

The ideal use for optical window sensors BOW is when objects do not just have to be scanned in some places, but throughout an entire area (window) instead. Thanks to their multitude of beams arranged in parallel, they can detect objects in a broad window. A constant, high resolution is ensured at each location in the window in the process.

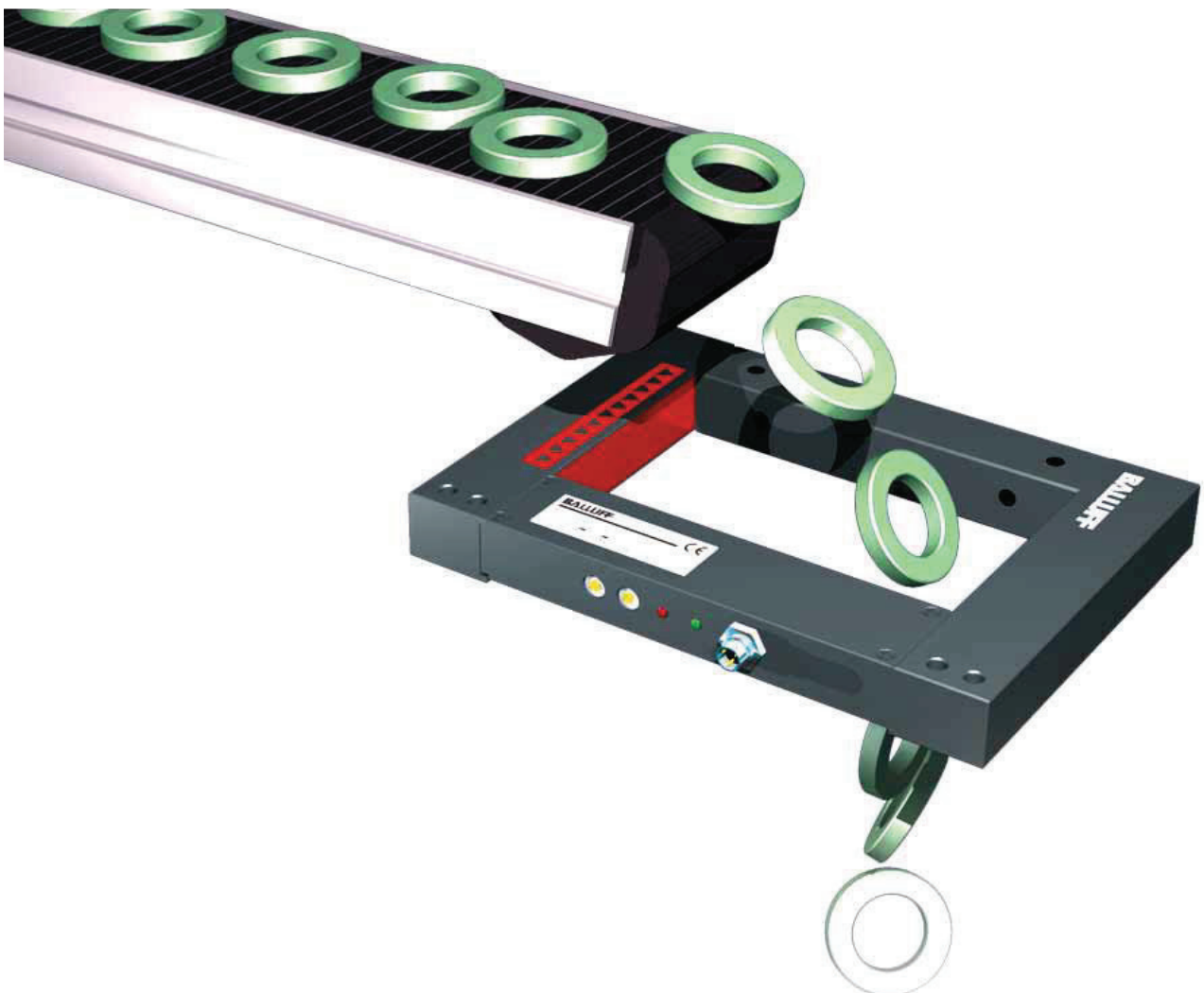
BOW sensors are dynamic, which means that parts are detected in the active area when they are moving.

Features

- Constant, high resolution
- Dynamic operation
- Only moving objects are detected, so feed trays and the like do not affect the measurement
- Detects small parts down to 1 mm
- Adjustable output signal length
- Adjustable sensitivity
- Three window sizes
- Standard M8 connector

Applications

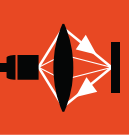
- Compressed air feeding of small parts
- Thread break monitoring
- Eject monitoring
- Counting/separating parts



