

The **BOS 30M** series combines the high optical performance of larger block style sensors with the installation-friendly features of tubular sensors. Together with special BFO 18V-... glass fiber optics, Balluff thus provides a very high-performance and rugged design – particularly suited for the automobile industry. The long sensing distance of 2 m offers a significant function reserve under unfavorable conditions; a rugged glass disc for example protects the optics from hot chips. The 18-turn potentiometer allows accurate sensitivity adjustment. The integrated contamination display warns in time of any degradation of the optical properties caused by contamination or other influences. Both N.C. and N.O. functions are provided and easily selected.

Features

- Long range (2 m)
- Rugged design (metal housing and protective glass disc)
- 18-turn potentiometer
- N.C./N.O.-selectable
- Compatible with special glass fiber optics
- Approvals for the automotive industry
- Contamination display

Applications

- Automobile industry
- Conveying and warehousing
- Machine tool industry
- Wood processing industry
- Any harsh environment

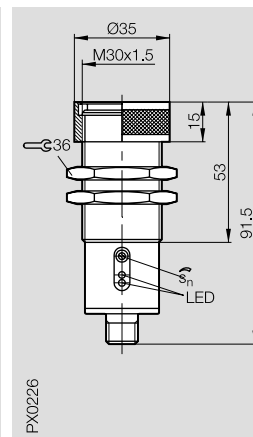
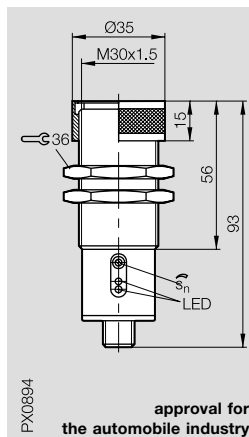
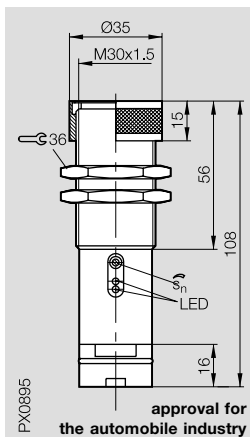


Tubular High Performance Sensors

Optoelectronic Sensors

BOS 30M
Range 2 m

Housing size	M30x1.5	M30x1.5	M30x1.5
Diffuse sensing range	2 m	2 m	2 m



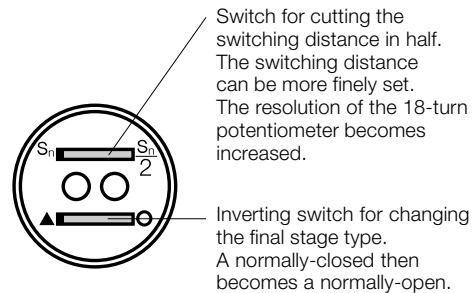
Diffuse

PNP	O/●	2 m	pot., daylight filter	BOS 30M-PU-1PH-SA 1-C	BOS 30M-PU-1PH-SA 3-C	BOS 30M-GA-1PH-S 4-C
PNP/NPN	O/●	2 m	pot., daylight filter			
Supply voltage U_B		10...30 V DC				
Voltage drop U_d at I_o		≤ 2.4 V				
Rated isolation voltage U_i		75 V DC				
Rated operational current I_o		200 mA				
No-load supply current I_o max.		≤ 40 mA				
Protected against polarity reversal		yes				
Short circuit protected		yes				
Permissible capacitance		1 μ F				
On/off delay		33 ms				
Frequency of operating cycles f		15 Hz				
Utilization category		DC 13				
Output		PNP				PNP/NPN push-pull
Output function		O/● selectable				O/● selectable
Permissible ambient light		1000 lux				1000 lux
Sensitivity/range adjustment		potentiometer 18 turn				potentiometer 18 turn
Function display (receiver sees light)		LED yellow				LED yellow
Status/contamination indicator		LED green/red				LED green/red
Ambient temperature range T_a		-5...+55 °C				-5...+55 °C
Degree of protection per IEC 60529		IP 65				IP 65
Housing material		CuZn nickel plated				CuZn nickel plated
Material of sensing face		glass				glass
Connection		connector				connector
Recommended connector		BKS-S 1				BKS-B 19/BKS-B 20
Weight		230 g				230 g

O/● = Light-on/dark-on

Diffuse values referenced to Kodak gray card with 90 % reflection.

For wiring diagrams, characteristics and accessories see page 2.1.36.



2.1

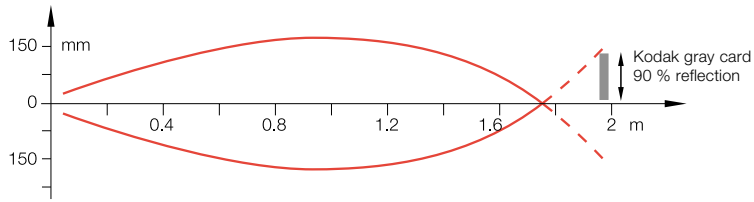
2.3

Accessories
Optosensors
page 2.3.2 ...

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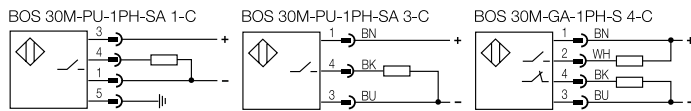
Connectors ...
page 6.2 ...

Diffuse BOS 30M-...-1PH-...



Sensing distance measured with lateral approach using Kodak gray card.

Wiring diagrams



Recommended accessories

please order separately



Adapter
BFO 30-A1



Mounting clamp
BOS 30,0-KB-1



Connector
BKS-S 1



Connector
BKS-B 19/BKS-B 20