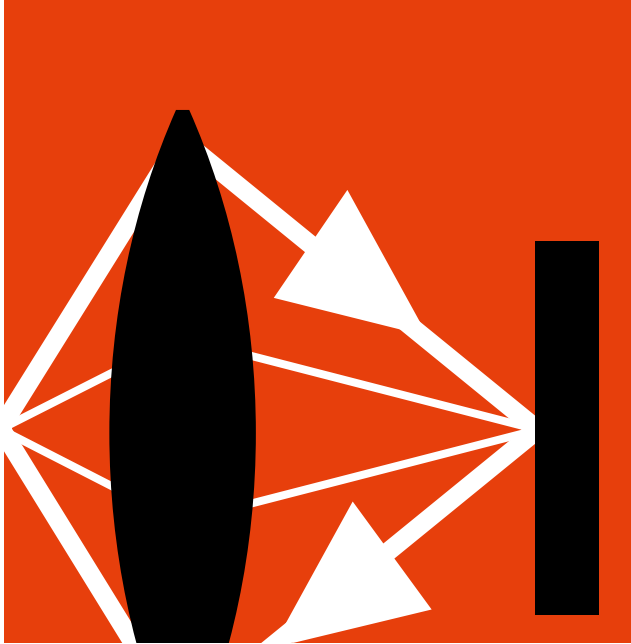




Photoelectric Global Sensors

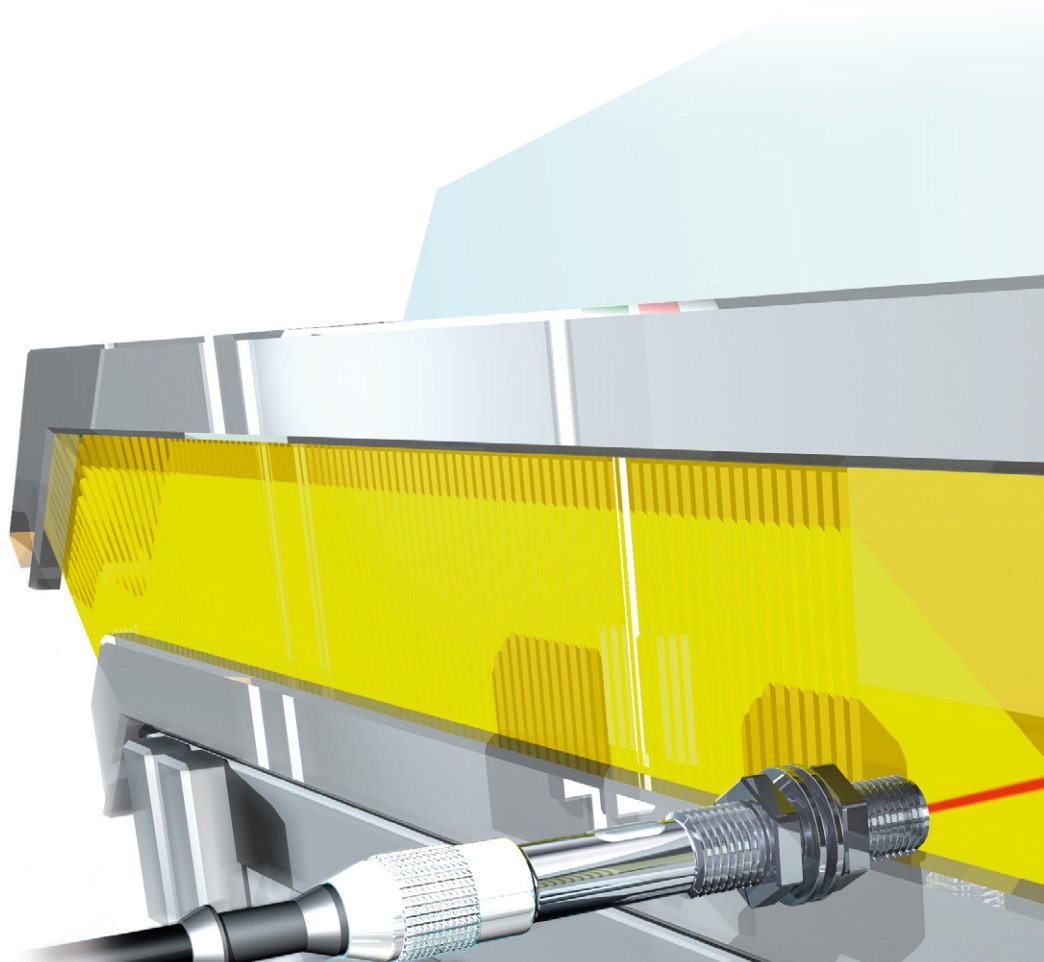
Photoelectric Global sensors – the first choice for your standard applications

Easy operation, fast installation, affordable price – the highlights of our photoelectric Global sensors.

The broad spectrum of diffuse sensors, retroreflective light sensors and through-beam sensors in various housing designs has a wide variety of applications.

Features

- **Sound performance and reliable object detection**
- **ideal for standard applications**
- **cost-effective in every light type**





Photoelectric Global Sensors

Contents

Block Designs

BOS 5K
BOS 11K

8
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Cylinder Designs

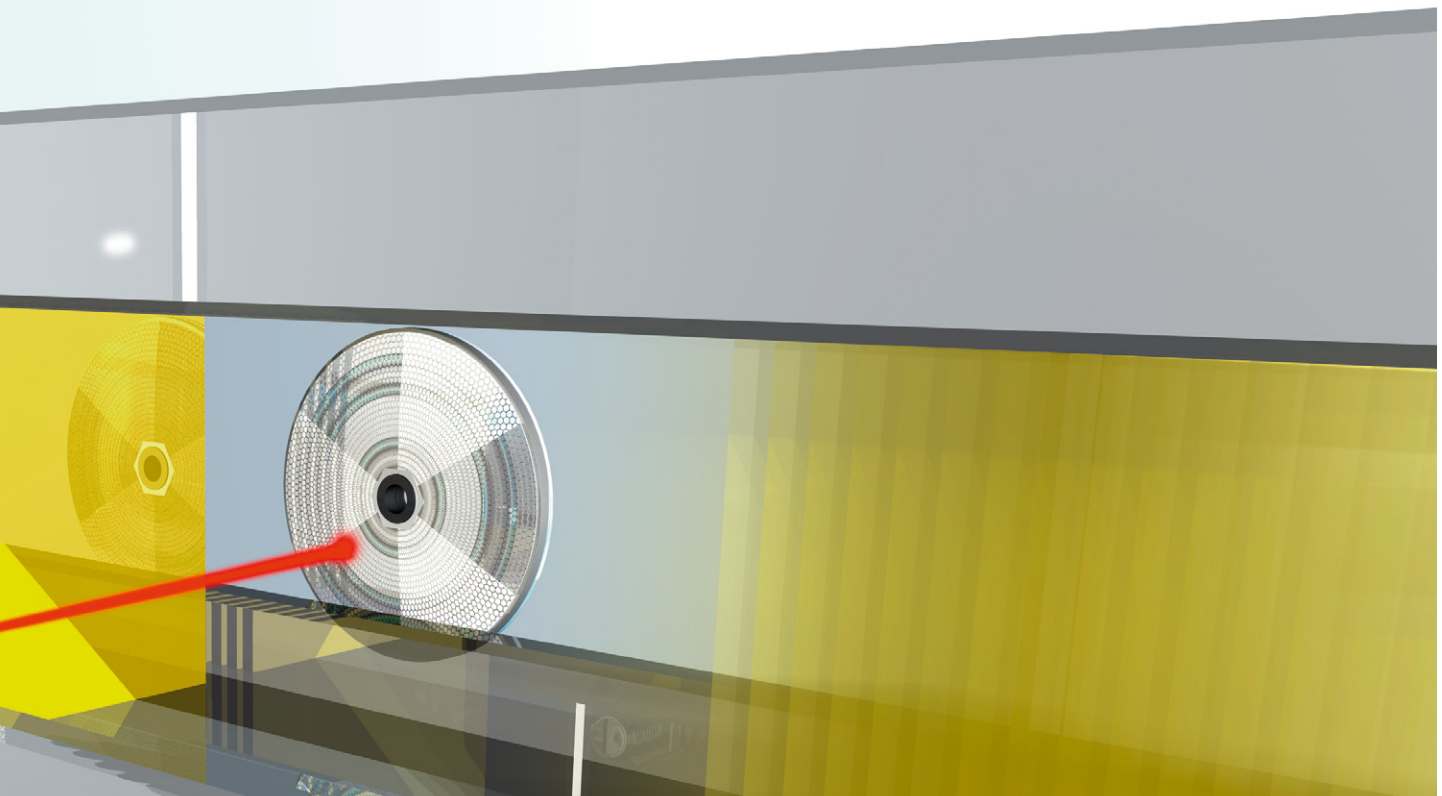
BOS 12M
BOS 18M
BOS 18KF

16
20
24

Fork Sensors

BGL

32



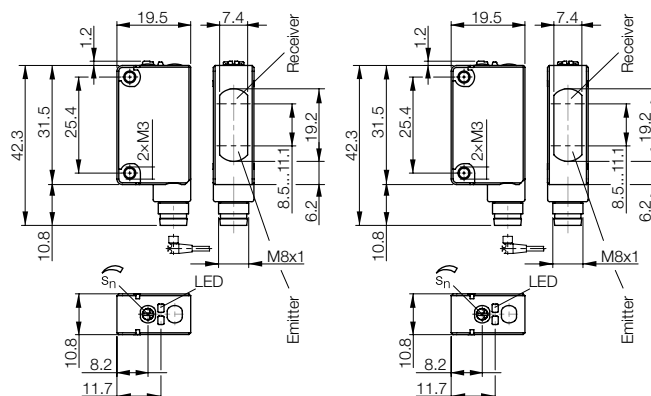
Preferred variants
available immediately



