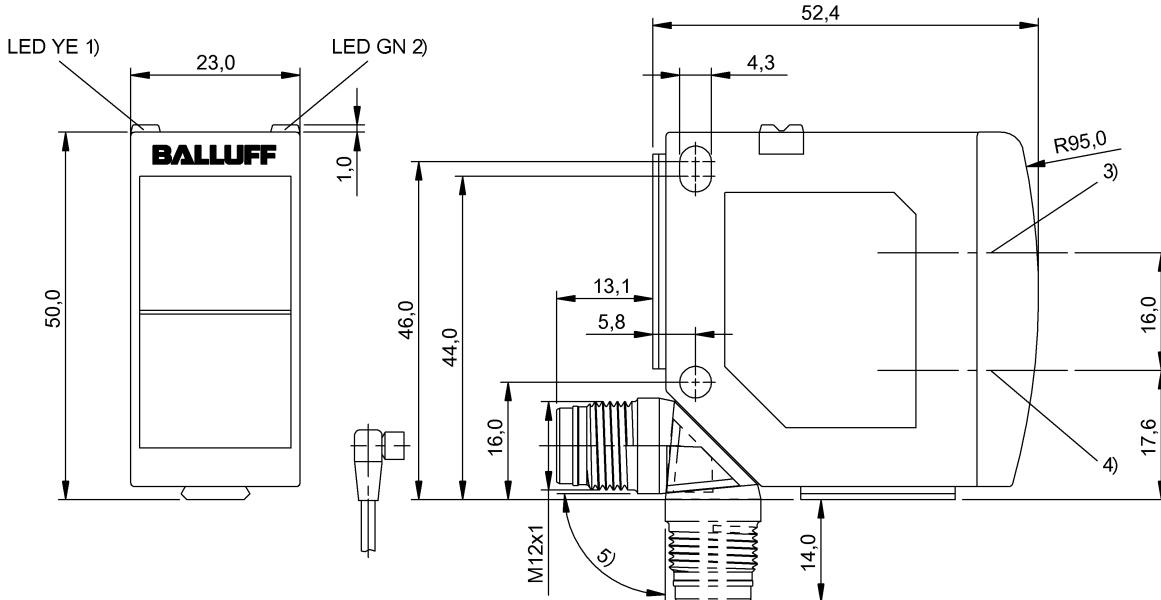


BOS 23K-PA-RR10-SA1-S4S BOS01FW



1) Output function/Error 2) Operating voltage 3) Optical axis receiver 4) Optical axis emitter 5) rotatable 270°



LISTED IND. CONT. EQ. 77HA
for use in the secondary of
a class 2 source of supply



Electrical connection

Connection	M12x1-Connector, 4-pole, A-coded
Polarity reversal protected	yes
Short-circuit protection	yes

Electrical data

MTTF (40 °C)	421 a
No-load current I _o max. at U _e	30 mA
Operating voltage U _b	10...30 VDC
Protected against miswiring	yes
Rated insulation voltage U _i	75 V DC
Rated operating current I _e DC	100 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	300 ms
Residual current I _r max.	50 µA
Switching frequency	600 Hz
Turn-off delay t _{off} max.	0.83 ms
Turn-on delay t _{on} max.	0.83 ms
Utilization category	DC -13
Voltage drop U _d max. at I _e	2 V

Environmental conditions

Ambient temperature	-20...60 °C
IP rating per DIN 40050	IPx9K
Protection class	II
Protection type IEC 60529	IP6x
Reference reflector	BOS R-1

Functional safety

Diagnostic coverage	0.0 %
Functional safety	no
Mission Time	10 a

General data

Approval/Conformity	Ecolab CE cULus
Basic standard	IEC 60947-5-2
Series	23K
Style	Square Connection can be rotated

BOS 23K-PA-RR10-SA1-S4S BOS01FW

Material

Housing material	PC ABS
Material sensing surface	PMMA

Mechanical data

Blind zone	300 mm
Dimension	23 x 51 x 52.4 mm
Fastening detail	Screw M4
Tightening torque max.	1.5 Nm

Optical data

Ambient light max.	5000 Lux
Beam characteristic	Divergent
LED group per IEC 62471	Exempt Group
Light type	LED Red light
Polarizing filter	yes
Principle of optical operation	Retroreflective sensor
Wave length	640 nm

Output/Interface

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

Measuring range	0...14 m
Range	0...14 m
Rated operating distance S_n	14 m
Ripple max. (% of U_e)	10 %

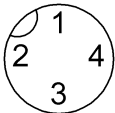
Remarks

The sensor is functional again after the overload has been eliminated.
 Actuation object (target): gray card, 200 x 200, 90 % remission, lateral approach, approach direction vertical to lens axis plane.
 Teach-in also possible when object is in motion.
 For additional information, refer to user's guide.
 Order accessories separately.
 Do not press key using a pointed tool.

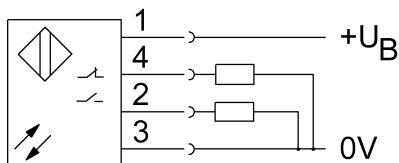
For further information on MTTF/B10d, please refer to the MTTF / B10d Certificate.

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 23K-PA-RR10-SA1-S4S
BOS01FW

Symbols for Optoelectronic Sensors

