

BALLUFF

sensors worldwide

Global Sensors

The complete series for standard applications





As the leading sensor specialist and system provider with more than 90 years of company tradition, Balluff GmbH has been a recognized partner in factory automation for decades. The global player has a strong presence with 56 sales branches and representative offices as well as nine production sites on all continents. The corporate headquarters in Neuhausen a.d.F. is located near Stuttgart.

Balluff masters the entire technological variety with various operating principles, including high-quality sensors and systems for position measurement and identification, as well as sensors for detecting objects and measuring fluids. The full-range assortment includes optimal network and connection technology and a comprehensive line of accessory products.

We offer innovative, first-class products tested in our own accredited laboratory, and maintain certified quality management in accordance with DIN EN 9001:2008. Our technology speaks for itself in international applications since it also meets regional standards.

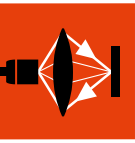
Balluff stands for application-specific customer solutions, comprehensive services, individual consultation and prompt service. Our staff of more than 2750 employees is committed to providing outstanding service worldwide.

Benefit from comprehensive sensor expertise from a single source. Achieve solutions suited to your requirements.



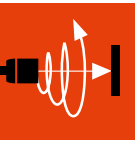
Photoelectric Global Sensors

7



Inductive Global Sensors

36



Capacitive Global Sensors

54



Magnetic Global Cylinder Sensors

69



Accessories

79



Wiring Diagrams

100



Worldwide Sales

104



Global Sensors

Sophisticated sensor technology and accessories for all areas of industrial automation

Global sensors – Your complete series of standard sensors

For object detection, we offer a wide range of top-quality, performance proven products for standard applications. These Global products are economically priced and suitable for all-purpose.

The Global series includes inductive, photoelectric, capacitive and magnetic field sensors – and the matching accessories.

The standard product line can be used globally and complies with the most important international approvals to meet the demands of a global customer base. Most Global products can be supplied in-stock and in high quantities.

Your benefits at a glance

- **Quality products for standard applications**
- **Optimal price/performance ratio**
- **Short delivery time**
- **International certifications such as CE, cULus, etc.**
- **Worldwide applicable and worldwide service.**
- **Tested above and beyond standard**

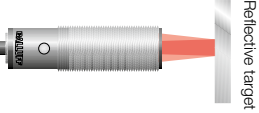
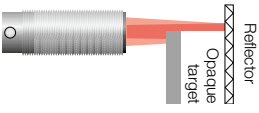
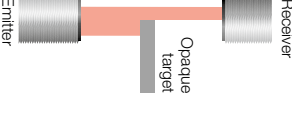
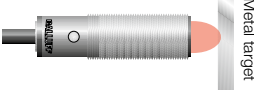
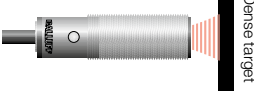
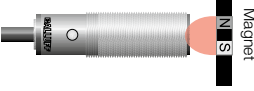
Additional Global products can be found at www.balluff.com in the selector of each product area