Type			Diffuse sensor with background suppression 20...200 mm	Diffuse sensor with background suppression 40...200 mm	
Detection range					
PNP NO		Order code	BOS015U	BOS012A	
		Part number	BOS 5K-PS-RH12-S49	BOS 5K-PS-RH12-S75	
PNP NC		Order code	BOS015W	BOS011Z	
		Part number	BOS 5K-PO-RH12-S49	BOS 5K-PO-RH12-S75	
NPN NO		Order code	BOS015Y	BOS011F	
		Part number	BOS 5K-NS-RH12-S49	BOS 5K-NS-RH12-S75	
NPN NC		Order code	BOS015Z	BOS0112	
		Part number	BOS 5K-NO-RH12-S49	BOS 5K-NO-RH12-S75	
Supply voltage U_s			10...30 V DC	10...30 V DC	
Output current			100 mA	100 mA	
No-load supply current I_0 max.			≤ 30 mA	≤ 30 mA	
Polarity reversal/short-circuit protected			Yes/Yes	Yes/Yes	
Settings			Potentiometer, 6-turn	Potentiometer, 6-turn	
Emitter, light type			LED, red light	LED, red light	
Switching frequency f			500 Hz	500 Hz	
Degree of protection as per IEC 60529			IP 67	IP 67	
Ambient temperature T_a			-25...+55 °C	-25...+55 °C	
Material	Housing		PC/PBT	PC/PBT	
	Optical surface		PC	PC	
Connection			M8 connector, 4-pin	M8 connector, 4-pin	

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

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M8, 4-pin/straight	2 m/PVC	BCC02PL
M8, 4-pin/angled	2 m/PVC	BCC02PZ
M8, 4-pin/straight	5 m/PVC	BCC02PM
M8, 4-pin/angled	5 m/PVC	BCC02R0

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Recommended accessories

Description	Order code
Mounting bracket	BAM00U5
Mounting bracket	BAM00U6

You can find additional mechanical accessories in
our catalog **Accessories Line**.

Photoelectric Global Sensors

Block design, BOS 5K

Range 200 mm, 900 mm

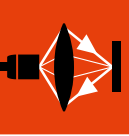
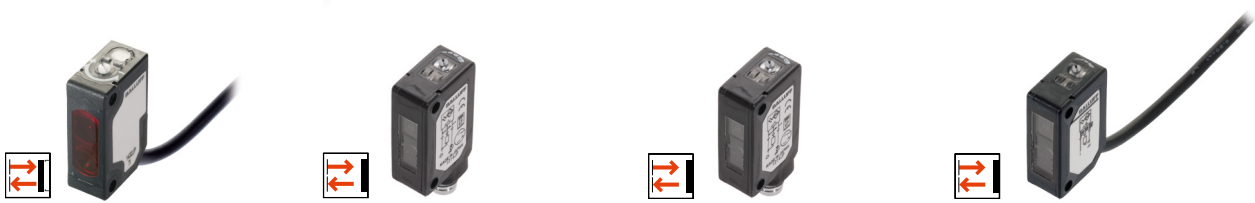
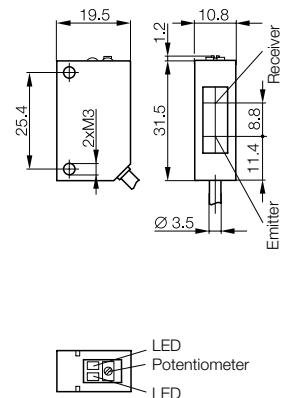
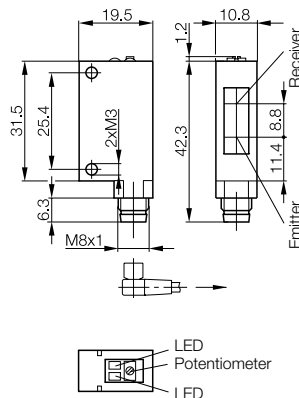
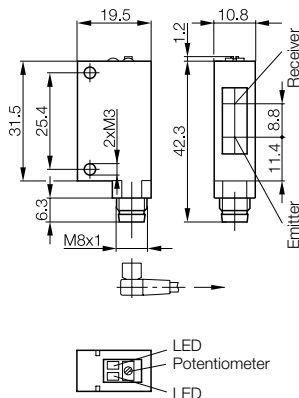
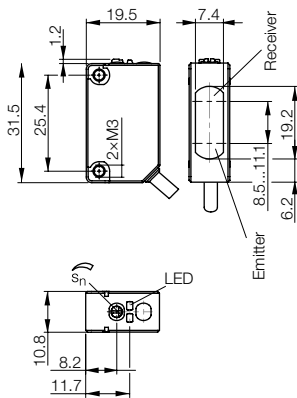


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Global
Sensors

**Block
Design**

Cylinder
Design
Fork Sensors

Diffuse sensor with background suppression 40...200 mm	Diffuse sensor, small beam 50...200 mm	Diffuse sensor 0...900 mm	Diffuse sensor 0...900 mm
BOS0129	BOS0128	BOS0124	BOS0123
BOS 5K-PS-RH12-02	BOS 5K-PS-RD11-S75	BOS 5K-PS-ID10-S75	BOS 5K-PS-ID10-02
BOS011Y	BOS011W	BOS011L	BOS011K
BOS 5K-PO-RH12-02	BOS 5K-PO-RD11-S75	BOS 5K-PO-ID10-S75	BOS 5K-PO-ID10-02
BOS011E	BOS011C	BOS0117	BOS0116
BOS 5K-NS-RH12-02	BOS 5K-NS-RD11-S75	BOS 5K-NS-ID10-S75	BOS 5K-NS-ID10-02
BOS0111	BOS0110	BOS010R	BOS010P
BOS 5K-NO-RH12-02	BOS 5K-NO-RD11-S75	BOS 5K-NO-ID10-S75	BOS 5K-NO-ID10-02
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
100 mA	100 mA	100 mA	100 mA
≤ 30 mA	≤ 30 mA	≤ 30 mA	≤ 30 mA
Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Potentiometer, 6-turn	Potentiometer, 270°	Potentiometer, 270°	Potentiometer, 270°
LED, red light	LED, red light	LED, infrared	LED, infrared
500 Hz	500 Hz	500 Hz	500 Hz
IP 67	IP 67	IP 67	IP 67
-25...+55 °C	-25...+55 °C	-25...+55 °C	-25...+55 °C
PC/PBT	PC/PBT	PC/PBT	PC/PBT
PC	PC	PC	PC
2 m PVC cable, 3x0.2 mm ²	M8 connector, 4-pin	M8 connector, 4-pin	2 m PVC cable, 3x0.2 mm ²



Photoelectric Global Sensors
Block design, BOS 5K
Range 4 m

42.3×10.8×
19.5 mm
Global

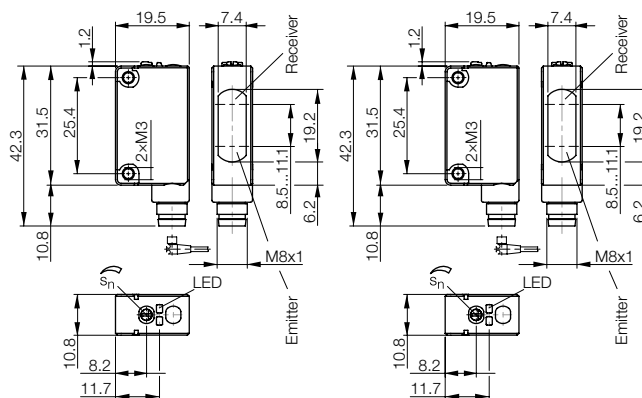
Preferred variants
available immediately



Type			Retroreflective sensor	Retroreflective sensor
Detection range			0.1...4 m	0.1...4 m
PNP NO	Order code		BOS015E	BOS012E
	Part number		BOS 5K-PS-RR10-S49	BOS 5K-PS-RR10-S75
PNP NC	Order code		BOS015C	BOS0121
	Part number		BOS 5K-PO-RR10-S49	BOS 5K-PO-RR10-S75
NPN NO	Order code		BOS015H	BOS011J
	Part number		BOS 5K-NS-RR10-S49	BOS 5K-NS-RR10-S75
NPN NC	Order code		BOS015F	BOS0114
	Part number		BOS 5K-NO-RR10-S49	BOS 5K-NO-RR10-S75
Supply voltage U_S			10...30 V DC	10...30 V DC
Output current			100 mA	100 mA
No-load supply current I_0 max.			≤ 30 mA	≤ 30 mA
Polarity reversal/short-circuit protected			Yes/Yes	Yes/Yes
Settings			Potentiometer, 270°	Potentiometer, 270°
Emitter, light type			LED, red light	LED, red light
Switching frequency f			500 Hz	500 Hz
Degree of protection as per IEC 60529			IP 67	IP 67
Ambient temperature T_a			-25...+55 °C	-25...+55 °C
Material	Housing		PC/PBT	PC/PBT
	Optical surface		PC	PC
Connection			M8 connector, 3-pin	M8 connector, 4-pin

Reference object: white, 90% reflection, 200×200 mm
Reference reflector: BOS R-9

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M8, 4-pin/straight	2 m/PVC	BCC02PL
M8, 4-pin/angled	2 m/PVC	BCC02PZ
M8, 4-pin/straight	5 m/PVC	BCC02PM
M8, 4-pin/angled	5 m/PVC	BCC02R0

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Recommended accessories

Description	Order code
Mounting bracket	BAM00U5
Mounting bracket	BAM00U6
Reflector 51×61 mm	BAM00WL

You can find additional mechanical accessories in
our catalog **Accessories Line**.

