The **BOS 30M** series combines the high optical performance of large block-shaped sensors with the installation-friendly characteristics of cylindrical sensors.

The long 2 m sensing distance provides great function reserve under less than favorable operating conditions. A tough glass disk protects the optics from debris such as hot swarf, and the 18-turn- potentiometer enables precise sensitivity configuration. In addition, the integrated contamination indicator provides warning of contamination or external influences in order to avoid impairing the optics.

The BOS 30M series provides a very high performance and robust design together with special glass optical fiber BFO 18V-... A design that is particularly well-suited to the automotive industry.

Features
- Long sensing distance
- Tough design (metal housing and glass protective shield)
- 18-turn- potentiometer
- NO-/NC- toggle
- Compatible with special glass optical fiber
- Automotive industry approved
- Contamination indicator

Applications
- Automotive industry
- Conveying and warehouse equipment
- Construction machinery
- Woodworking industry
- In harsh environments

Type	Sensing distance/ Range	Light type		Output		Switching type		Switch-ing fre-quency	U_S	Connec-tion		Page
■ Ordering code Part number		Infrared		PNP transistor	NPN transistor	Light switching	Dark switching		10...30 V DC	M12 plug, 4-pin		
Diffuse sensor												
BOS0134 BOS 30M-GA-1PH-S4-C	0...2 m	■		■		■	■	100 Hz	■	■		137
BOS008T BOS 30M-PU-1PH-SA3-C	0...2 m	■		■	■	■	■	100 Hz	■	■		137

Photoelectric Sensors

Photoelectric Sensors
Cylinder Designs
Block Designs
Fork Sensors BGL
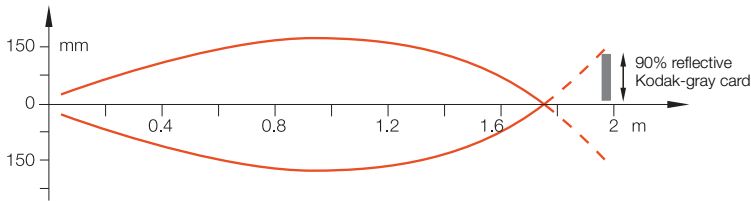Angle Sensors BWL

Photoelectric Sensors with Special Proper-ties

Photoelectric Distance Sensors for Analog Distance Measurement

Accessories for Photoelectric Sensors

BOS 30M
Function diagram, connection, accessories

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

Sensing distance with side approach of Kodak-gray card.

Wiring diagrams

BOS 30M-PU-1PH-SA3-C

BOS 30M-GA-1PH-S4-C

Switch for halving the switching distance.
The switching distance can be set more precisely.
The resolution of the 18-turn spindle potentiometer is increased.

Inverting switch for toggling the final stage version, thereby converting normally closed to normally open.
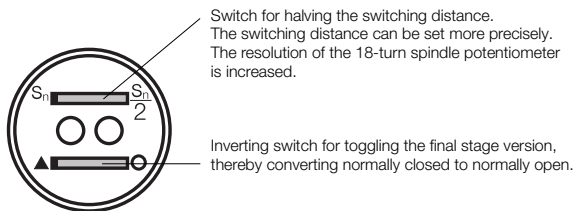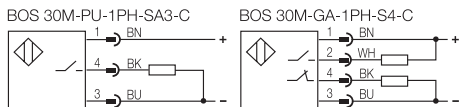
Recommended accessories
(please order separately)

Description	Ordering code
Mounting clamp	**BAM00TN**

You can find special accessories for diffuse sensors, such as **reflectors, apertures, lenses, filters and deflection heads,** in this catalog starting on page 376.

More mechanical accessories: You can find a large selection of mounting components of all types, such as clamping holders, mounting brackets and the Balluff mounting system BMS, in our **Accessories Line** catalog.

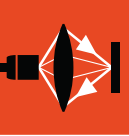**Suitable connectors**
(please order separately)

Size	Design	Cable material	Color	Length	Ordering code
M12, 4-pin	Straight	PUR	Black	2 m	**BCC032F**
M12, 4-pin	Straight	PVC	Gray	2 m	**BCC0367**
M12, 4-pin	Angled	PUR	Black	2 m	**BCC032Y**
M12, 4-pin	Angled	PVC	Gray	2 m	**BCC036N**

Connectors without LED are suitable for PNP and NPN sensors.

More electrical accessories: You can find a large selection of plug connectors and connector cables in a wide variety of cable materials, colors and lengths in our **Industrial Networking and Connectivity catalog.**

CE

Approval
for the
automotive industry

Photoelectric Sensors

Photoelectric Sensors

Cylinder Designs

Block Designs

Fork Sensors BGL

Angle Sensors BWL

Photoelectric Sensors with Special Properties

Photoelectric Distance Sensors for Analog Distance Measurement

Accessories for Photoelectric Sensors

Type			**Diffuse sensor**	**Diffuse sensor**
Detection range			**0...2 m**	**0...2 m**
PNP	Daylight filter	**Ordering code**		**BOS008T**
		Part number		BOS 30M-PU-1PH-SA3-C
PNP/NPN	Daylight filter	**Ordering code**	**BOS0134**	
		Part number	BOS 30M-GA-1PH-S4-C	
Supply voltage U_S			10…30 V DC	10…30 V DC
Output current			200 mA	200 mA
No-load supply current I_0 max.			≤ 40 mA	≤ 40 mA
Switching type			Light and dark switching	Light and dark switching
Polarity reversal/short-circuit protected			Yes/Yes	Yes/Yes
Settings			Potentiometer, 18-turn	Potentiometer, 18-turn
Emitter, light type			LED, infrared	LED, infrared
Wavelength			880 Nm	880 Nm
Power-on indicator			Green LED	Green LED
Output function indicator			Yellow LED	Yellow LED
Stability indicator			Red LED	Red LED
Response time			5 ms	5 ms
Switching frequency f			100 Hz	100 Hz
Degree of protection as per IEC 60529			IP 65	IP 65
Ambient temperature T_a			−20...+60 °C	−20...+60 °C
Material		Housing	Nickel-plated CuZn	Nickel-plated CuZn
		Optical surface	Glass	Glass
Connection			M12 connector, 4-pin	M12 connector, 4-pin

Reference object: white, 90% reflection, 200×200 mm

Ø35
M30x1.5
15
36
56
93
LED

Ø35
M30x1.5
15
36
53
91.5
LED