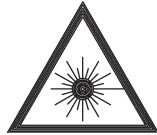
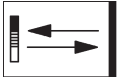


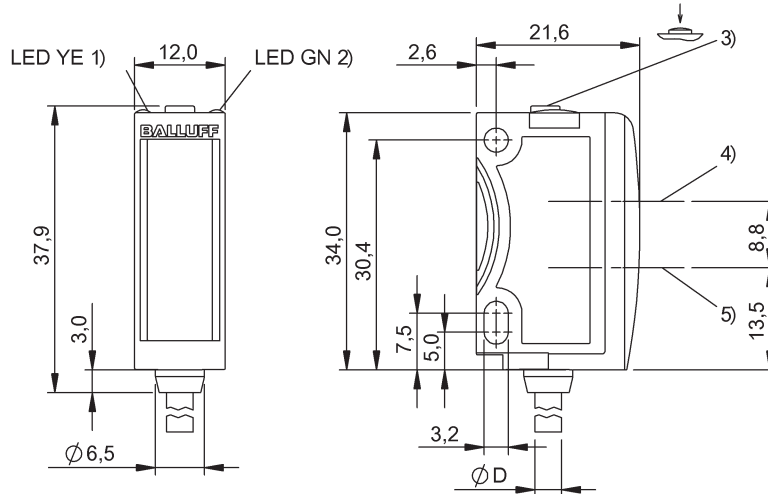
Contrast sensor

**BKT 6K-002-P-02**  
**BKT0012**

**BALLUFF**



LASER CLASS 1 per IEC 60825-1:  
2003-10



1) Output function 2) Power 3) Sensitiv., Light-on/Dark-on 4) Optical axis receiver 5) Optical axis emitter

- Contrast sensor
- Series 6K
- Laser red light
- 1...250 mm



**ECOLAB®**

**General attributes**

Adjuster Key (1x)  
 Approvals / Conformity cULus  
 CE  
 Ecoblab  
 Basic standard IEC 60947-5-2  
 Enclosure Type DIN 40050 IP69K  
 Enclosure Type per IEC 60529 IP67  
 Indicator Power - LED GN  
 LED YE 1) Output function - LED YE  
 LED GN 2) Key disable on/off  
 Same function as key  
 Yes  
 Series 6K  
 Light-on/dark-on  
 Contrast (switching point)  
 Teach-in mode stand./dyn./obj.  
 Yes  
 MTTF (40°C) 426 a

**Electrical attributes**

Connection type Cable  
 Eff. operating current Ie 100 mA  
 Eff. operating voltage Ue DC 24 V DC  
 Electrical version DC, direct current  
 No-load current max. Io at Ue 30 mA  
 Operating voltage UB max. DC [V] 30 V  
 Operating voltage UB min. DC [V] 10 V  
 Ripple max. (% of Ue) 12 %  
 Switching freq. f max. (at Ue) 1500 Hz  
 Switching function NO/NC  
 Switching output PNP (1x)  
 Turn on time ton max. 0.330 ms  
 Voltage drop Ud max. (at Ie) 2.4 V

**Mechanical attributes**

Ambient temperature Ta max. 60 °C  
 Ambient temperature Ta min. -20 °C  
 Cable diameter D max. 3.5 mm

Cable jacket material PVC  
 Cable length 2.0 m  
 Conductor cross-section 0.14 mm<sup>2</sup>  
 Housing material ABS  
 Length 1 12.0 mm  
 Length 2 21.6 mm  
 Length 3 37.9 mm  
 Mounting type Screw M3  
 Number of conductors 4  
 Sensing face material PMMA  
 Style Block, 90° connection

**Optical attributes**

Ambient light max. 5,000 Lux  
 Average power Po max. < 390 µW (IEC 60825-1)  
 Laser Class per IEC 60825-1 1  
 Light spot size, typical 0.7 mm x 0.7mm at 250 mm  
 Light type Laser red light  
 Principle of optical operation Light scanner, focused  
 Sensing range 1...250 mm  
 Switching function, optical Light-on/dark-on  
 Wavelength 650 nm

**Remarks**

Order accessories separately.  
 For additional information, refer to user's guide.  
 The sensor is functional again after the overload has been eliminated.  
 Reference object (target): Gray card, 100 x 100  
 90 % remission, axial approach.  
 Do not press key using a pointed tool.  
 For use as UL listed product the ambient temperature Ta max. may not exceed the value of 50 °C.

For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

Specification of the MTTF value and the B10d value do not represent any binding quality and/or life expectancy guarantees.

Contrast sensor

**BKT 6K-002-P-02**  
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