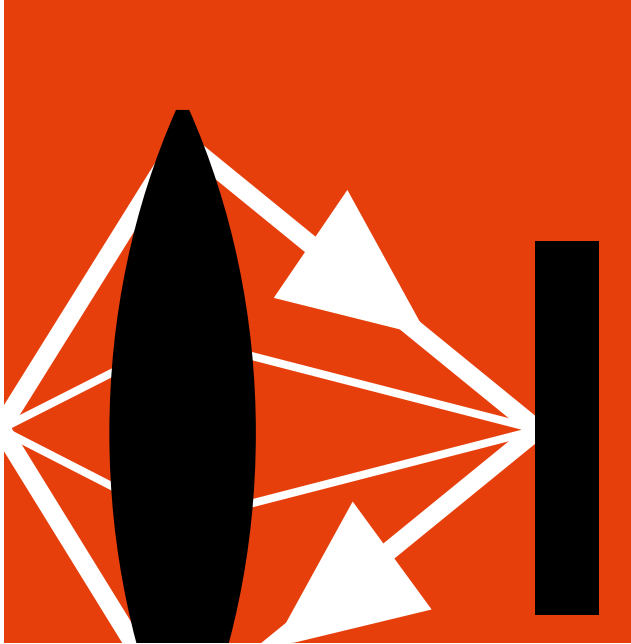
Global



All available sensor technologies

	Description	Range (typ.)	Advantages	Disadvantages	Applications
Photoelectric diffuse 	Detects any target capable of reflecting light	0...900 mm	Wide variety of applications, good for detecting small targets, only install at one point, cost less than through-beam or reflective	Short sensing range, sensitive to dirt, color-dependent	All-purpose, color marking, detecting labels
Photoelectric retroreflective 	Detect all parts that interrupt or reduce the light beam	0...16 m	Sensing range better than diffuse, ideally for conveyors or transparent targets, very reliable	Must install at two points on system: sensor and reflector, slightly more costly than diffuse	Conveyors, large openings, bottle detection
Photoelectric through-beam 	Detect all parts that interrupt or reduce the light beam	0...50 m	Longest sensing range, look through translucent object, very reliable, insensitive to dirt	Must install at two points on system: emitter and receiver	Height detection, control loops, level
Inductive 	Detect different metals based on the magnetic field	0...30 mm	Versatile application highly rugged, especially in difficult environmental conditions, economical, ease of handling	Short detection range, detects only metal targets	All-purpose models, welding, metal cutting, speed measurement
Capacitive object detection (flush) 	Detect parts based on change in density	0...20 mm	For detecting dense materials; adjustable, ease of handling. Even through plastic or glass walls	Small detection range, can be impaired by changes in humidity	Detect objects regardless of color, structure or material
Capacitive level detection (non-flush) 	Detect parts based on change in density	0...25 mm	For detecting bulk material or liquids – in contact with media	Can be impaired by material deposits	Detect objects regardless of color, structure or material
Magnetic 	Detects a magnet	Magnet-dependent	For pneumatic cylinders, detects most objects (except steel). Fits in nearly all standard cylinders	Short range, requires a magnet	Detect the cylinder position





Photoelectric Global Sensors

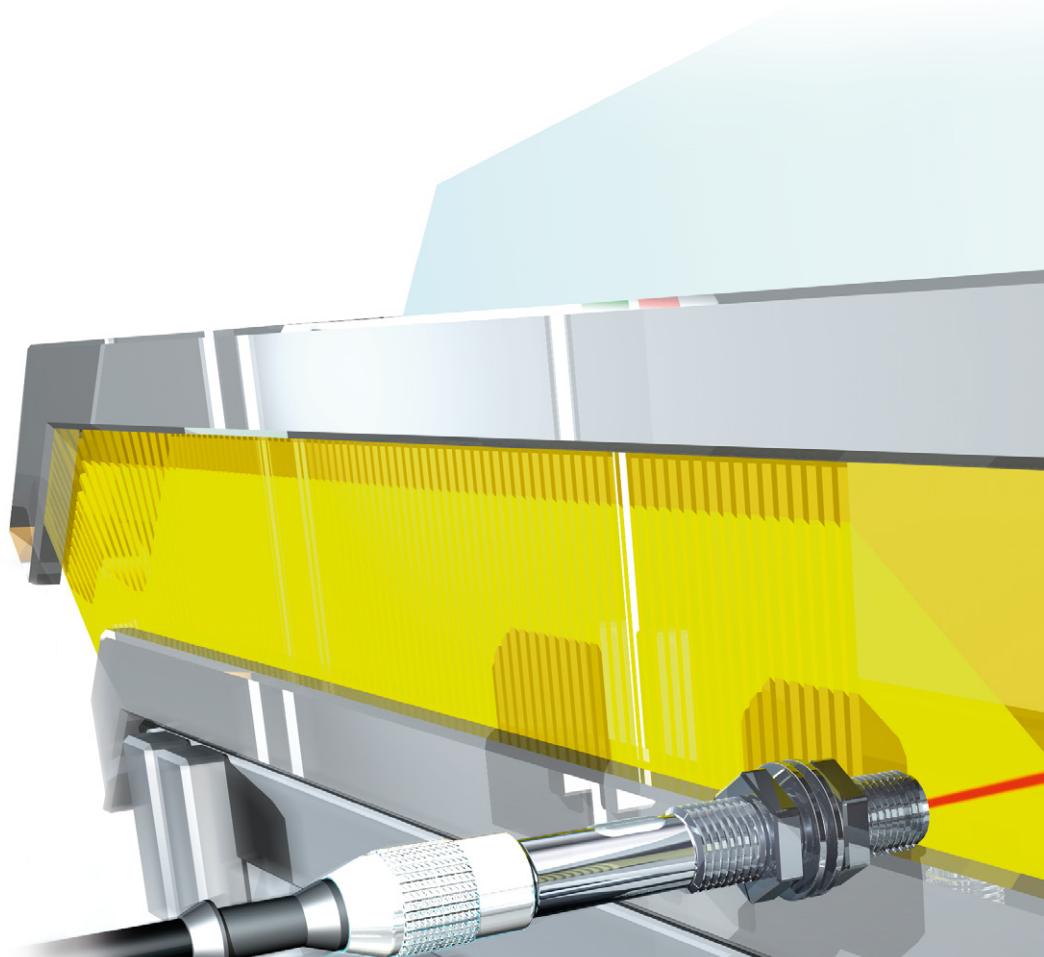
Photoelectric Global sensors – the first choice for your standard applications

