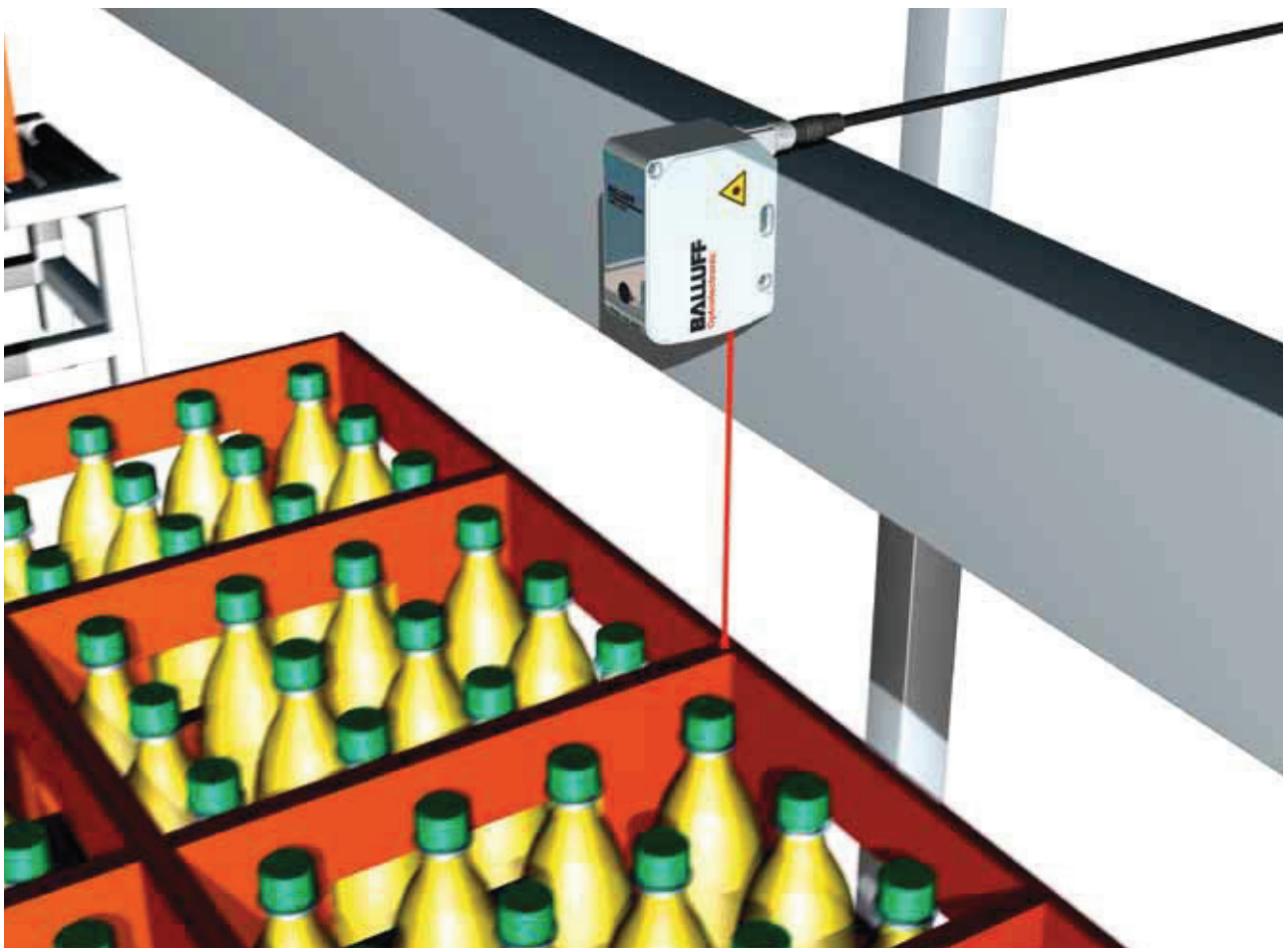
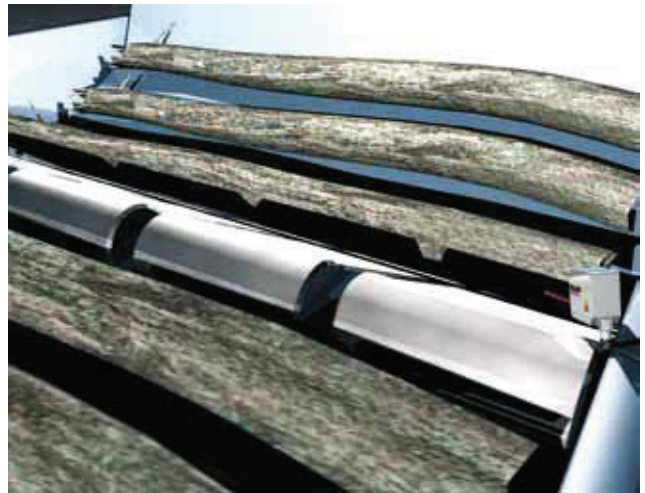


The **BOS 63M** is a specialist among the diffuse sensors with regard to background suppression. The laser makes it ideally suited for detecting objects from far away when they are right in front of a background. The precise laser beam detects even small objects or object details from great distances.