Photoelectric Global Sensors

Block design, BOS 5K

Range 4 m, 10 m

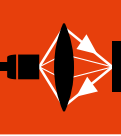
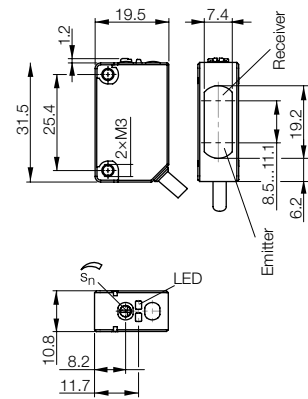
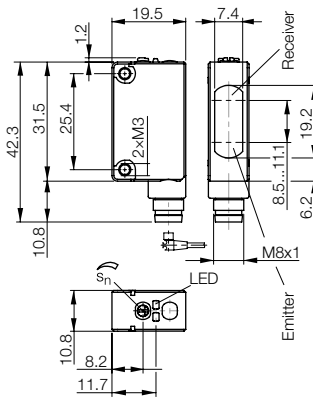
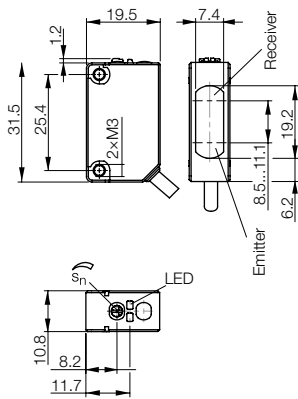


Photo-
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Sensors

**Block
Design**

Cylinder
Design
Fork Sensors

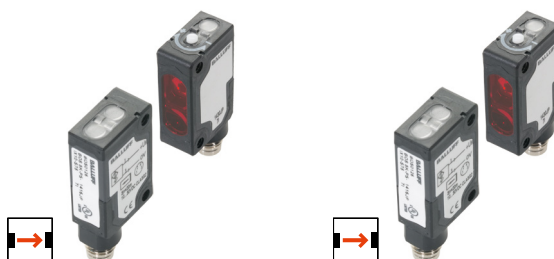
Retroreflective sensor 0.1...4 m	Through-beam sensor 0...10 m	Through-beam sensor 0...10 m
BOS012C	BOS0126	BOS0125
BOS 5K-PS-RR10-02	BOS 5K-PS-IX10-S75	BOS 5K-PS-IX10-02
BOS0120	BOS011R	BOS011N
BOS 5K-PO-RR10-02	BOS 5K-PO-IX10-S75	BOS 5K-PO-IX10-02
BOS0113	BOS0119	BOS0118
BOS 5K-NS-RR10-02	BOS 5K-NS-IX10-S75	BOS 5K-NS-IX10-02
BOS011H	BOS010W	BOS010U
BOS 5K-NO-RR10-02	BOS 5K-NO-IX10-S75	BOS 5K-NO-IX10-02
10...30 V DC	10...30 V DC	10...30 V DC
100 mA	100 mA	100 mA
≤ 30 mA	≤ 20 mA (receiver), ≤ 15 mA (emitter)	≤ 20 mA (receiver), ≤ 15 mA (emitter)
Yes/Yes	Yes/Yes	Yes/Yes
Potentiometer, 270°	Potentiometer, 270°	Potentiometer, 270°
LED, red light	LED, infrared	LED, infrared
500 Hz	500 Hz	500 Hz
IP 67	IP 67	IP 67
-25...+55 °C	-25...+55 °C	-25...+55 °C
PC/PBT	PC/PBT	PC/PBT
PC	PC	PC
2 m PVC cable, 3×0.2 mm ²	M8 connector, 4-pin	2 m PVC cable, 3(2)×0.2 mm ² (emitter)



Photoelectric Global Sensors
Block design, BOS 5K
Range 20 m

42.3×10.8×
19.5 mm
Global

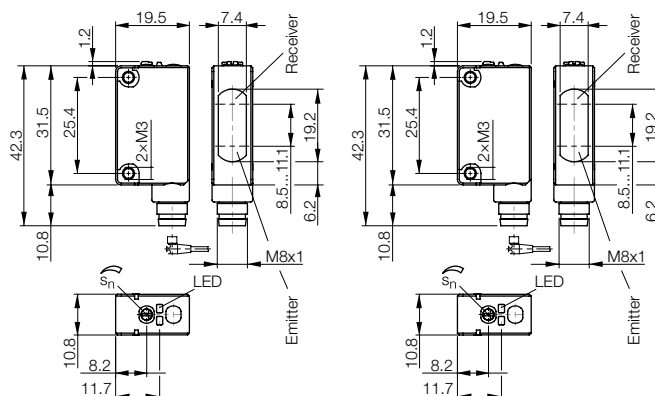
Preferred variants
available immediately



Type	Through-beam sensor		Through-beam sensor
Detection range	0...20 m		0...20 m
PNP NO	Order code	BOS0158	
	Part number	BOS 5K-PS-IX10-S49	
PNP NC	Order code	BOS0157	BOS011T
	Part number	BOS 5K-PO-IX10-S49	BOS 5K-PO-IX10-S75-S
NPN NO	Order code	BOS015A	
	Part number	BOS 5K-NS-IX10-S49	
NPN NC	Order code	BOS0159	BOS010Y
	Part number	BOS 5K-NO-IX10-S49	BOS 5K-NO-IX10-S75-S
Supply voltage U_s	10...30 V DC		10...30 V DC
Output current	100 mA		100 mA
No-load supply current I_0 max.	≤ 20 mA (receiver), ≤15mA (emitter)		≤ 20 mA (receiver), ≤15mA (emitter)
Polarity reversal/short-circuit protected	Yes/Yes		Yes/Yes
Settings	Potentiometer, 270°		Potentiometer, 270°
Emitter, light type	LED, infrared		LED, infrared
Switching frequency f	500 Hz		500 Hz
Degree of protection as per IEC 60529	IP 67		IP 67
Ambient temperature T_a	-25...+55 °C		-25...+55 °C
Material	Housing	PC/PBT	PC/PBT
	Optical surface	PC	PC
Connection	M8 connector, 3-pin		M8 connector, 4-pin

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

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M8, 4-pin/straight	2 m/PVC	BCC02PL
M8, 4-pin/angled	2 m/PVC	BCC02PZ
M8, 4-pin/straight	5 m/PVC	BCC02PM
M8, 4-pin/angled	5 m/PVC	BCC02R0

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Recommended accessories

Description	Order code
Mounting bracket	BAM00U5
Mounting bracket	BAM00U6
Reflector 14×23 mm	BAM00UM
Reflector 51×62 mm	BAM00UY

You can find additional mechanical accessories in
our catalog **Accessories Line**.

Photoelectric Global Sensors

Block design, BOS 5K Laser

Range 300 mm, 10 m, 30 m



Laser Class 1

Preferred variants available immediately

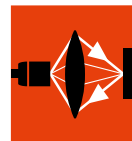


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Sensors

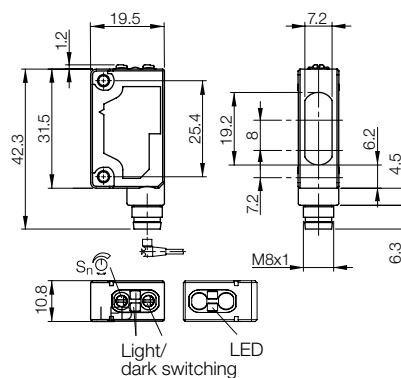
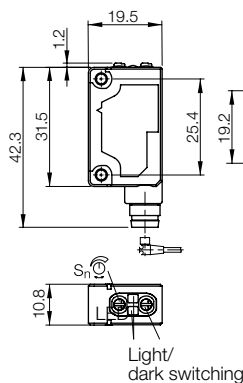
Block
Design

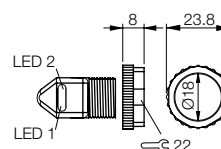
Cylinder
Design
Fork Sensors

Type		Diffuse sensor with background suppression	Retroreflective sensor	Through-beam sensor
Detection range		20...300 mm	0.3...10 m	0...30 m
PNP	Order code	BOS01JK	BOS01JW	BOS01JP
NO/NC	Part number	BOS 5K-PU-LH12-S75	BOS 5K-PU-LR10-S75	BOS 5K-PU-LX10-S75
NPN	Order code	BOS01K0	BOS01JU	BOS01JN
NO/NC	Part number	BOS 5K-NU-LH12-S75	BOS 5K-NU-LR10-S75	BOS 5K-NU-LX10-S75
Supply voltage U_s		10...30 V DC	10...30 V DC	10...30 V DC
Output current		100 mA	100 mA	100 mA
No-load supply current I_0 max.		35 mA	35 mA	35 mA
Polarity reversal/short-circuit protected		Yes/Yes	Yes/Yes	Yes/Yes
Settings		Potentiometer, 270°	Potentiometer, 270°	Potentiometer, 270°
Emitter, light type		Laser, red light	Laser, red light	Laser, red light
Laser class		1	1	1
Switching frequency f		2000 Hz	2000 Hz	2000 Hz
Degree of protection as per IEC 60529		IP 67	IP 67	IP 67
Ambient temperature T_a		-10...+55 °C	-10...+55 °C	-10...+55 °C
Material Housing		PC/PBT	PC/PBT	PC/PBT
Optical surface		PMMA	PMMA	PMMA
Connection		M8 connector, 4-pin	M8 connector, 4-pin	M8 connector, 4-pin

Reference object: white, 90% reflection, 200x200 mm
Reference reflector: BOS R-22

Other variants on our website or on request.





