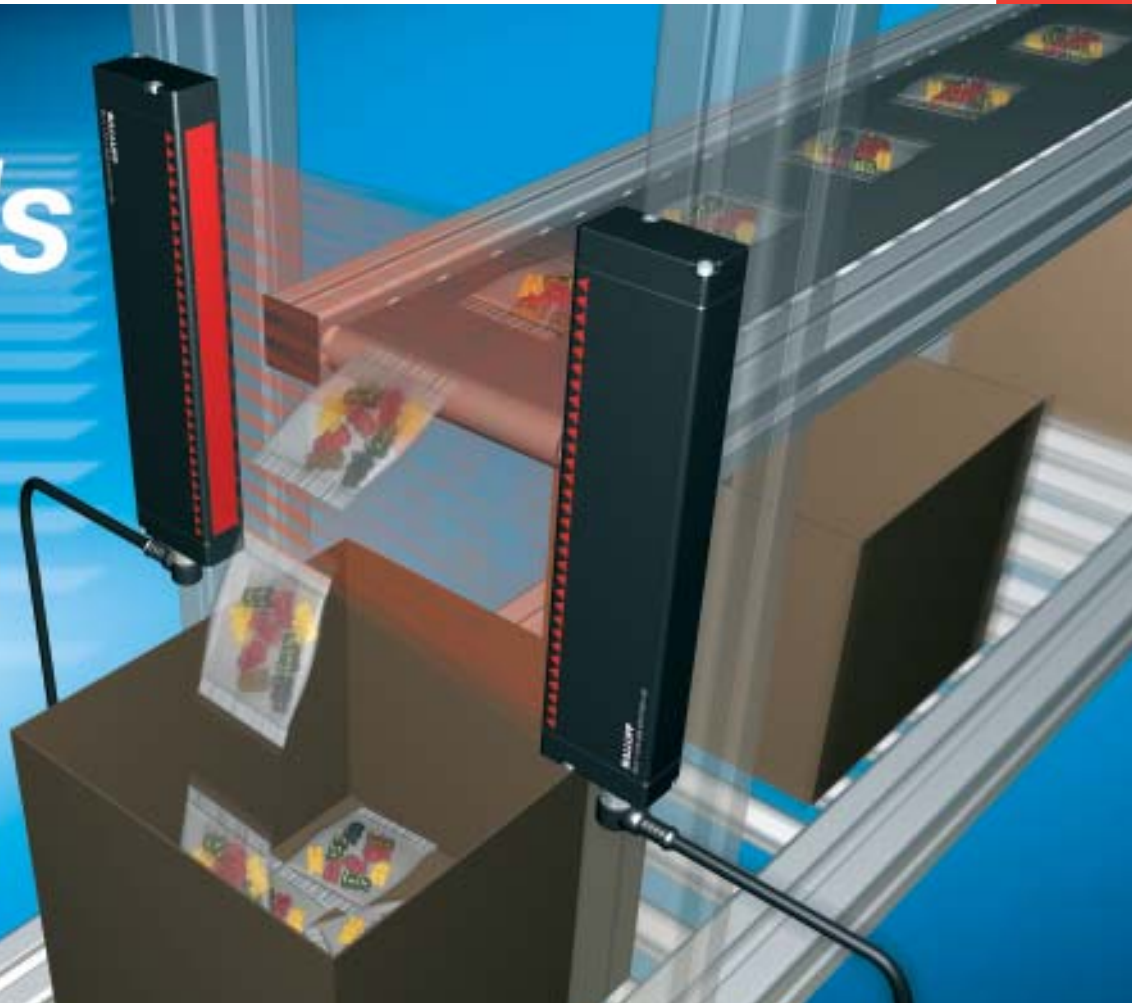




BALLUFF

Light Grids BLG 1
Detect, count, measure

*Light
Grids*



Light Grids BLG 1

Detect, count, measure

The system is available in various field heights of 100, 150 and 300 mm. The different series offer either long or short ranges. This ensures reliable detection of both wide and very large objects. Models with a field height of 100 and 150 mm offer low or high resolution.

The light grid can be easily and quickly mounted using the mounting bracket supplied. Alignment and installation is user-friendly and trouble-free.

To directly output the height or width of an object the system includes an analog voltage output. An additional switching output indicates whether an object is within the monitored area. The

current switching state is visualized by means of an integrated LED on the device.

A light grid from Balluff brings the solution to your applications within range.

