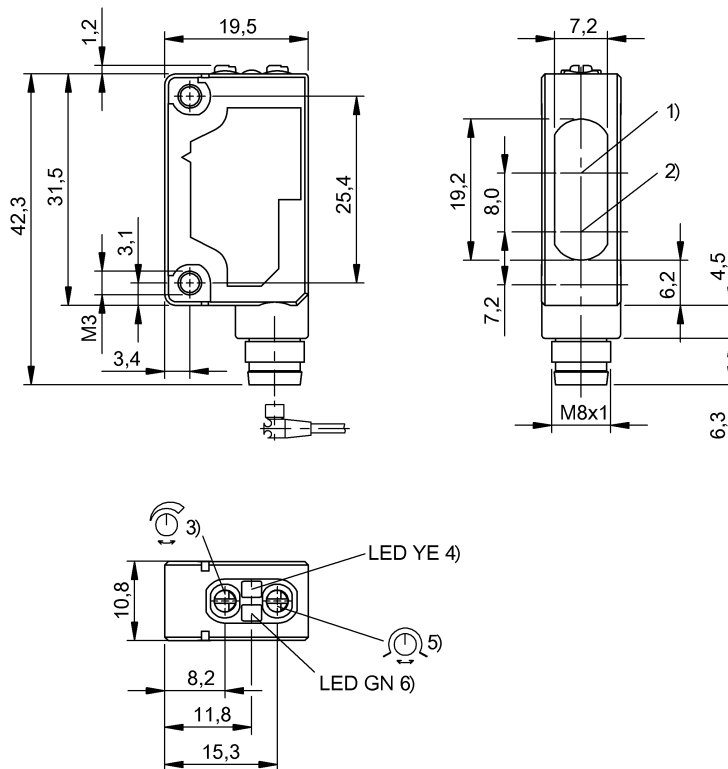


BOS 5K-PU-LH12-S75 BOS01JK



1) Optical axis receiver 2) Optical axis emitter 3) Sn 4) Output function 5) Light-on/dark-on 6) stability



Display/Operation

Adjuster	Potentiometer 270° Potentiometer 6-turn
Setting	Rated switching distance (Sn) Light-on/dark-on

Electrical connection

Connection	M8x1-Connector, 4-pole
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

Hysteresis H max. (% of Sr)	10.0 %
MTTF (40 °C)	3 a
No-load current I _o max. at U _e	35 mA
Operating voltage U _b	10...30 VDC
Pulse duration t max.	1.4 µs
Rated operating current I _e DC	100 mA
Rated operating voltage U _e DC	24 V
Switching frequency	2000 Hz
Turn-off delay t _{off} max.	0.25 ms
Turn-on delay t _{on} max.	0.25 ms

Voltage drop U_d max. at I_e 1.5 V

Environmental conditions

Ambient temperature	-10...55 °C
Protection type IEC 60529	IP67

Functional safety

Diagnostic coverage	0 %
Functional safety	no
Mission Time	10 a

General data

Approval/Conformity	CE cULus CDRH
Basic standard	IEC 60947-5-2
Series	5K
Style	Square Connection 90°
Trademark	Global

BOS 5K-PU-LH12-S75 BOS01JK

Material

Housing material	PC PBT
Material sensing surface	PMMA

Mechanical data

Dimension	10.8 x 43.5 x 19.5 mm
Fastening detail	Screw M3
Smallest part typ.	0.2 mm at 170 mm
Tightening torque max.	0.5 Nm

Optical data

Ambient light max.	5000 Lux
Average power Po max.	390 µW
Beam characteristic	Focus, typical at 260 mm
Laser class per IEC 60825-1	1
Light type	Laser Red light
Special optical feature	Background suppression
Wave length	650 nm

Output/Interface

Switching output	PNP Normally open/Normally closed (NO/NC)
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Range/Distance

Distance deviation 18 % max. (% of Sr)	8 %
Measuring range	20...300 mm
Range	20...300 mm
Rated operating distance Sn	300 mm, Adjustable
Ripple max. (% of Ue)	10 %

Remarks

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

Reference object (target): gray card, 100 x 100 90 % remission, axial approach.

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

Only for applications per NFPA 79 (machines with a supply voltage of maximum 600 V). Use an R/C (CYJV2) cable with suitable properties for attaching the device.

For additional information, refer to user's guide.

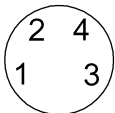
Order accessories separately.

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

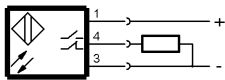
For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

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

Connector view

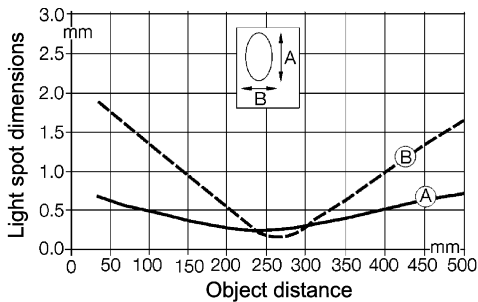


Wiring Diagram

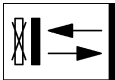


BOS 5K-PU-LH12-S75
BOS01JK

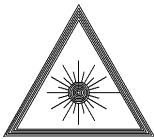
Diagram



Symbols for Optoelectronic Sensors



Warning Symbols



LASER CLASS 1 per IEC 60825-1