Photoelectric Sensors

Block design, BOS 11K

Range 450 mm, 3.5 m, 6.5 m, 20 m



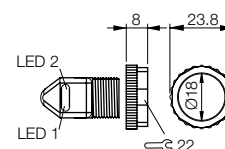
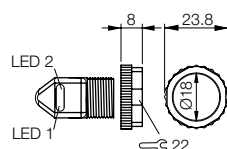
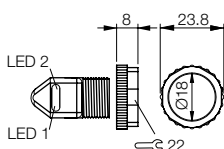
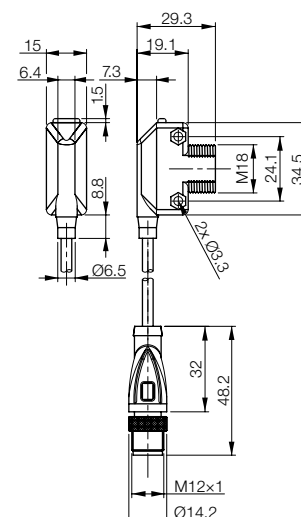
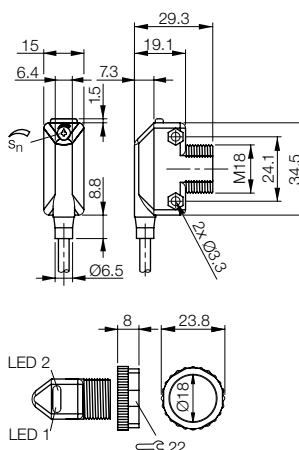
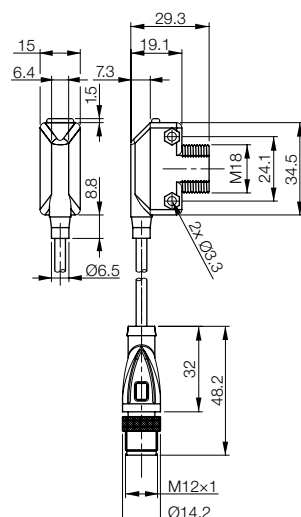
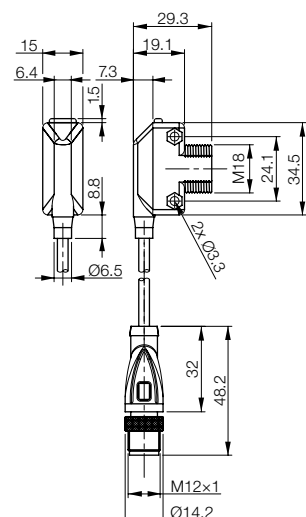
Photo-
electric
Global
Sensors

Block
Design

Cylinder
Design
Fork Sensors



Diffuse sensor	Retroreflective sensor polarized	Retroreflective sensor	Through-beam sensor
10...450 mm	0.5...3.5 m	0.5...6.5 m	20 m
BOS012P	BOS012W	BOS012Z	
BOS 11K-PA-ID10-00,15-S4	BOS 11K-PA-PR10-00,15-S4	BOS 11K-PA-RR10-02	
BOS012F	BOS012L	BOS012N	
BOS 11K-NA-ID10-00,15-S4	BOS 11K-NA-PR10-00,15-S4	BOS 11K-NA-RR10-02	
			BOS0130
			BOS 11K-X-IS11-00,15-S4
			BOS012T
			BOS 11K-PA-IE11-00,15-S4
			BOS012J
			BOS 11K-NA-IE11-00,15-S4
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
100 mA	100 mA	100 mA	100 mA
≤ 25 mA	≤ 25 mA	≤ 25 mA	≤ 25 mA
Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
LED, infrared	LED, red light	Potentiometer, 270°	LED, infrared
500 Hz	500 Hz	500 Hz	500 Hz
IP 67	IP 67	IP 67	IP 67
-20...+55 °C	-20...+55 °C	-20...+55 °C	-25...+55 °C
ABS	ABS	ABS	ABS
PMMA	PMMA	PMMA	PMMA
0.15 m PVC cable with M12 connector, 4-pin	0.15 m PVC cable with M12 connector, 4-pin	2 m PVC cable	0.15 m PVC cable with M12 connector, 4-pin



Photoelectric Sensors
Cylinder design, BOS 12M
Range 60 mm, 200 mm

M12
Global

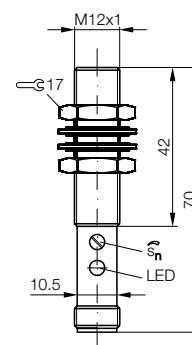
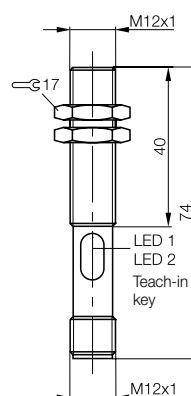
Preferred variants
available immediately



Type		Diffuse sensor with background suppression 10...60 mm	Diffuse sensor 0...200 mm	
Detection range		10...60 mm	0...200 mm	
PNP NO/NC	Order code	BOS007T		
	Part number	BOS 12M-PU-1HA-S4-C		
PNP NO	Order code		BOS000W	
	Part number		BOS 12M-PS-1PB-S4-C	
PNP NC	Order code			
	Part number			
Supply voltage U_S		10...30 V DC	10...30 V DC	
Output current		100 mA	≤ 200 mA	
No-load supply current I_0 max.		≤ 25 mA	≤ 20 mA	
Polarity reversal/short-circuit protected		Yes/Yes	Yes/Yes	
Settings		Teach-in	Potentiometer, 270°	
Emitter, light type		LED, red light	LED, infrared light	
Switching frequency f		1 kHz	200 Hz	
Degree of protection as per IEC 60529		IP 67	IP 67	
Ambient temperature T_a		-20...+60 °C	-5...+55 °C	
Material	Housing	Nickel-plated brass	Nickel-plated brass	
	Optical surface	PMMA	PMMA	
Connection		M12 connector, 4-pin	M12 connector, 4-pin	

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

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Recommended accessories

Description	Order code
Mounting bracket	BAM00C0
Mounting cuff	BAM00C4

You can find additional mechanical accessories in
our catalog **Accessories Line.**

Photoelectric Sensors

Cylinder design, BOS 12M

Range 100 mm, 200 mm, 250 mm

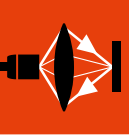
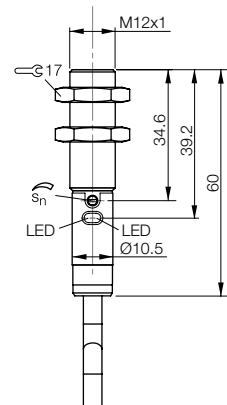
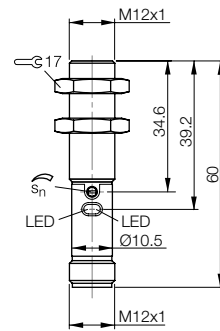
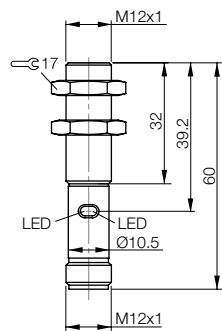
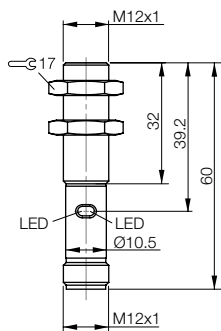


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Design
Fork Sensors

Diffuse sensor	Diffuse sensor	Diffuse sensor	Diffuse sensor
1...100 mm	1...200 mm	1...250 mm	1...250 mm
BOS01TN	BOS01TU	BOS01TP	BOS01TR
BOS 12M-PS-RD11-S4	BOS 12M-PS-RD12-S4	BOS 12M-PS-RD10-S4	BOS 12M-PS-RD10-02
10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
100 mA	100 mA	100 mA	100 mA
20 mA	20 mA	20 mA	20 mA
Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
LED, red light	LED, red light	Potenzimeter 270°	Potenzimeter 270°
1000 Hz	1000 Hz	LED, red light	LED, red light
IP67	IP67	1000 Hz	1000 Hz
-5...+55 °C	-5...+55 °C	IP67	IP67
Nickel-plated brass	Nickel-plated brass	-5...+55 °C	-5...+55 °C
PMMA	PMMA	Nickel-plated brass	Nickel-plated brass
M12 connector, 4-pin	M12 connector, 4-pin	PMMA	PMMA
		M12 connector, 4-pin	2 m PVC cable, 4x0.34 mm ²



Photoelectric Sensors

Cylinder design, BOS 12M

Range 3 m

M12
Global

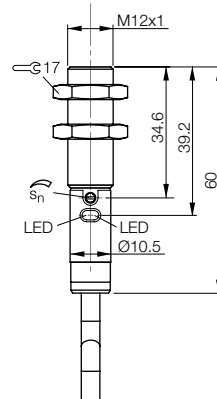
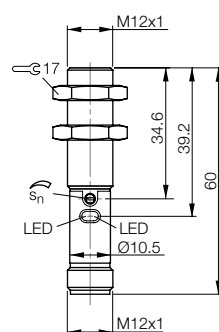
Preferred variants
available immediately



Type		Retroreflective sensor polarized	Retroreflective sensor polarized	
Detection range		0...3 m	0...3 m	
PNP NO	Order code	BOS01TT	BOS01WR	
	Part number	BOS 12M-PS-PR10-S4	BOS 12M-PS-PR10-02	
PNP NC	Order code	BOS01Y1		
	Part number	BOS 12M-PO-PR10-S4		
PNP NC	Ermittler	Order code		
		Part number		
PNP NO	Receiver	Order code		
		Part number		
Supply voltage U_s		10...30 VDC	10...30 VDC	
Output current		100 mA	100 mA	
No-load supply current I_0 max.		20 mA	20 mA	
Polarity reversal/short-circuit protected		Yes/Yes	Yes/Yes	
Settings				
Emitter, light type		LED, red light	LED, red light	
Switching frequency f		1000 Hz	1000 Hz	
Degree of protection as per IEC 60529		IP67	IP67	
Ambient temperature T_a		-5...+55 °C	-5...+55 °C	
Material	Housing	Nickel-plated brass	Nickel-plated brass	
	Optical surface	PMMA	PMMA	
Connection		M12 connector, 4-pin	2 m PVC cable, 3x0.34 mm ²	

Reference object: white, 90% reflection, 200x200 mm
Reference reflector: BOS R-1

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

Recommended accessories

Description	Order code
Mounting bracket	BAM00C0
Mounting cuff	BAM00C4
Reflector Ø 84 mm	BAM00UK

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

You can find additional mechanical accessories in
our catalog **Accessories Line**.

