

## Basic features

|                            |   |
|----------------------------|---|
| <b>Approval/Conformity</b> | TÜV<br>cULus<br>CE<br>WEEE                  |
| <b>Basic standard</b>      | IEC 61496-2                                 |
| <b>Operating principle</b> | non-contact (photoelectric)                 |
| <b>Scope of delivery</b>   | 1 Emitter + 1 Receiver<br>Mounting material |
| <b>Series</b>              | BLG 4A ...-014-...                          |
| <b>Style</b>               | Rectangular                                 |
| <b>Version</b>             | Safety light curtain                        |

## Electrical connection

|  |                               |
|--|-------------------------------|
| <b>Connection 1</b>                      | Emitter: M12x1-Male, A-coded  |
| <b>Connection 2</b>                      | Receiver: M12x1-Male, A-coded |
| <b>Polarity reversal protected</b>       | yes                           |
| <b>Protection against device mix-ups</b> | yes                           |

## Electrical data

|   |                         |
|---|-------------------------|
| <b>Burst</b>                                    | 2 kV (EN 61000-4-4)     |
| <b>ESD</b>                                      | 8 kV contact, 15 kV air |
| <b>Emission</b>                                 | EN 55022, Class A       |
| <b>IVW (surge)</b>                              | 2 kV (EN 61000-4-5)     |
| <b>Line-induced noise</b>                       | 30V (EN 61000-4-6)      |
| <b>Load capacitance max. at Ue</b>              | 2.2 µF                  |
| <b>Operating voltage U<sub>b</sub></b>          | 19.2...28.8 VDC         |
| <b>Output current max.</b>                      | 500 mA                  |
| <b>Overload protection</b>                      | 1.4 A max.              |
| <b>Protection class</b>                         | III                     |
| <b>RFI</b>                                      | 30 V/m (EN 61000-4-3)   |
| <b>RFI 2000...3000 MHz</b>                      | 3 V/m (EN 61000-4-3)    |
| <b>Rated operating voltage U<sub>e</sub> DC</b> | 24 V                    |

## Environmental conditions

|                                |   |
|--------------------------------|---|
| <b>Ambient temperature</b>     | 0...55 °C                                 |
| <b>EN 60068-2-27, Shock</b>    | 16 ms (10 G)<br>1000 shocks/axis          |
| <b>EN 60068-2-6, Vibration</b> | Amplitude 0.35 mm<br>Frequency 10...55 Hz |
| <b>IP rating</b>               | IP65                                      |
| <b>Relative humidity</b>       | 15...95 %, non-condensing                 |
| <b>Storage temperature</b>     | -25...70 °C                               |

Opto-electronic protec. device  
**BLG 4A-045-600-014-O01-SX**  
**Order Code: BLG000E**

**BALLUFF**

**Functional safety**

|  |              |
|--|--------------|
| AOPD type (active opto-electronic protective device) | 4            |
| Device type (VDMA 66413)                             | 1            |
| HFT - Hardware failure tolerance (EN 62061)          | 1            |
| MTTFd  | 444 a        |
| Mission Time   | 20 a         |
| PFHd (EN 62061)                                      | 2.64 E-9 1/h |
| Performance Level                                    | e            |
| SIL (IEC 61508)                                      | 3            |
| SIL CL (EN 62061)                                    | 3            |
| Safety category (EN ISO 13849-1)                     | 4            |

**Material**

|                          |                                     |
|--------------------------|-------------------------------------|
| Housing material         | Aluminum, painted (yellow RAL 1003) |
| Material sensing surface | PMMA                                |
| Surface protection       | painted (yellow RAL 1003)           |

**Mechanical data**

|           |                      |
|-----------|----------------------|
| Dimension | 32.3 x 533.2 x 37 mm |
| Mounting  | separate holder      |
| Weight    | 0.70 kg              |

**Optical features**

|                         |              |
|-------------------------|--------------|
| Ambient light           | IEC 61496-2  |
| Beam characteristic     | Divergent    |
| LED group per IEC 62471 | Exempt Group |
| Light beams, number     | 48           |
| Light type              | Infrared     |
| Wave length             | 950 nm       |

**Output/Interface**

|                  |             |
|------------------|-------------|
| Switching output | 2x PNP OSSD |
|------------------|-------------|

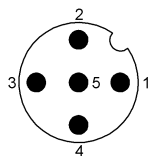
**Range/Distance**

|                              |        |
|------------------------------|--------|
| Detection capability         | 14 mm  |
| Protective field height (Hp) | 450 mm |
| Range                        | 6 m    |
| Response time max.           | 18 ms  |

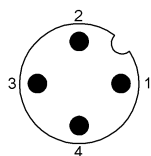
**Remarks**

Finger protection  
 Temperature class: T6 (TX/RX)  
 Leakage current: 2 mA  
 SELV/PELV power supply required

**Connector Drawings**

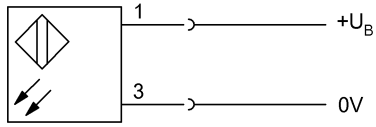


PIN 1: +24V  
 PIN 2: OSSD1  
 PIN 3: 0V  
 PIN 4: OSSD2  
 PIN 5: n.c.

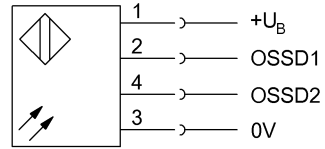


PIN 1: +24V  
 PIN 2: n.c.  
 PIN 3: 0V  
 PIN 4: n.c.

## Wiring Diagrams



1) Emitter



2) Receiver