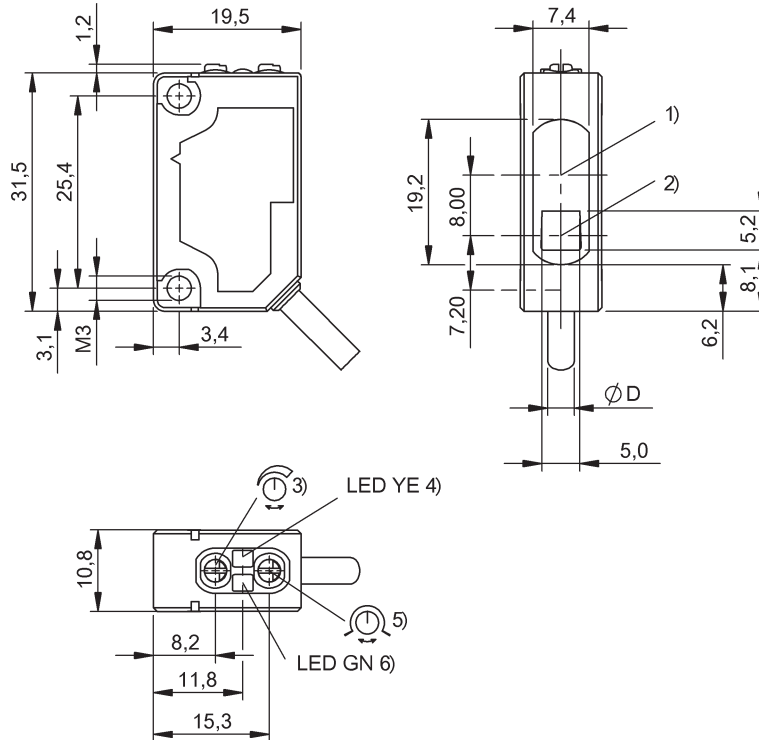


LASER CLASS 1 per IEC 60825-1:
2003-10



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 Output function - LED YE
 Stability - LED GN
 Polarity reversal protected yes
 Reference reflector BOS R-22
 Series Series 5K
 Setting Light-on/dark-on
 Sensitivity (Sn)
 Short circuit protected yes
 Trademark GLOBAL

Electrical attributes

Connection type Cable
 Eff. operating current I_e 100 mA
 Eff. operating voltage U_e DC 24.0 V
 Electrical version DC, direct current
 No-load current max. I_o at U_e 35 mA
 Operating voltage U_B max. DC [V] 30.0 V
 Operating voltage U_B min. DC [V] 10.0 V
 Ripple max. (% of U_e) 10 %
 Switching freq. f max. (at U_e) 2000 Hz

Switching function NO/NC
 Switching output NPN (1x)
 Turn on time t_{on} max. 0.25 ms
 Voltage drop U_d max. (at I_e) 1.5 V

Mechanical attributes

Ambient temperature T_a max. 55 °C
 Ambient temperature T_a min. -10 °C
 Cable diameter D max. 3.5 mm
 Cable jacket material PVC
 Cable length 2.00 m
 Conductor cross-section 0.20 mm²
 Eff. operating distance S_r 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_o 0...10 m
 Range S_n S_n = 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

Internet www.balluff.com
 Balluff Germany +49 (0) 7158 173-0, 173-370
 Balluff USA 1-800-543-8390
 Balluff China +86 (0) 21-50 644131

For definitions of terms, see main catalog
 Subject to change

BOS01JR_221974_17/10/15

BOS 5K-NU-LR10-02
BOS01JR

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

Order accessories separately.
 Polarizing filters prevent spurious switching due to reflecting and shiny parts.
 For additional information, refer to user's guide.
 Operating object (test target): Gray card, 200 x 200, 90 % remission, lateral approach,
 direction of movement vertical to plane of lens axes.
 The sensor is functional again after the overload has been eliminated.
 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.