Photoelectric Sensors

Cylinder design, BOS 12M

Range 8 m

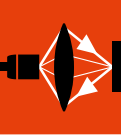
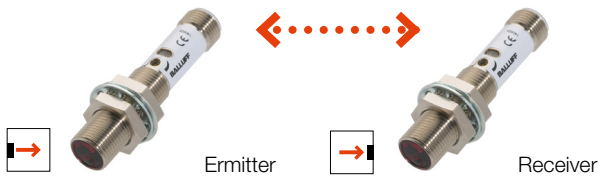
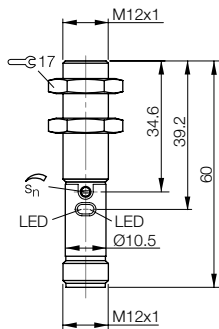
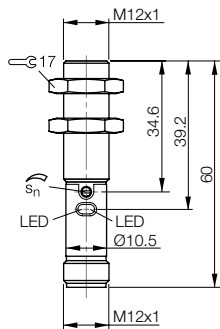


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Fork Sensors



Through-beam sensor	Through-beam sensor		
0...8 m	0...8 m		
BOS01TW			
BOS 12M-X-RS10-S4			
	BOS01TY		
	BOS 12M-PS-RE10-S4		
10...30 VDC	10...30 VDC		
100 mA	100 mA		
20 mA	20 mA		
Yes/Yes	Yes/Yes		
Potenzimeter 270°	Potenzimeter 270°		
LED, red light	LED, red light		
1000 Hz	1000 Hz		
IP67	IP67		
-5...+55 °C	-5...+55 °C		
Nickel-plated brass	Nickel-plated brass		
PMMA	PMMA		
M12 connector, 4-pin	M12 connector, 4-pin		



Photoelectric Global Sensors
Cylinder design, BOS 18M
Range 400 mm, 600 mm

M18
Global

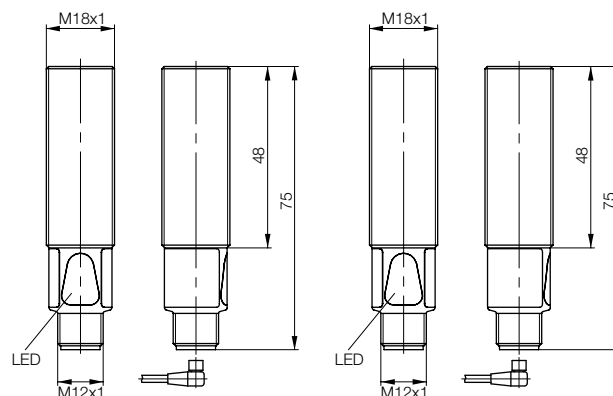
Preferred variants
available immediately



Type		Diffuse sensor 1...400 mm	Diffuse sensor 1...600 mm	
Detection range				
PNP NO	Order code	BOS01FA	BOS01HL	
	Part number	BOS 18M-PS-RD23-S4	BOS 18M-PS-ID23-S4	
PNP NC	Order code	BOS01FC		
	Part number	BOS 18M-PO-RD23-S4		
PNP NO	Polarizing filter	Order code		
		Part number		
PNP NC	Polarizing filter	Order code		
		Part number		
Supply voltage U_S		10...30 V DC	10...30 V DC	
Output current		100 mA	100 mA	
Polarity reversal/short-circuit protected		Yes/Yes	Yes/Yes	
Settings		Fixed	Fixed	
Emitter, light type		LED, red light	LED, infrared	
Received light indicator		Yellow LED	Yellow LED	
Response time		1.25 ms	1.25 ms	
Switching frequency f		400 Hz	400 Hz	
Degree of protection as per IEC 60529		IP 67	IP 67	
Ambient temperature T_a		-5...+55 °C	-5...+55 °C	
Permissible ambient light		10 klx	5 klx	
Material	Housing	Nickel-plated brass	Nickel-plated brass	
	Optical surface	Glass	Glass	
Connection		M12 connector, 4-pin	M12 connector, 4-pin	

Reference object: white, 90% reflection, 200×200 mm
Reference reflector: BOS R-1

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Recommended accessories

Description	Order code
Mounting bracket	BAM00EY
Mounting bracket	BAM00RY
Mounting cuff	BAM00F2
Reflector Ø 84 mm	BAM00UK

You can find additional mechanical accessories in
our catalog **Accessories Line**.



Photoelectric Global Sensors

Cylinder design, BOS 18M

Range 4 m, 6 m

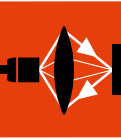
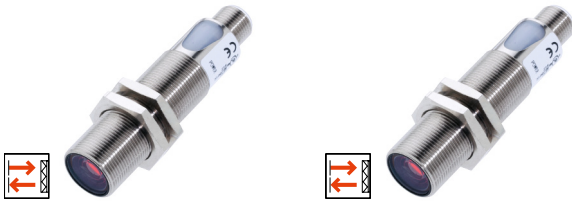


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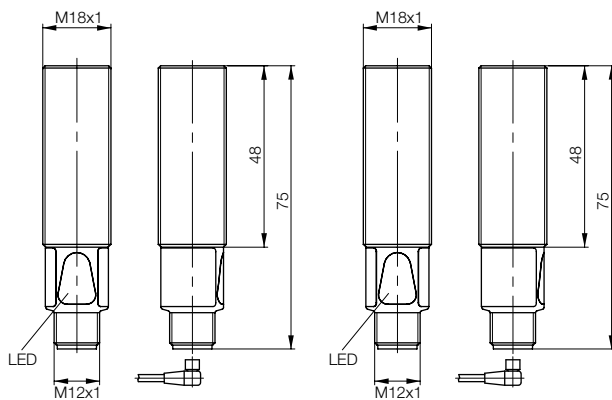
Block
Design

Cylinder
Design

Fork Sensors



	Retroreflective sensor 4 m	Retroreflective sensor 6 m		
		BOS01HK		
		BOS 18M-PS-IR23-S4		
	BOS01F8			
	BOS 18M-PS-PR23-S4			
	BOS01F9			
	BOS 18M-PO-PR23-S4			
	10...30 V DC	10...30 V DC		
	100 mA	100 mA		
	Yes/Yes	Yes/Yes		
	Fixed	Fixed		
	LED, red light	LED, infrared		
	Yellow LED	Yellow LED		
	1.25 ms	1.25 ms		
	400 Hz	400 Hz		
	IP 67	IP 67		
	-5...+55 °C	-5...+55 °C		
	10 klx	5 klx		
	Nickel-plated brass	Nickel-plated brass		
	Glass	Glass		
	M12 connector, 4-pin	M12 connector, 4-pin		



Photoelectric Global Sensors
Cylinder design, BOS 18M
Range 20 m

M18
Global

Preferred variants
available immediately



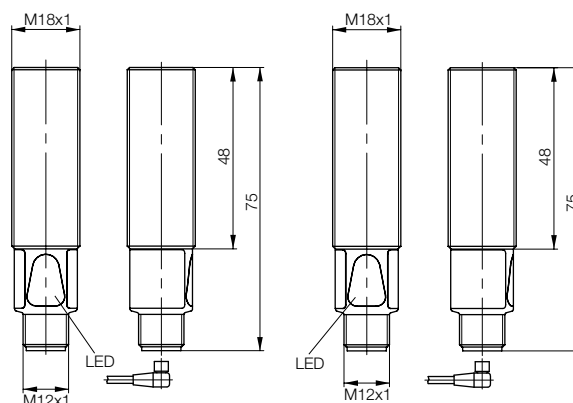
Emitter



Receiver

Type	Through-beam sensor		Through-beam sensor	
Detection range	0...20 m		0...20 m	
PNP NC	Emitter	Order code	BOS01FH	
		Part number	BOS 18M-X-RS23-S4	
PNP NO	Receiver	Order code	BOS01FE	
		Part number	BOS 18M-PS-RE23-S4	
Supply voltage U_s	10...30 V DC		10...30 V DC	
Output current			100 mA	
Polarity reversal/short-circuit protected	Yes/Yes		Yes/Yes	
Settings	Fixed		Fixed	
Emitter, light type	LED, red light		LED, red light	
Received light indicator			Yellow LED	
Response time			1.25 ms	
Switching frequency f			400 Hz	
Degree of protection as per IEC 60529	IP 67		IP 67	
Ambient temperature T_a	-5...+55 °C		-5...+55 °C	
Permissible ambient light	10 klx		10 klx	
Material	Housing	Nickel-plated brass	Nickel-plated brass	
	Optical surface	Glass	Glass	
Connection	M12 connector, 4-pin		M12 connector, 4-pin	

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Recommended accessories

Description	Order code
Mounting bracket	BAM00EY
Mounting bracket	BAM00RY
Mounting cuff	BAM00F2

You can find additional mechanical accessories in
our catalog **Accessories Line**.

