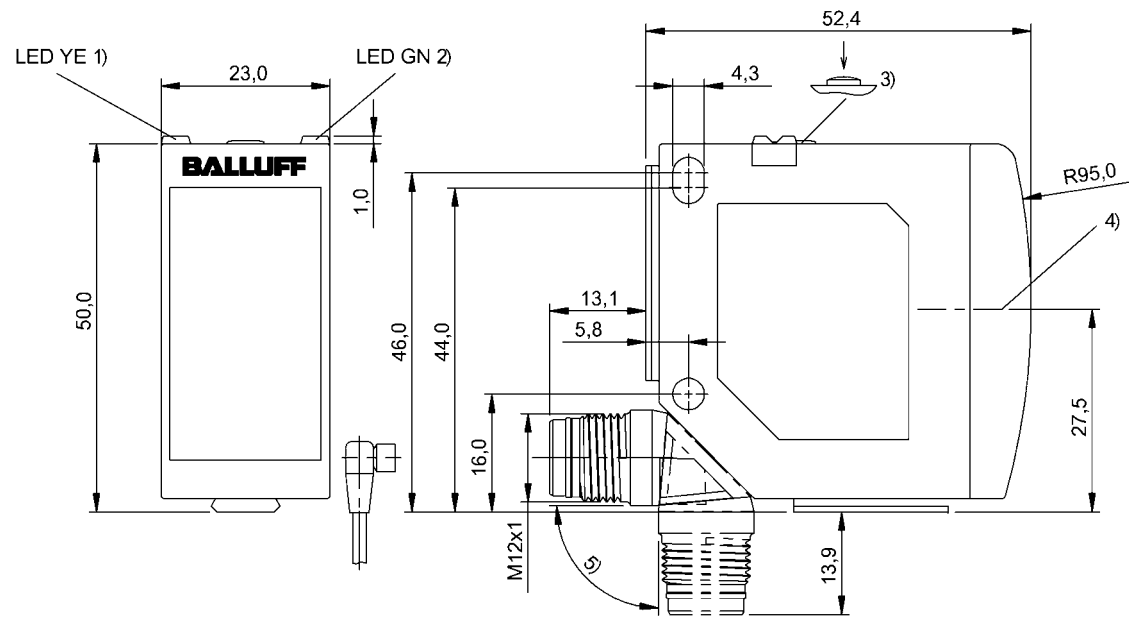


Photoelectric Sensors
BOS 23K-PA-LK10-S4
Order Code: BOS01NC



1) Output function/Error, 2) Operating voltage, 3) Sn, light/dark, 4) Optical axis, 5) rotatable 270°



Basic features	
Basic standard	IEC 60947-5-2
Principle of operation	Photoelectric sensor
Reference reflector	BOS R-22
Series	23K
Style	Square
	Connection can be rotated

Electrical connection	
Connection	Connector, M12x1-Male, 4-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data	
No-load current I_0 max. at U_e	30 mA
Operating voltage U_b	10...30 VDC
Rated operating current I_e	100 mA
Rated operating voltage U_e DC	24 V
Ready delay t_v max.	300 ms
Residual current I_r max.	50 μ A
Ripple max. (% of U_e)	10 %
Switching frequency	2500 Hz
Voltage drop U_d max. at I_e	2 V

Environmental conditions	
Ambient temperature	-20...60 °C
EN 60068-2-27, Shock	Half-sinus, 30 g_n , 11 ms, 3x6
EN 60068-2-6, Vibration	10...55 Hz, amplitude 0.5 mm, 3x30 min
IP rating	IP6x
IP rating per DIN 40050	IPx9K

Functional safety

MTTF (40 °C) 372 a

Interface

Switching output PNP normally closed (NC)
PNP normally open (NO)

Material

Housing material PC
ABS
Material sensing surface PMMA

Mechanical data

Dimension 23 x 51 x 52.4 mm
Mounting part Screw M4
Tightening torque max. 1.5 Nm

Optical features

Ambient light max. 5000 Lux
Average power Po max. 390 µW
Beam characteristic Divergent
Blind zone 100 mm
Laser class per IEC 60825-1 1
Light spot size Ø 22 mm at 20 m
Light type Laser red light
Polarizing filter yes
Principle of optical operation Retroreflective sensor
Pulse duration t max. 1.4 µs
Pulse frequency 28.6 kHz
Pulse power Pp max. 4.8 mW
Switching function, optical dark-on/light-on
Light/dark switching
Wave length 655 nm

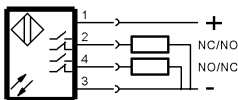
Range/Distance

Range 0...20 m
Rated operating distance Sn 20 m Adjustable

Connector Drawings



Wiring Diagrams



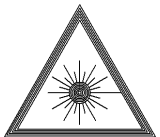
Opto Symbols



Photoelectric Sensors
BOS 23K-PA-LK10-S4
Order Code: BOS01NC



Warning Symbols



LASER CLASS 1 per IEC 60825-1