Features

- Easy to connect
- Trouble-free installation
- Easy to align
- Ready to use
- No complicated parameter setting
- Ranges 150 mm...2.1 m (depending on model)
- Resolution 4, 5, 7 mm (depending on model)
- Field heights 100, 150, 300 mm (depending on model)

Applications

- Counting parts
- Height measurement and monitoring
- Presence verification
- Pass-through and position monitoring
- Pallet monitoring
- Conveyor belt monitoring
- Position and product monitoring

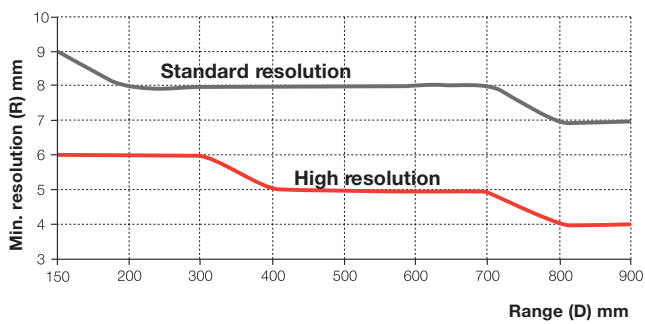


Selection table BLG 1

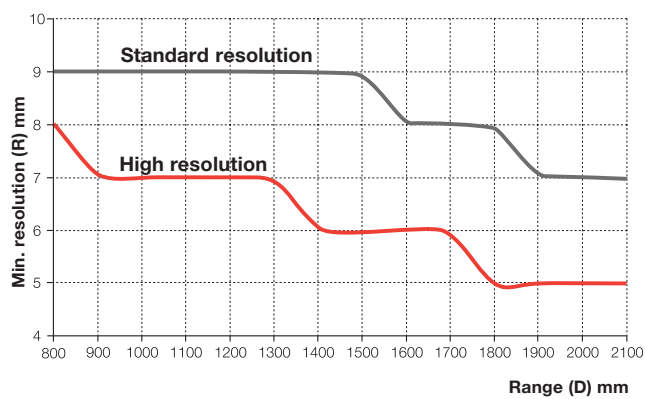
Type	Field height	Range	Resolution	No. of beams	Switching frequency	Response time
BLG 1-010-085-070-PV01-SX	100 mm	150...850 mm	7 mm	16	500 Hz	1 ms
BLG 1-010-085-040-PV01-SX	100 mm	150...850 mm	4 mm	32	250 Hz	2 ms
BLG 1-010-210-070-PV01-SX	100 mm	0.8...2.1 m	7 mm	16	500 Hz	1 ms
BLG 1-010-210-050-PV01-SX	100 mm	0.8...2.1 m	5 mm	32	250 Hz	2 ms
BLG 1-015-085-070-PV01-SX	150 mm	150...850 mm	7 mm	24	333 Hz	1.5 ms
BLG 1-015-085-040-PV01-SX	150 mm	150...850 mm	4 mm	48	182 Hz	2.75 ms
BLG 1-015-210-070-PV01-SX	150 mm	0.8...2.1 m	7 mm	24	333 Hz	1.5 ms
BLG 1-015-210-050-PV01-SX	150 mm	0.8...2.1 m	5 mm	48	182 Hz	2.75 ms
BLG 1-030-085-070-PV01-SX	300 mm	150...850 mm	7 mm	48	182 Hz	2.75 ms
BLG 1-030-210-070-PV01-SX	300 mm	0.8...2.1 m	7 mm	48	182 Hz	2.75 ms

