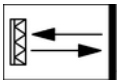
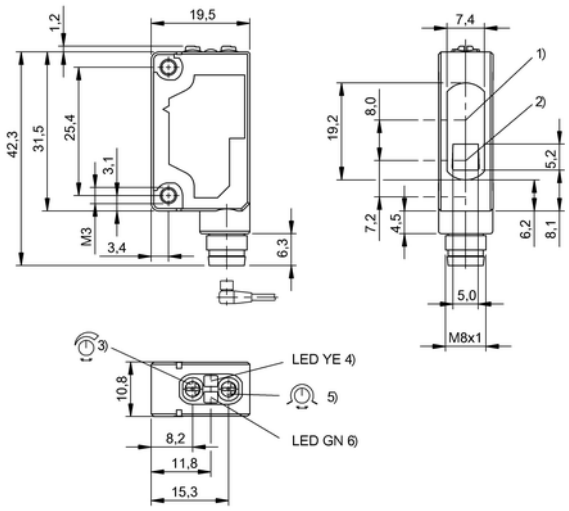
BOS 5K-PU-LR10-S75
Ordering code: BOS01JW

Retroreflective sensor
Series 5K
0...10 m

PNP (1x), antivalent
Laser red light, Laserklasse 1
DC, direct current







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

Characteristic data

Operating voltage	10...30 V DC
Connection	Connector, M8x1-S75
Switching freq. f max.	2000 Hz
Reference reflector	BOS R-22
Short-circuit protected	yes
Protected against polarity reversal	yes
Enclosure Type per IEC 60529	IP67
Indicator	Output function - LED YE Stability - LED GN
Adjuster	Potentiometer 270° (2x)
Setting	Sensitivity (Sn) Light-on/dark-on

Optical data

Principle of optical operation	Retro-reflective sensor
Switching function, optical	NO/NC: dark-on/light-on
Light spot size, typical	Ø5 mm at 3 m
Light type	Laser red light
Wavelength	650 nm
Ambient light max.	5,000 Lux
Laser class per IEC 60825-1	1
Average power Po max.	< 390 µW (IEC 60825-1)
Polarising filter	yes

Electrical data

Rated operating voltage Ue DC	24,0 V
Effective operating current Ie	100 mA
Ripple max. (% of Ue)	10
Switching output	PNP (1x)
Switching function	NO/NC
Turn-off delay toff max.	0,25 ms
Turn-on delay ton max.	0,25 ms
No-load current max. Io at Ue	35 mA
Voltage drop Ud max. (at Ie)	1,5 V

Mechanical data

Eff. switching distance Sr	10.000 mm
Operating range Ro	0...10 m
Beam characteristic	Divergent
Range Sn	Sn = 10 m, adjustable
Blind zone	300 mm
Connector type	M8x1-S75
Sensing surface material	PMMA
Housing material	PC, PBT
Mounting type	Screw M3
Design	Block, 90° connection
Ambient temperature	-10...55 °C

Basic data

Basic standard	IEC 60947-5-2

The sensor is functional again after the overload has been eliminated.
Polarizing filters prevent spurious switching due to reflecting and shiny parts.
Operating object (test target): Gray card, 200 x 200, 90 % remission, lateral approach, direction of movement vertical to plane of lens axes.
To meet EMC requirements according EN 60947-5-2 the mounting bracket must not be grounded.
Only for NFPA 79 applications (machines with a supply voltage of maximum 600 volts). Device shall be connected only by using any R/C (CYJV2) cord, having suitable ratings.
For additional information, refer to user's guide.
Order accessories separately.
For use as UL listed product the Ambient temperature Ta max. may not exceed the value of 50°C.

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BALLUFF
sensors worldwide

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LISTED IND. CONT. EQ. 31MY
for use in the secondary of a class 2 source of supply