Photoelectric Global Sensors

Cylinder design, BOS 18M

Range 50 m

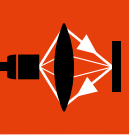
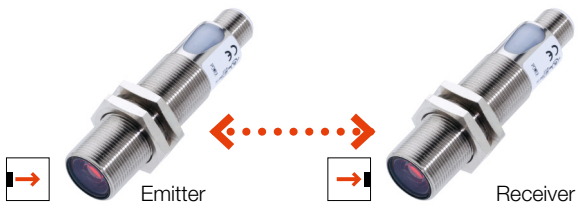
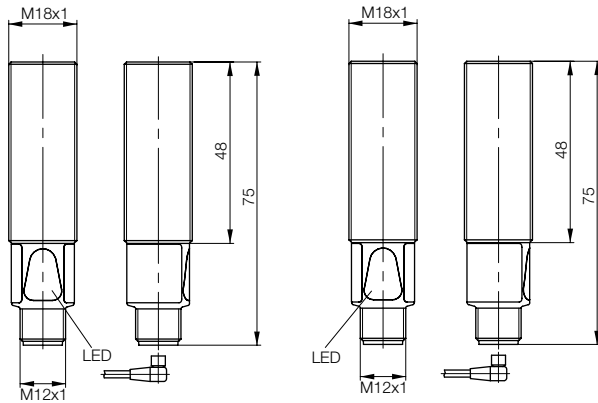


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Fork Sensors



Through-beam sensor 0...50 m BOS01HM BOS 18M-X-IS23-S4	Through-beam sensor 0...50 m BOS01HP BOS 18M-PS-IE23-S4		
10...30 V DC	10...30 V DC		
Yes/Yes	100 mA		
Fixed	Yes/Yes		
LED, infrared	Fixed		
	LED, infrared		
	Yellow LED		
	1.25 ms		
	400 Hz		
IP 67	IP 67		
-5...+55 °C	-5...+55 °C		
5 klx	5 klx		
Nickel-plated brass	Nickel-plated brass		
Glass	Glass		
M12 connector, 4-pin	M12 connector, 4-pin		



Photoelectric Global Sensors
Cylinder design, BOS 18KF
Range 100 mm

M18
Global

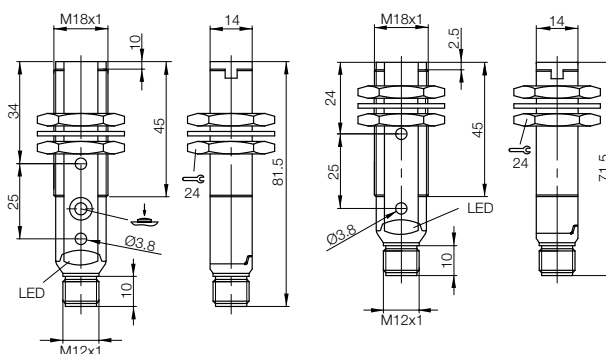
Preferred variants
available immediately



Type	Diffuse sensor with background suppression 50...100 mm		Diffuse sensor with background suppression 5...100 mm	
Detection range				
PNP NC/NO	Order code		BOS00JW	
	Part number		BOS 18KF-PA-1N1R-S4-C	
PNP NC/NO Teach-in	Order code	BOS00JM		
	Part number	BOS 18KF-PA-1HA-S4-C		
NPN NC/NO	Order code			
	Part number			
NPN NC/NO Teach-in	Order code	BOS00HR		
	Part number	BOS 18KF-NA-1HA-S4-C		
Supply voltage U_s	10...30 V DC		10...30 V DC	
Output current	100 mA		100 mA	
No-load supply current I_0 max.	≤ 30 mA		≤ 35 mA	
Switching type	Light and dark switching		Light and dark switching	
Polarity reversal/short-circuit protected	Yes/Yes		Yes/Yes	
Settings	Teach-in		Fixed	
Emitter, light type	LED, red light		LED, red light	
Switching frequency f	500 Hz		1 kHz	
Degree of protection as per IEC 60529	IP 67		IP 67	
Ambient temperature T_a	$-25...+55$ °C		$-25...+55$ °C	
Reference standard	EN 60947-5-2		EN 60947-5-2	
Material	Housing	PBT	PBT	
	Optical surface	PMMA	PMMA	
Connection	M12 connector, 4-pin		M12 connector, 4-pin	

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

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

Recommended accessories

Description	Order code
Mounting bracket	BAM00EY
Mounting bracket	BAM00RY
Clamping holders	BAM00RW

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

You can find additional mechanical accessories in
our catalog **Accessories Line.**

Photoelectric Global Sensors

Cylinder design, BOS 18KF

Range 100 mm, 400 mm

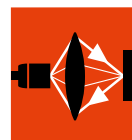


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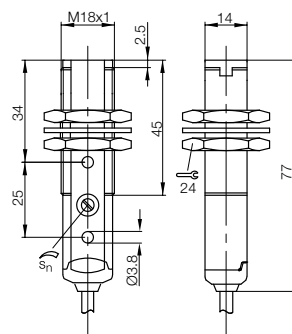
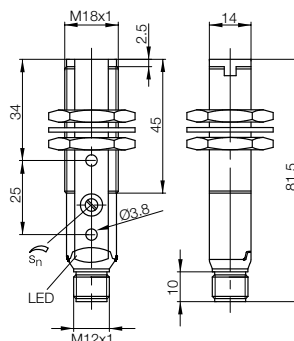
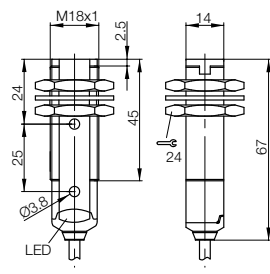
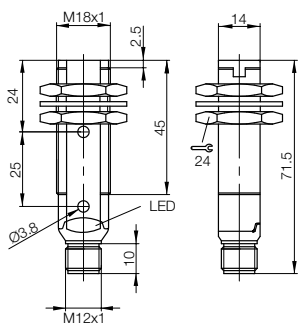
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Design

Cylinder
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Fork Sensors



Diffuse sensor	Diffuse sensor	Diffuse sensor	Diffuse sensor
0...100 mm	0...100 mm	0...400 mm	0...400 mm
BOS00K9	BOS00K8	BOS00JZ	BOS00JY
BOS 18KF-PA-1XA-S4-C	BOS 18KF-PA-1XA-C-02	BOS 18KF-PA-1PD-S4-C	BOS 18KF-PA-1PD-C-02
	BOS00JE	BOS00J3	BOS00J1
	BOS 18KF-NA-1XA-C-02	BOS 18KF-NA-1PD-S4-C	BOS 18KF-NA-1PD-C-02
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
100 mA	100 mA	100 mA	100 mA
≤ 35 mA	≤ 35 mA	≤ 35 mA	≤ 35 mA
Light and dark switching	Light/dark (complementary)	Light/dark (complementary)	Light/dark (complementary)
Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Fixed	Fixed	Potentiometer, 270°	Potentiometer, 270°
LED, infrared	LED, infrared	LED, infrared	LED, infrared
1 kHz	1 kHz	1 kHz	1 kHz
IP 67	IP 67	IP 67	IP 67
-25...+55 °C	-25...+55 °C	-25...+55 °C	-25...+55 °C
EN 60947-5-2	EN 60947-5-2	EN 60947-5-2	EN 60947-5-2
PBT	PBT	PBT	PBT
PMMA	PMMA	PMMA	PMMA
M12 connector, 4-pin	2 m PVC cable, 4x0.14 mm ³	M12 connector, 4-pin	2 m PVC cable, 4x0.14 mm ³



Photoelectric Global Sensors

Cylinder design, BOS 18KF

Range 700 mm

M18
Global

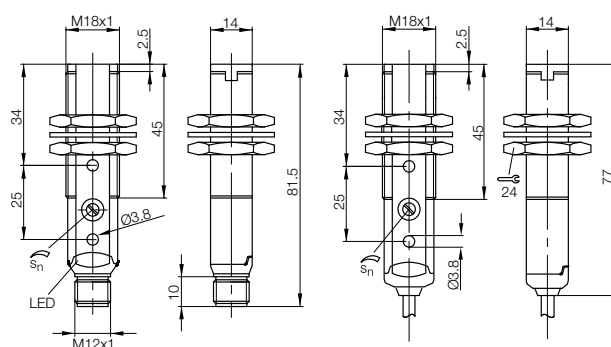
Preferred variants
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Type	Diffuse sensor		Diffuse sensor	
Detection range	0...700 mm		0...700 mm	
PNP NC/NO	Polarizing filter, transparency detection	Order code		
		Part number		
PNP NC/NO	Polarizing filter	Order code		
		Part number		
PNP NC/NO		Order code	BOS00K1	BOS00K0
		Part number	BOS 18KF-PA-1PE-S4-C	BOS 18KF-PA-1PE-C-02
NPN NC/NO	Polarizing filter	Order code		
		Part number		
NPN NC/NO		Order code	BOS00J5	BOS00J4
		Part number	BOS 18KF-NA-1PE-S4-C	BOS 18KF-NA-1PE-C-02
Supply voltage U_s		10...30 V DC	10...30 V DC	
Output current		100 mA	100 mA	
Polarity reversal/short-circuit protected		Yes/Yes	Yes/Yes	
Settings		Potentiometer, 270°	Potentiometer, 270°	
Emitter, light type		LED, infrared	LED, infrared	
Switching frequency f		1 kHz	1 kHz	
Degree of protection as per IEC 60529		IP 67	IP 67	
Ambient temperature T_a		-25...+55 °C	-25...+55 °C	
Reference standard		EN 60947-5-2	EN 60947-5-2	
Material	Housing	PBT	PBT	
	Optical surface	PMMA	PMMA	
Connection		M12 connector, 4-pin	2 m PVC cable, 4x0.14 mm ³	