Processing diagrams

Range 150...850 mm



Range 0.8...2.1 m



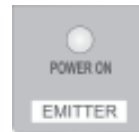
Indicators

Output function indicator



Power-on indicator

Receiver



Power-on indicator

Emitter

Applications

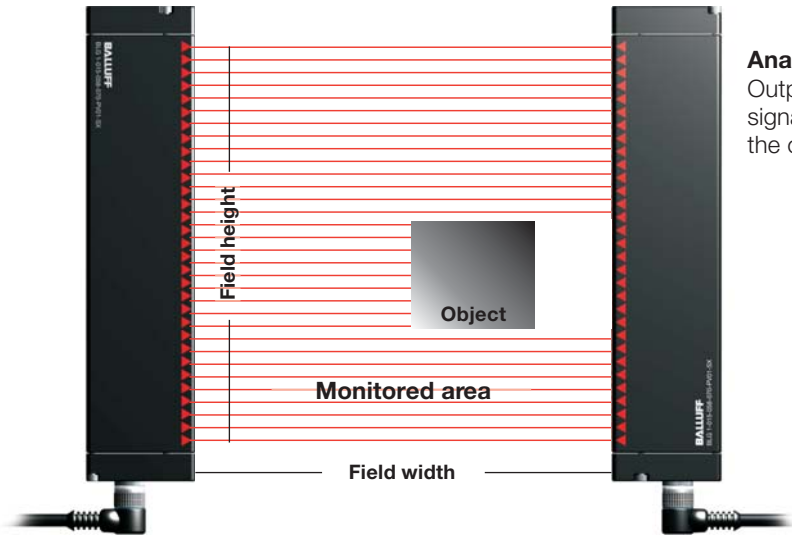


Height monitoring



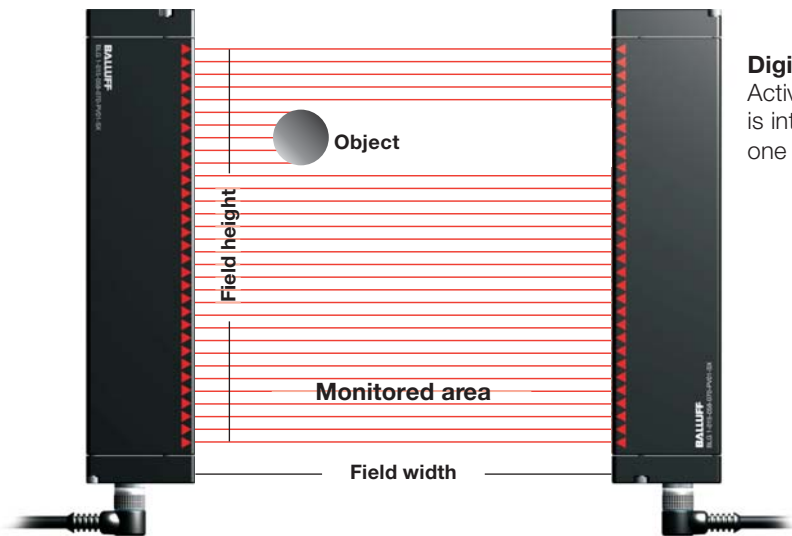
Pass-through and position monitoring

Object measurement

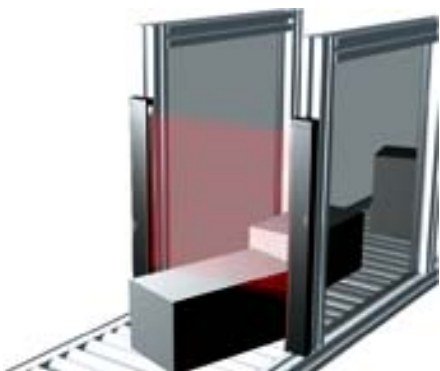


Analog output
Outputs a voltage signal proportional to the object size.

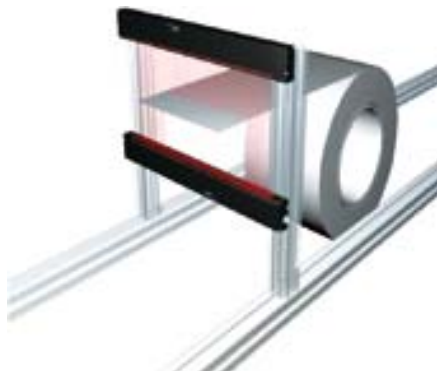
Detecting objects



Digital output
Active when an object is interrupting at least one light beam.



