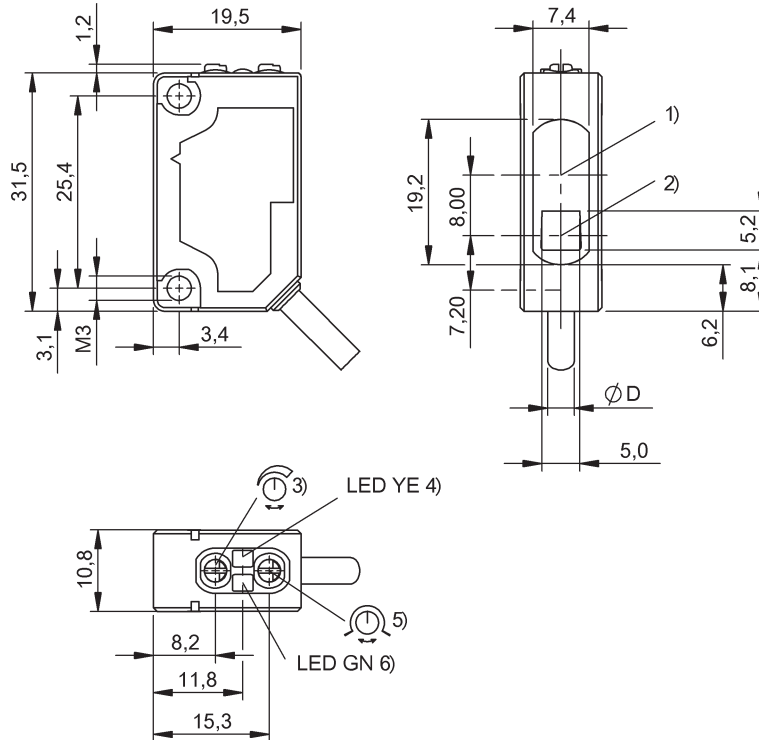


LASER CLASS 1 per IEC 60825-1:  
2003-10



1) Optical axis receiver 2) Optical axis emitter 3) Sensitivity 4) Output function 5) Light-on / Dark-on 6) Stability

- Photoelectric sensor
- Series 5K
- Laser red light
- up to 10 m



**General attributes**

Adjuster Potentiometer 270° (2x)  
 Approvals / Conformity CE  
 cULus  
 CDRH  
 Basic standard IEC 60947-5-2  
 Enclosure Type per IEC 60529 IP67  
 Indicator Stability - LED GN  
 Output function - LED YE  
 yes  
 BOS R-22  
 Series 5K  
 Sensitivity (Sn)  
 Light-on/dark-on  
 yes  
 Trademark GLOBAL

**Electrical attributes**

Connection type Cable  
 Eff. operating current I<sub>e</sub> 100 mA  
 Eff. operating voltage U<sub>e</sub> DC 24.0 V  
 Electrical version DC, direct current  
 No-load current max. I<sub>o</sub> at U<sub>e</sub> 35 mA  
 Operating voltage U<sub>B</sub> max. DC [V] 30.0 V  
 Operating voltage U<sub>B</sub> min. DC [V] 10.0 V  
 Ripple max. (% of U<sub>e</sub>) 10 %  
 Switching freq. f max. (at U<sub>e</sub>) 2000 Hz

Switching function NO/NC  
 Switching output PNP (1x)  
 Turn on time t<sub>on</sub> max. 0.25 ms  
 Voltage drop U<sub>d</sub> max. (at I<sub>e</sub>) 1.5 V

**Mechanical attributes**

Ambient temperature T<sub>a</sub> max. 55 °C  
 Ambient temperature T<sub>a</sub> min. -10 °C  
 Cable diameter D max. 3.5 mm  
 Cable jacket material PVC  
 Cable length 2.00 m  
 Conductor cross-section 0.20 mm<sup>2</sup>  
 Eff. operating distance S<sub>r</sub> 10000 mm  
 Housing material PC, PBT  
 Length 1 10.8 mm  
 Length 2 19.5 mm  
 Length 3 26.8 mm  
 Mounting type Screw M3  
 Number of conductors 3  
 Operating range R<sub>o</sub> 0...10 m  
 Range S<sub>n</sub> S<sub>n</sub> = 10 m, adjustable  
 Sensing face material PMMA  
 Style Block, 45° connection  
 Tightening torque max. 0.5 Nm

**Optical attributes**

Ambient light max. 5,000 Lux

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 Balluff USA 1-800-543-8390  
 Balluff China +86 (0) 21-50 644131

For definitions of terms, see main catalog BOS01JT\_221976\_17/10/15  
 Subject to change

**BOS 5K-PU-LR10-02**  
**BOS01JT**

Average power Po max.	< 390 µW (IEC 60825-1)
Laser Class per IEC 60825-1	1
Light spot size, typical	Ø5 mm at 3 m
Light type	Laser red light
Polarizing filter	yes
Principle of optical operation	Retro-reflective sensor
Switching function, optical	NO/NC: dark-on/light-on
Wavelength	650 nm

**Additional text**

The sensor is functional again after the overload has been eliminated.

For additional information, refer to user's guide.

Polarizing filters prevent spurious switching due to reflecting and shiny parts.

Order accessories separately.

Operating object (test target): Gray card, 200 x 200, 90 % remission, lateral approach,

direction of movement vertical to plane of lens axes.

For use as UL listed product the Ambient temperature Ta max. may not exceed the value of 50°C.

To meet EMC requirements according EN 60947-5-2 the mounting bracket must not be grounded.

