

1) Operating voltage, 2) Optical axis



### Basic features

|                        |                               |
|------------------------|-------------------------------|
| Approval/Conformity    | cULus<br>CE<br>Ecolab<br>WEEE |
| Basic standard         | IEC 60947-5-2                 |
| Principle of operation | Photoelectric sensor          |
| Reference receiver     | BOS 6K...-RE10-..             |
| Series                 | 6K                            |
| Style                  | Square<br>Connection 90°      |

### Display/Operation

|         |                  |
|---------|------------------|
| Display | LED green: Power |
|---------|------------------|

### Electrical connection

|                                   |                      |
|-----------------------------------|----------------------|
| Cable diameter D                  | 3.50 mm              |
| Cable length L                    | 3 m                  |
| Conductor cross-section           | 0.14 mm <sup>2</sup> |
| Connection                        | Cable, 3 m, TPU      |
| Number of conductors              | 3                    |
| Polarity reversal protected       | yes                  |
| Protection against device mix-ups | yes                  |

### Electrical data

|   |             |
|---|-------------|
| No-load current I <sub>0</sub> max. at U <sub>e</sub> | 30 mA       |
| Operating voltage U <sub>b</sub>                      | 10...30 VDC |
| Protection class                                      | II          |
| Rated operating voltage U <sub>e</sub> DC             | 24 V        |
| Ripple max. (% of U <sub>e</sub> )                    | 12 %        |

### Environmental conditions

|                         |  |
|-------------------------|--|
| Ambient temperature     | -20...60 °C                                |
| EN 60068-2-27, Shock    | Half-sinus, 30 g <sub>n</sub> , 11 ms, 3x6 |
| EN 60068-2-6, Vibration | 10...55 Hz, amplitude 0.5 mm, 3x30 min     |
| IP rating               | IP67                                       |
| IP rating per DIN 40050 | IP69K                                      |

### Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 499 a |
|--------------|-------|

### Material

|                          |      |
|--------------------------|------|
| Housing material         | ABS  |
| Material jacket          | TPU  |
| Material sensing surface | PMMA |

### Mechanical data

|               |                     |
|---------------|---------------------|
| Dimension     | 12 x 37.4 x 21.6 mm |
| Mounting part | Screw M3            |

Photoelectric Sensors  
**BOS 6K-XR-RS10-PU-03**  
Order Code: BOS027J

# BALLUFF

## Optical features

|                                |                               |
|--------------------------------|-------------------------------|
| Beam characteristic            | Divergent                     |
| Light spot size                | 1200 x 1200 mm at 15 m        |
| Light type                     | LED, red light                |
| Principle of optical operation | Through-beam sensor (Emitter) |

Wave length 660 nm

## Range/Distance

|                             |                 |
|-----------------------------|-----------------|
| Range                       | 0...13 m        |
| Rated operating distance Sn | 13 m Adjustable |

## Remarks

For additional information, refer to user's guide.

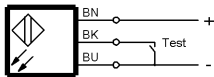
Order accessories separately.

When using as a UL product the ambient temperature Ta max. must not exceed 50°C.

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.

## Wiring Diagrams



## Opto Symbols