Pallet monitoring

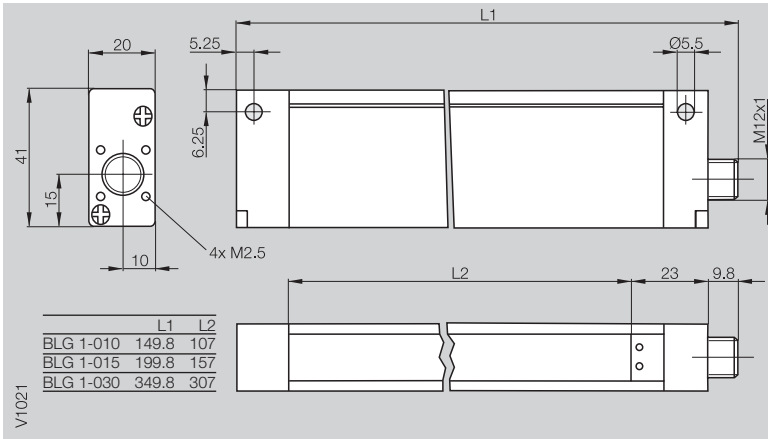


Conveyor belt monitoring



Counting parts

Series	BLG	BLG	BLG
Field height	100 mm	150 mm	300 mm



Light grid 150...850 mm range

PNP	Resolution 7 mm	BLG 1-010-085-070-PV01-SX	BLG 1-015-085-070-PV01-SX	BLG 1-030-085-070-PV01-SX
	Resolution 4 mm	BLG 1-010-085-040-PV01-SX	BLG 1-015-085-040-PV01-SX	

Light grid 0.8...2.1 m range

PNP	Resolution 7 mm	BLG 1-010-210-070-PV01-SX	BLG 1-015-210-070-PV01-SX	BLG 1-030-210-070-PV01-SX
	Resolution 5 mm	BLG 1-010-210-050-PV01-SX	BLG 1-015-210-050-PV01-SX	

Electrical data

Supply voltage U_B		24 V DC	24 V DC	24 V DC
Ripple		15 %	15 %	15 %
No-load supply current I_0	emitter	≤ 150 mA	≤ 150 mA	≤ 150 mA
	receiver	≤ 50 mA no-load	≤ 50 mA no-load	≤ 50 mA no-load
Output		PNP-Transistor	PNP-Transistor	PNP-Transistor
Output current		100 mA	100 mA	100 mA
Switching type		dark-on	dark-on	dark-on
Voltage drop U_d at I_0		≤ 1.5 V/10 mA	≤ 1.5 V/10 mA	≤ 1.5 V/10 mA
Analog output		0...10 V	0...10 V	0...10 V
Settings		none	none	none

Optical data

Emitter, light type		LED, infrared	LED, infrared	LED, infrared
Wavelength		880 nm	880 nm	880 nm

Display

Power-on indicator	emitter/receiver	LED green	LED green	LED green
Output function indicator	receiver	LED orange	LED orange	LED orange

Mechanical data

Dimensions		see drawing	see drawing	see drawing
Connection	emitter	M12 connector, 4-pin	M12 connector, 4-pin	M12 connector, 4-pin
	receiver	M12 connector, 5-pin	M12 connector, 5-pin	M12 connector, 5-pin
Housing material		black anodized aluminum	black anodized aluminum	black anodized aluminum
Lens material		PMMA	PMMA	PMMA
Weight		300 g	340 g	510 g

Ambient data

Degree of protection per IEC 60529		IP 65	IP 65	IP 65
Short circuit protected		yes	yes	yes
Ambient temperature range T_a		0...+55 °C	0...+55 °C	0...+55 °C

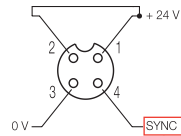
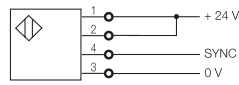
Mounting bracket



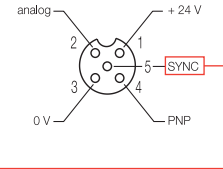
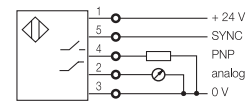
Mounting brackets included.

Wiring diagrams

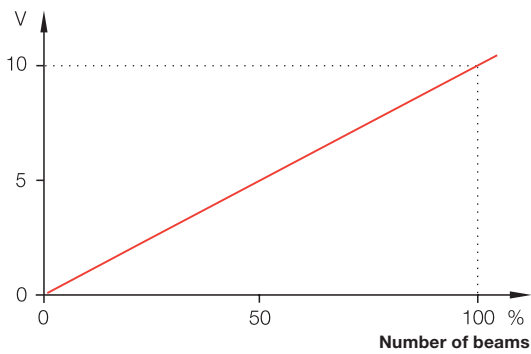
Emitter



Receiver



Analog output



Recommended accessories

please order separately

Emitter:

Connectors 4-pin
BKS-_ 19/BKS-_ 20



Receiver:

Connectors 5-pin
BKS-S134-17,
BKS-S137-PH



For more sensors see main catalog "The Sensor Line" on CD-ROM or online!

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