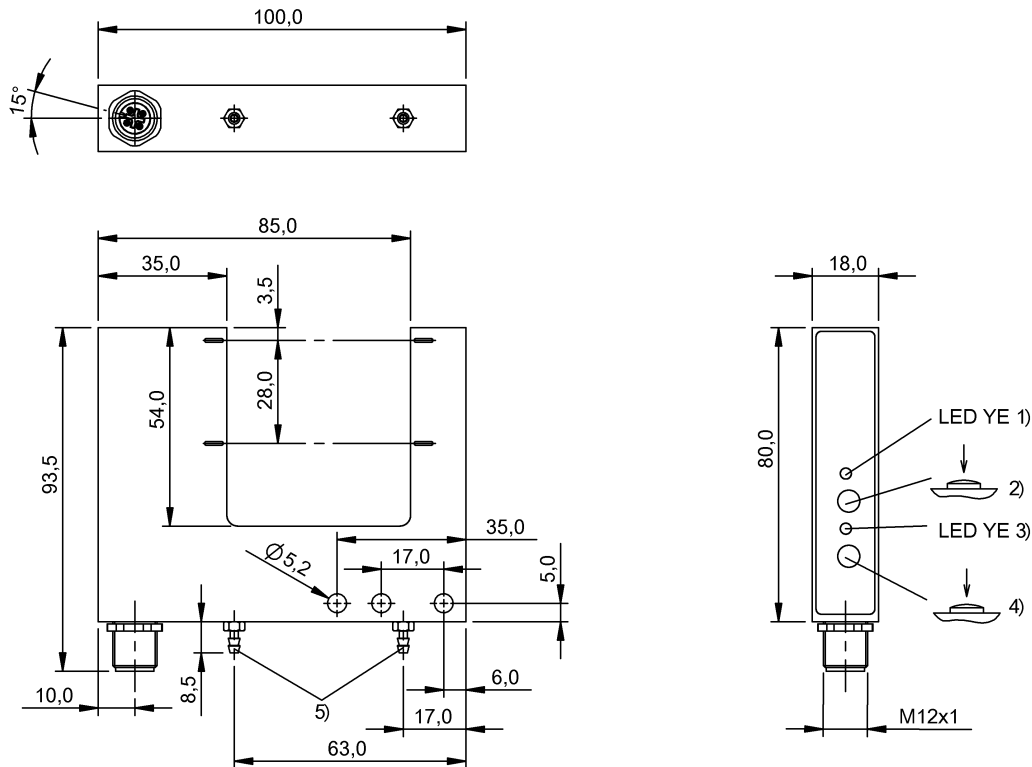


## BGL 50C-001-S4 BGL0037



1) Q1 active / error 2) Q1: recvr., light/dark 3) Q2 active / error 4) Q2: recvr., light/dark 5) Pneumatics connection PK-3



### Display/Operation

|          |                                 |
|----------|---------------------------------|
| Adjuster | Key (2x)                        |
| Setting  | Sensitivity<br>Light-on/dark-on |

### Electrical connection

|                             |                                  |
|-----------------------------|----------------------------------|
| Connection                  | M12x1-Connector, 4-pole, A-coded |
| Polarity reversal protected | yes                              |
| Short-circuit protection    | yes                              |

### Electrical data

|                                           |             |
|-------------------------------------------|-------------|
| Hysteresis H max.                         | 0.4 mm      |
| Load capacitance max. at Ue               | 2.2 µF      |
| No-load current I <sub>o</sub> max. at Ue | 30 mA       |
| Operating voltage U <sub>b</sub>          | 18...30 VDC |
| Rated operating current I <sub>e</sub> DC | 100 mA      |
| Rated operating voltage U <sub>e</sub> DC | 24 V        |
| Ready delay t <sub>v</sub> max.           | 100 ms      |
| Repeat accuracy lateral max.              | 150 µm      |
| Switching frequency                       | 500 Hz      |
| Turn-off delay t <sub>off</sub> max.      | 1 ms        |

|                                                    |        |
|----------------------------------------------------|--------|
| Turn-on delay t <sub>on</sub> max.                 | 1 ms   |
| Utilization category                               | DC -13 |
| Voltage drop U <sub>d</sub> max. at I <sub>e</sub> | 1 V    |

### Environmental conditions

|                           |            |
|---------------------------|------------|
| Ambient temperature       | -5...55 °C |
| Protection type IEC 60529 | IP67       |

### General data

|                     |                                                            |
|---------------------|------------------------------------------------------------|
| Additional features | Contamination compensation to up to 10% loss in intensity. |
| Approval/Conformity | CE                                                         |
| Basic standard      | IEC 60947-5-2                                              |
| Series              | C                                                          |
| Style               | Fork<br>Straight connection                                |

### Material

|                          |          |
|--------------------------|----------|
| Housing material         | Aluminum |
| Material sensing surface | PMMA     |
| Surface protection       | anodized |

## BGL 50C-001-S4 BGL0037

### Mechanical data

|                  |                    |
|------------------|--------------------|
| Dimension        | 18 x 100 x 93.5 mm |
| Fastening detail | Screw M5           |
| Fork opening     | 50 mm              |

### Optical data

|                                |                     |
|--------------------------------|---------------------|
| Ambient light max.             | 5000 Lux            |
| Beam characteristic            | Divergent           |
| LED group per IEC 62471        | Exempt Group        |
| Light beams, number            | 10                  |
| Light type                     | LED Red light       |
| Principle of optical operation | Through-beam sensor |
| Special optical feature        | Light array         |
| Wave length                    | 633 nm              |

### Output/Interface

|                  |                                              |
|------------------|----------------------------------------------|
| Switching output | 2x PNP Normally open/Normally closed (NO/NC) |
|------------------|----------------------------------------------|

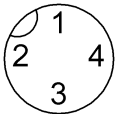
### Range/Distance

|                       |           |
|-----------------------|-----------|
| Active length AL 1    | 28 mm     |
| Resolution            | ≤ 0.08 mm |
| Ripple max. (% of Ue) | 10 %      |

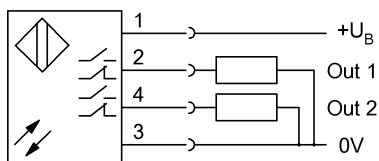
### Remarks

The sensor is functional again after the overload has been eliminated.  
Reference object (target): Steel plate, 50 x 50, thickness 0.5 mm, lateral approach.  
For additional information, refer to user's guide.  
Order accessories separately.  
Do not press key using a pointed tool.

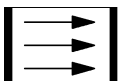
### Connector view



### Wiring Diagram

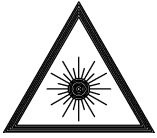


### Symbols for Optoelectronic Sensors



BGL 50C-001-S4  
BGL0037

## Warning Symbols



LED light– DO NOT LOOK INTO THE BEAM!

Exempt Group per IEC 62471:2006-07