Reference object: white, 90% reflection, 200x200 mm
Reference reflector: BOS R-1

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Recommended accessories

Description	Order code
Mounting bracket	BAM00EY
Mounting bracket	BAM00RY
Clamping holders	BAM00RW
Reflector Ø 84 mm	BAM00UK

You can find additional mechanical accessories in
our catalog **Accessories Line.**

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Cylinder design, BOS 18KF

Range 1.7 m, 4.5 m, 5 m

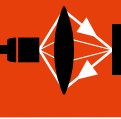
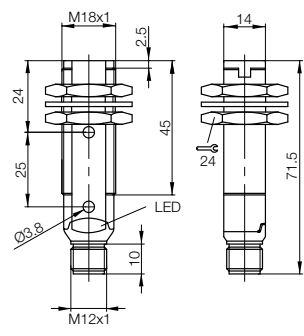
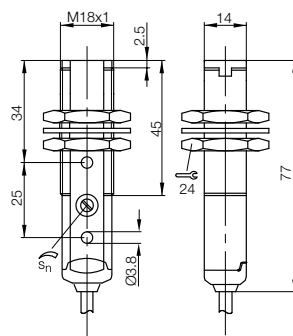
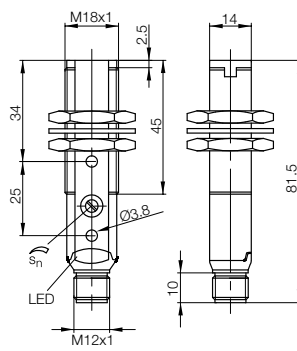
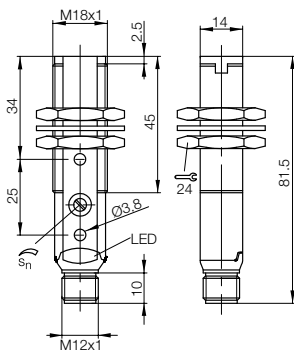


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Retroreflective sensor 0.1...1.7 m	Retroreflective sensor 0.1...4.5 m	Retroreflective sensor 0.1...4.5 m	Retroreflective sensor 0.1...5 m
BOS00K7			
BOS 18KF-PA-1TB-S4-C			
	BOS00K3	BOS00K2	
	BOS 18KF-PA-1QD-S4-C	BOS 18KF-PA-1QD-C-02	
			BOS00K5
			BOS 18KF-PA-1RE-S4-C
	BOS00J7	BOS00J6	
	BOS 18KF-NA-1QD-S4-C	BOS 18KF-NA-1QD-C-02	
			BOS00J9
			BOS 18KF-NA-1RE-S4-C
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
100 mA	100 mA	100 mA	100 mA
Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
Potentiometer, 270°	Potentiometer, 270°	Potentiometer, 270°	Fixed
LED, red light	LED, red light	LED, red light	LED, infrared
1 kHz	1 kHz	1 kHz	1 kHz
IP 67	IP 67	IP 67	IP 67
-25...+55 °C	-25...+55 °C	-25...+55 °C	-25...+55 °C
EN 60947-5-2	EN 60947-5-2	EN 60947-5-2	EN 60947-5-2
PBT	PBT	PBT	PBT
PMMA	PMMA	PMMA	PMMA
M12 connector, 4-pin	M12 connector, 4-pin	2 m PVC cable, 4x0.14 mm ³	M12 connector, 4-pin



Photoelectric Global Sensors
Cylinder design, BOS 18KF
Range 20 m

M18
Global

Preferred variants
available immediately



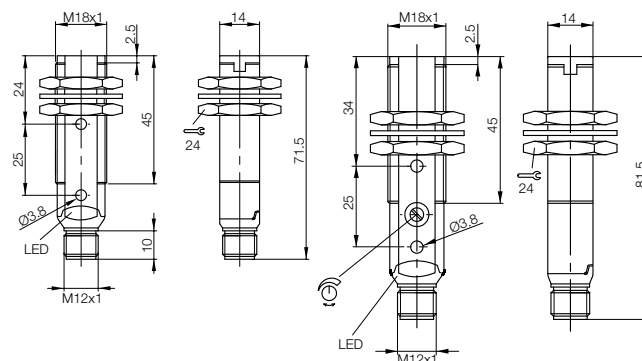
Emitter



Receiver

Type	Through-beam sensor			Through-beam sensor	
Detection range	0...20 m			0...20 m	
PNP NC/NO	Emitter	Order code	BOS00EP		
		Part number	BLS 18KF-XX-1P-S4-L		
PNP NC/NO	Receiver	Order code		BOS00CK	
		Part number		BLE 18KF-PA-1PP-S4-C	
NPN NC/NO	Receiver	Order code		BOS00CE	
		Part number		BLE 18KF-NA-1PP-S4-C	
Supply voltage U_S	10...30 V DC			10...30 V DC	
Output current				100 mA	
No-load supply current I_0 max.	≤ 35 mA			≤ 30 mA	
Polarity reversal/short-circuit protected	Yes/Yes			Yes/Yes	
Settings				Potentiometer, 270°	
Help functions	Test input				
Emitter, light type	LED, infrared				
Switching frequency f				250 Hz	
Degree of protection as per IEC 60529	IP 67			IP 67	
Ambient temperature T_a	-25...+55 °C			-25...+55 °C	
Reference standard	EN 60947-5-2			EN 60947-5-2	
Material	Housing	PBT		PBT	
	Optical surface	PMMA		PMMA	
Connection	M12 connector, 4-pin			M12 connector, 4-pin	

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Recommended accessories

Description	Order code
Mounting bracket	BAM00EY
Mounting bracket	BAM00RY
Clamping holder	BAM00RW

You can find additional mechanical accessories in
our catalog **Accessories Line.**

Photoelectric Global Sensors
Cylinder design, BOS 18KF Laser
Range 350 mm, 16 m

M18
Laser
Global

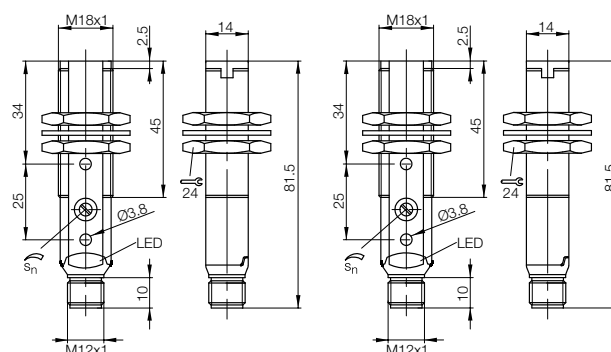
Preferred variants
available immediately



Type	Diffuse sensor 0...350 mm		Retroreflective sensor 0.1...16 m	
Detection range				
Emitter	Order code			
	Part number			
PNP NC/NO Receiver	Order code			
	Part number			
PNP NC/NO	Order code			
	Part number			
PNP NC/NO Polarizing filter	Order code			
	Part number			
NPN NC/NO	Order code			
	Part number			
NPN NC/NO Polarizing filter	Order code			
	Part number			
Supply voltage U_s	10...30 V DC		10...30 V DC	
Output current	100 mA		100 mA	
Polarity reversal/short-circuit protected	Yes/Yes		Yes/Yes	
Settings	Potentiometer, 270°		Potentiometer, 270°	
Emitter, light type	Laser, red light		Laser, red light	
Laser class	1		1	
Switching frequency f	1.5 kHz		1.5 kHz	
Degree of protection as per IEC 60529	IP 67		IP 67	
Ambient temperature T_a	-10...+50 °C		-10...+50 °C	
Reference standard	EN 60947-5-2		EN 60947-5-2	
Material	Housing		Housing	
	Optical surface		Optical surface	
Connection	M12 connector, 4-pin		M12 connector, 4-pin	

Reference object: white, 90% reflection, 200×200 mm
Reference reflector: BOS R-1

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

Recommended accessories

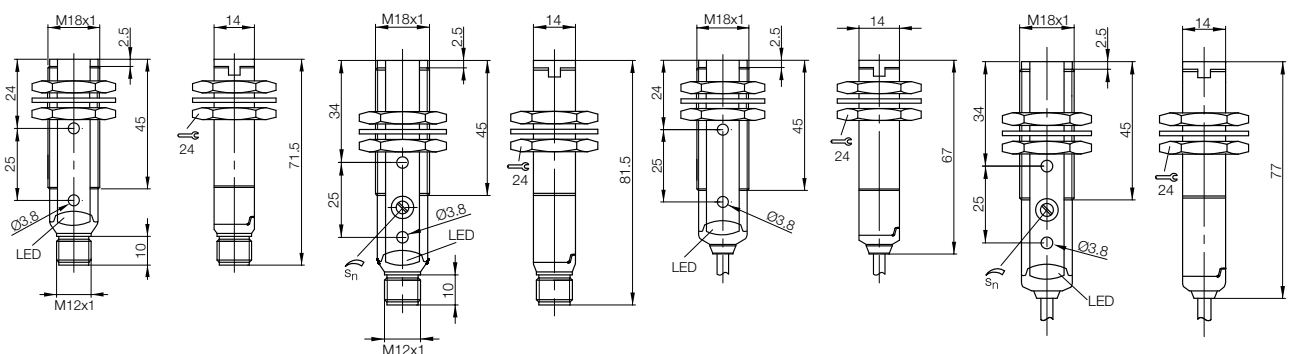
Description	Order code
Mounting bracket	BAM00EY
Mounting bracket	BAM00RY
Clamping holders	BAM00RW

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

You can find additional mechanical accessories in
our catalog **Accessories Line.**