Photoelectric Sensors with Special Properties

Optical window sensors BOW

Product overview



Photoelectric Sensors

Photoelectric Sensors

Photoelectric Sensors with Special Properties

Analog Fork Sensors BGL_C

Optical Window Sensors BOW

Light Grids BLG

Color Sensors BFS

Contrast Sensors BKT

Luminescence Sensors BLT

Optical Fiber Base Units BFB/BOS

Plastic Fiber Optics BFO

Glass Fiber Optics BFO

Photoelectric Distance Sensors for Analog Distance Measurement

Accessories for Photoelectric Sensors

Type

■ Ordering code
■ Part number

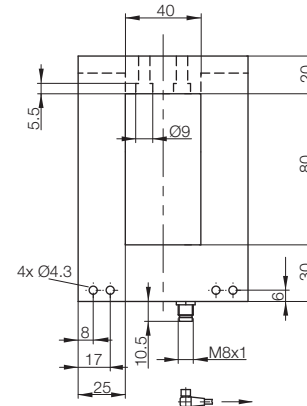


Optical window sensors

Type		Active area	Resolution	Light type		Output		Switching type		Principle		U _s	Connec-tion		Page
				Infrared		PNP transistor		Dark switching		Dynamic			10...30 V DC	M8 plug, 3-pin	
BOW001A	BOW A-0408-PS-C-S49	40×80 mm	1 mm	■		■		■		■		■	■		282
BOW001J	BOW A-0808-PS-C-S49	80×80 mm	1 mm	■		■		■		■		■	■		283
BOW0012	BOW A-1208-PS-C-S49	120×80 mm	1.2 mm	■		■		■		■		■	■		283



Series	BOW	
Active area	40×80 mm	
PNP NC/NO	Ordering code	BOW001A
	Part number	BOW A-0408-PS-C-S49
Supply voltage U_S	10...30 V DC	
No-load supply current I_0 max.	≤ 40 mA	
Output current	200 mA	
Switching type	Dark switching	
Polarity reversal/short-circuit protected	Yes/Yes	
Settings	2× Potentiometer, 270°	
Emitter, light type	LED, infrared	
Wavelength	880 Nm	
Resolution (smallest discernible part)	1.0 mm	
Power-on indicator	Green LED	
Output function indicator	Red LED	
Turn-on delay	0.2 ms	
Signal duration for pulse stretching	10...300 ms adjustable	
Switching frequency	3...100 Hz dyn.	
Degree of protection as per IEC 60529	IP 67	
Ambient temperature T_a	-10...+55 °C	
Ambient light limit according to	EN 60947-5-2	
Material	Housing	Anodized aluminum
	Optical surface	PMMA
Connection	M8 connector, 3-pin	



Suitable connectors
(please order separately)

Size	Design	Cable material	Color	Length	Ordering code
M8, 3-pin	Straight	PUR	Black	2 m	BCC02M8
M8, 3-pin	Straight	PVC	Gray	2 m	BCC02NU
M8, 3-pin	Angled	PUR	Black	2 m	BCC02ML
M8, 3-pin	Angled	PVC	Gray	2 m	BCC02P5

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**.

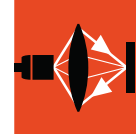
Photoelectric Sensors with Special Properties

Optical window sensors BOW



BOW
80x80 mm
BOW001J
BOW A-0808-PS-C-S49
10...30 V DC
≤ 45 mA
200 mA
Dark switching
Yes/Yes
2x Potentiometer, 270°
LED, infrared
880 Nm
1.0 mm
Green LED
Red LED
0.2 ms
10...300 ms adjustable
3...100 Hz dyn.
IP 67
-10...+55 °C
EN 60947-5-2
Anodized aluminum
PMMA
M8 connector, 3-pin

BOW
120x80 mm
BOW0012
BOW A-1208-PS-C-S49
10...30 V DC
≤ 60 mA
200 mA
Dark switching
Yes/Yes
2x Potentiometer, 270°
LED, infrared
880 Nm
1.2 mm
Green LED
Red LED
0.2 ms
10...300 ms adjustable
3...100 Hz dyn
IP 67
-10...+55 °C
EN 60947-5-2
Anodized aluminum
PMMA
M8 connector, 3-pin



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Sensors

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Sensors with
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Analog Fork
Sensors BGL_C

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Color Sensors
BFS

Contrast Sensors
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Luminescence
Sensors BLT

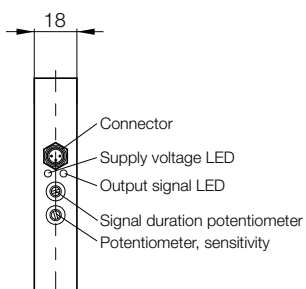
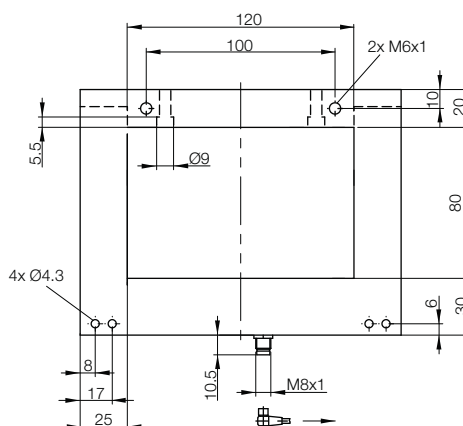
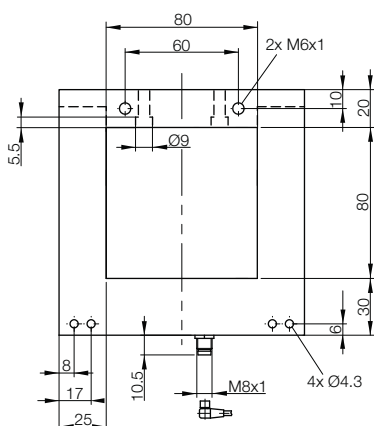
Optical Fiber
Base Units BFB/
BOS

