BGL 50C-003-S4**  
**Order Code: BGL0039**



**Environmental conditions**

<b>Ambient temperature</b>	-5...55 °C
<b>EN 60068-2-27, Shock</b>	Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6
<b>EN 60068-2-6, Vibration</b>	55 Hz, amplitude 1 mm, 3x30 min
<b>IP rating</b>	IP65

**Interface**

<b>Analog output</b>	Analog, current 4...20 mA
<b>Supplementary output</b>	Error output PNP
<b>Switch function, supplementary output</b>	NO/NC
<b>Switching output</b>	PNP normally open/normally closed (NO/NC)

**Material**

<b>Housing material</b>	Aluminium, Anodized
<b>Material sensing surface</b>	PMMA
<b>Surface protection</b>	Anodized

**Mechanical data**

<b>Dimension</b>	18 x 100 x 93.5 mm
<b>Fork opening</b>	50 mm
<b>Mounting part</b>	Screw M5

**Optical features**

<b>Ambient light max.</b>	5000 Lux
<b>Beam characteristic</b>	Divergent
<b>LED group per IEC 62471</b>	Exempt Group
<b>Light beams, number</b>	10
<b>Light spot size</b>	3 x 28 mm Light exit
<b>Light type</b>	LED, red light
<b>Principle of optical operation</b>	Through-beam sensor
<b>Special optical feature</b>	Light array
<b>Switching function, optical</b>	dark-on/light-on
<b>Wave length</b>	633 nm

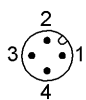
**Range/Distance**

<b>Active length AL 1</b>	28 mm
<b>Hysteresis H max.</b>	0.4 mm
<b>Repeat accuracy lateral max.</b>	150 µm
<b>Resolution</b>	≤ 0.08 mm

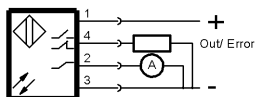
**Remarks**

For additional information, refer to user's guide.  
 Order accessories separately.  
 Do not press key using a pointed tool.  
 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.

**Connector Drawings**



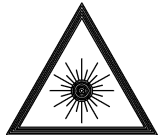
**Wiring Diagrams**



## Opto Symbols



## Warning Symbols



LED light– DO NOT LOOK INTO THE BEAM!

Exempt Group per IEC 62471:2006-07