	Through-beam sensor 0...60 m	Through-beam sensor 0...60 m	Through-beam sensor 0...60 m	Through-beam sensor 0...60 m
	BOS00EM		BOS00EL	
	BLS 18KF-XX-1LT-S4-L		BLS 18KF-XX-1LT-L-02	
		BOS00CH		BOS00CF
		BLE 18KF-PA-1LT-S4-C		BLE 18KF-PA-1LT-C-02
	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
	Yes/Yes	100 mA	Yes/Yes	100 mA
		Yes/Yes		Yes/Yes
		Potentiometer, 270°		Potentiometer, 270°
	Laser, red light		Laser, red light	
	1		1	
		1.5 kHz		1.5 kHz
	IP 67	IP 67	IP 67	IP 67
	-10...+50 °C	-10...+50 °C	-10...+50 °C	-10...+50 °C
	EN 60947-5-2	EN 60947-5-2	EN 60947-5-2	EN 60947-5-2
	PBT	PBT	PBT	PBT
	PMMA	PMMA	PMMA	PMMA
	M12 connector, 4-pin	M12 connector, 4-pin	2 m PVC cable, 4x0.14 mm²	2 m PVC cable, 4x0.14 mm²

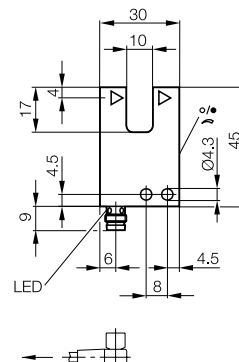
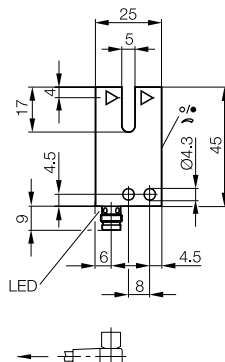


Preferred variants
available immediately



Series		BGL	BGL
Fork opening		5 mm	10 mm
Fork depth		17 mm	17 mm
PNP NO/NC	Order code	BGL001W	BGL0001
	Part number	BGL 5A-001-S49	BGL 10A-001-S49
NPN NO/NC	Order code	BGL001Y	BGL0002
	Part number	BGL 5A-002-S49	BGL 10A-002-S49
Supply voltage U_s		10...30 V DC	10...30 V DC
Output current		200 mA	200 mA
Polarity reversal/short-circuit protected		Yes/Yes	Yes/Yes
Settings		Potentiometer, 270°	Potentiometer, 270°
Emitter, light type		LED, red light	LED, red light
Resolution (smallest discernible part)		0.3 mm	0.3 mm
Repeat accuracy		20 µm	20 µm
Switching hysteresis		≤ 0.1 mm	≤ 0.1 mm
Switching frequency		3 kHz	3 kHz
Degree of protection as per IEC 60529		IP 67	IP 67
Ambient temperature T_a		-10...+60 °C	-10...+60 °C
Ambient light limit according to		EN 60947-5-2	EN 60947-5-2
Material	Housing	GD-Zn	GD-Zn
	Optical surface	Glass	Glass
Connection		M8 connector, 3-pin	M8 connector, 3-pin

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M8, 3-pin/straight	2 m/PVC	BCC02NU
M8, 3-pin/angled	2 m/PVC	BCC02P5
M8, 3-pin/straight	5 m/PVC	BCC02NW
M8, 3-pin/angled	5 m/PVC	BCC02P6

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Photoelectric Global Sensors

Fork sensors BGL

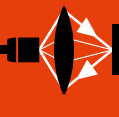
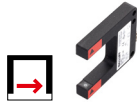
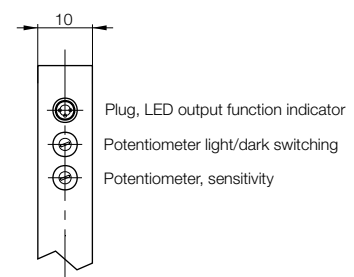
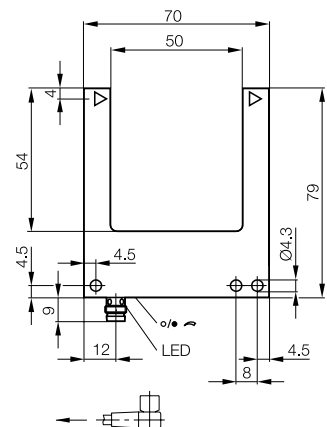
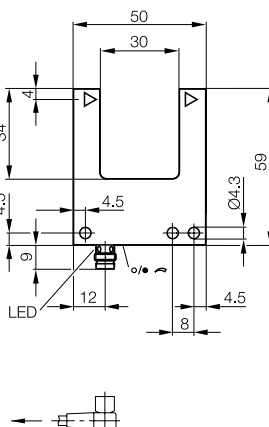
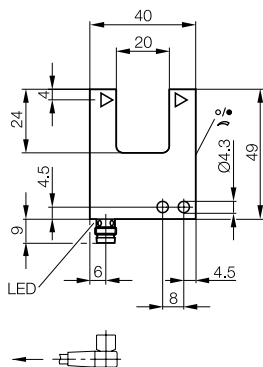


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Cylinder
Design
Fork Sensors



BGL 20 mm 24 mm	BGL 30 mm 34 mm	BGL 50 mm 54 mm
BGL000R	BGL0016	BGL001J
BGL 20A-001-S49	BGL 30A-001-S49	BGL 50A-001-S49
BGL000T	BGL0018	BGL001L
BGL 20A-002-S49	BGL 30A-002-S49	BGL 50A-002-S49
10...30 V DC	10...30 V DC	10...30 V DC
200 mA	200 mA	200 mA
Yes/Yes	Yes/Yes	Yes/Yes
Potentiometer, 270°	Potentiometer, 270°	Potentiometer, 270°
LED, red light	LED, red light	LED, red light
0.3 mm	0.3 mm	0.4 mm
20 µm	20 µm	40 µm
≤ 0.1 mm	≤ 0.1 mm	≤ 0.15 mm
1.5 kHz	1.5 kHz	1.5 kHz
IP 67	IP 67	IP 67
-10...+60 °C	-10...+60 °C	-10...+60 °C
EN 60947-5-2	EN 60947-5-2	EN 60947-5-2
GD-Zn	GD-Zn	GD-Zn
Glass	Glass	Glass
M8 connector, 3-pin	M8 connector, 3-pin	M8 connector, 3-pin

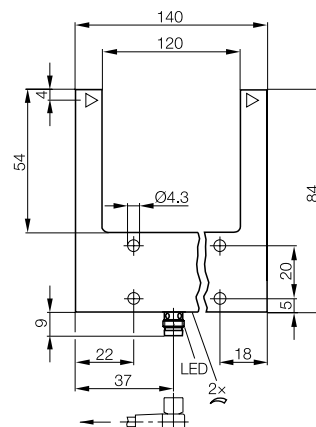
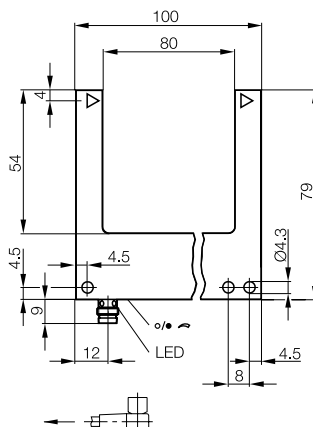


Preferred variants
available immediately



Series		BGL	BGL	
Fork opening		80 mm	120 mm	
Fork depth		54 mm	54 mm	
PNP NO/NC	Order code	BGL0023	BGL0007	
	Part number	BGL 80A-001-S49	BGL 120A-001-S49	
NPN NO/NC	Order code	BGL0024	BGL0008	
	Part number	BGL 80A-002-S49	BGL 120A-002-S49	
Supply voltage U_s		10...30 V DC	10...30 V DC	
Output current		200 mA	200 mA	
Polarity reversal/short-circuit protected		Yes/Yes	Yes/Yes	
Settings		Potentiometer, 270°	Potentiometer, 270°	
Emitter, light type		LED, red light	LED, red light	
Resolution (smallest discernible part)		0.4 mm	0.5 mm	
Repeat accuracy		60 µm	80 µm	
Switching hysteresis		≤ 0.2 mm	≤ 0.2 mm	
Switching frequency		1.5 kHz	1.5 kHz	
Degree of protection as per IEC 60529		IP 67	IP 67	
Ambient temperature T_a		-10...+60 °C	-10...+60 °C	
Ambient light limit according to		EN 60947-5-2	EN 60947-5-2	
Material	Housing	GD-Zn	GD-Zn	
	Optical surface	Glass	Glass	
Connection		M8 connector, 3-pin	M8 connector, 3-pin	

Other variants on our website or on request.



Suitable connectors

Size/design	Length/cable material	Order code
M8, 3-pin/straight	2 m/PVC	BCC02NU
M8, 3-pin/angled	2 m/PVC	BCC02P5
M8, 3-pin/straight	5 m/PVC	BCC02NW
M8, 3-pin/angled	5 m/PVC	BCC02P6

You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

Photoelectric Global Sensors

Fork sensors BGL

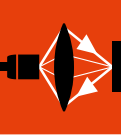


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Fork Sensors



BGL	BGL	
180 mm	220 mm	
114 mm	114 mm	
BGL000J	BGL0010	
BGL 180A-001-S49	BGL 220A-001-S49	
BGL000K	BGL0011	
BGL 180A-002-S49	BGL 220A-002-S49	
10...30 V DC	10...30 V DC	
200 mA	200 mA	
Yes/Yes	Yes/Yes	
Potentiometer, 270°	Potentiometer, 270°	
LED, red light	LED, red light	
0.6 mm	0.6 mm	
80 µm	80 µm	
≤ 0.2 mm	≤ 0.2 mm	
1.5 kHz	1.5 kHz	
IP 67	IP 67	
-10...+60 °C	-10...+60 °C	
EN 60947-5-2	EN 60947-5-2	
GD-Zn	GD-Zn	
Glass	Glass	
M8 connector, 3-pin	M8 connector, 3-pin	