Plastic
Fiber Optics BFO

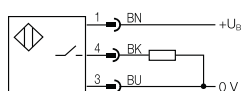
Glass Fiber
Optics BFO

Photoelectric
Distance
Sensors
for Analog
Distance
Measurement

Accessories for
Photoelectric
Sensors



Wiring diagram



When installing with exposure to ambient light, make sure that the receiver is located on the connector side.

Light grids BLG are normally used for reliably detecting wide and very large objects. BLG sensors are available in various measurement field heights of 100, 150 and 300 mm and allow both large and small ranges. Light grids with a measurement field height of 100 and 150 mm can be ordered with low or high resolution.

The light grid can be simply and quickly installed using the supplied mounting bracket. Setup and installation are user friendly and easy to accomplish.

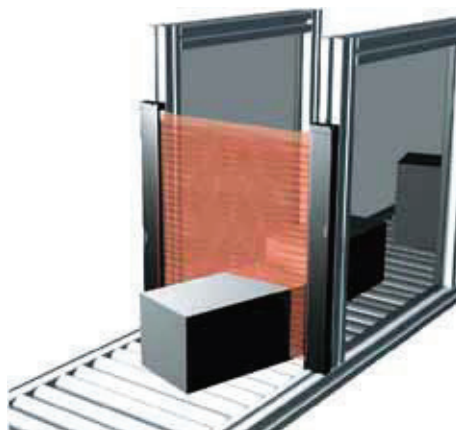
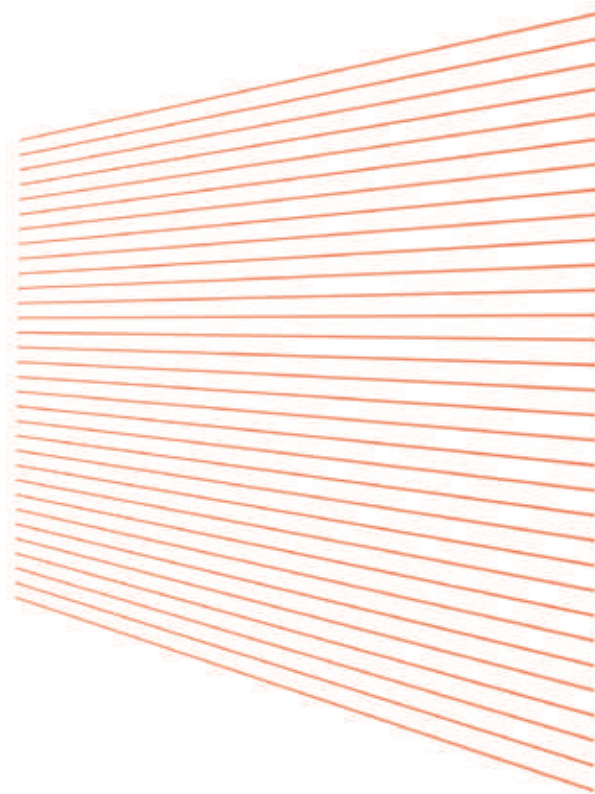
The system features an analog voltage output for outputting the height or width of an object directly. An additional switching output indicates whether the object is within the monitored range.

Features

- Easy to connect
- Easy to install
- Ready for operation immediately
- No cumbersome configuration of parameters
- Ranges 150 mm...2.1 m
- Measurement field heights 100, 150, 300 mm
- Analog output

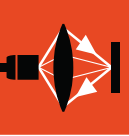
Applications

- Counting parts
- Height measurement and height checking
- Presence verification
- Slack and position checking
- Pallet checking
- Web monitoring
- Position and material monitoring



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Light grids BLG Product overview



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■ Part number



Light grids

Type	Measuring field height	Range	Resolution		Light type		Output		Switching type		U _s	Connec-tion	Page
			5 mm	7 mm	Infrared		PNP transistor	Analog 0...10 V	Dark switching				
		0.15...2.1 m									24 V DC	M12 plug	
BLG0001	BLG 1-010-210-050-PV01-SX	100 mm	■		■		■	■	■	■	■	■	287
BLG0002	BLG 1-010-210-070-PV01-SX	100 mm	■			■	■	■	■	■	■	■	287
BLG0003	BLG 1-015-210-050-PV01-SX	150 mm	■		■		■	■	■	■	■	■	287
BLG0004	BLG 1-015-210-070-PV01-SX	150 mm	■			■	■	■	■	■	■	■	287
BLG0005	BLG 1-030-210-070-PV01-SX	300 mm	■			■	■	■	■	■	■	■	287