With two solid 4-turn potentiometers, the two switching outputs can be configured independently and exactly. An integrated error indicator informs you about the current sensor status.



Photoelectric Sensors

BOS 63M

Product overview



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

■ **Ordering code**
■ Part number



Diffuse sensor with background suppression

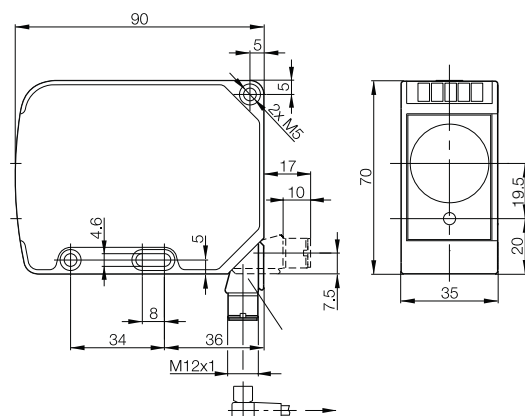
Sensing distance/Range	Light type	Output	Switching type	Switching frequency	U _S	Connection	Special features	Page
BOS019J BOS 63M-PS-LH13-S4	Laser	2× PNP transistor	Light switching	250 Hz	15...30 V DC	M12 connector, 4-pin		230

NPN on request



Type	Diffuse sensor with background suppression	
Detection range	0.2...6 m	
2× PNP	Ordering code	BOS019J
	Part number	BOS 63M-PS-LH13-S4
Supply voltage U_s	15...30 V DC	
Output current	200 mA	
No-load supply current I_0 max.	75 mA	
Switching type	Light switching	
Polarity reversal/short-circuit protected	Yes/Yes	
Settings	Potentiometer, 4-turn (2x)	
Emitter, light type	Laser, red light	
Wavelength	660 Nm	
Laser class	2	
Light spot size	10 mm	
Gray value shift	$\leq 1.5\%$	
Switching hysteresis	≤ 15 mm	
Repeat accuracy	$\leq \pm 4$ mm	
Power-on indicator	Green LED	
Output function indicator	Yellow LED (2x)	
Error indicator	Red LED	
Response time	2 ms	
Switching frequency f	250 Hz	
Degree of protection as per IEC 60529	IP 67	
Ambient temperature T	$-10...+60^\circ\text{C}$	
Permissible ambient light	10 klx	
Material	Housing	GD-AL
	Optical surface	Glass
Connection	M12 connector, 4-pin	

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



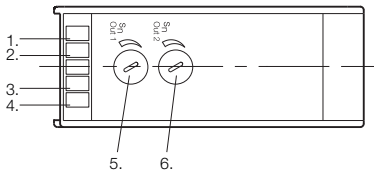


Photoelectric Sensors

BOS 63M

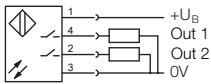
Function diagram, connection, accessories

Indicators and operating elements

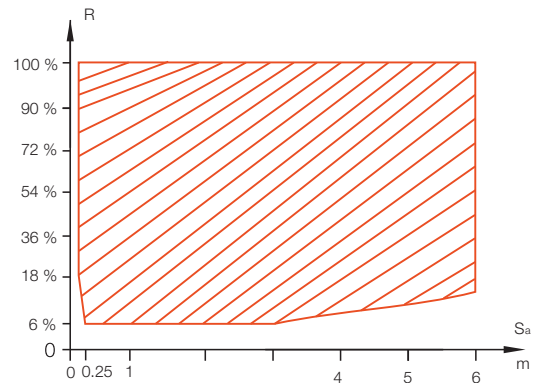


1. Power indicator (green)
2. Output function indicator Out 1 (yellow)
3. Output function indicator Out 2 (yellow)
4. Error indicator (red)
5. 4-turn potentiometer for switching distance 1
6. 4-turn potentiometer for switching distance 2

Wiring diagram



Working range as a function of object reflectivity



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Accessories for Photoelectric Sensors

Recommended accessories (please order separately)

Description	Ordering code
Mounting bracket	BAM00P6



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.