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
14



Cylinder Designs

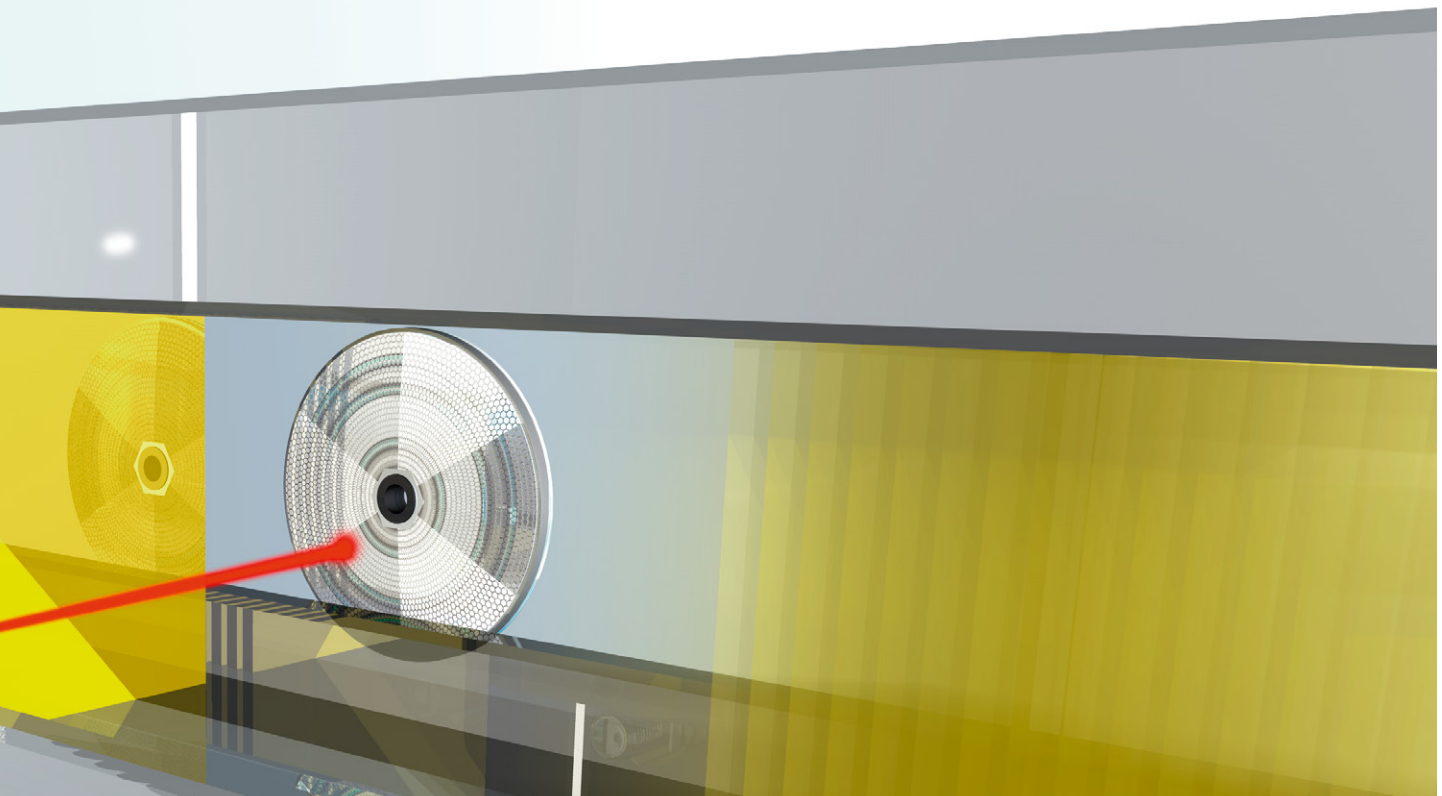
BOS 12M
BOS 18M
BOS 18KF

16
20
24

Fork Sensors

BGL

32



Photoelectric Global Sensors
Block design, BOS 5K
Range 200 mm

42.3×10.8×
19.5 mm
Global

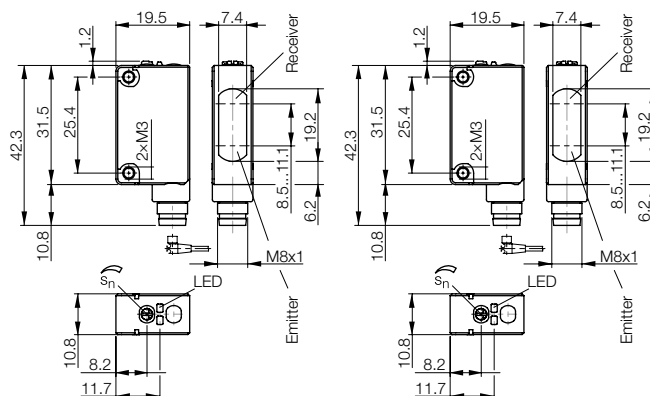
Preferred variants
available immediately



Type			Diffuse sensor with background suppression 20...200 mm	Diffuse sensor with background suppression 40...200 mm	
Detection range			20...200 mm	40...200 mm	
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

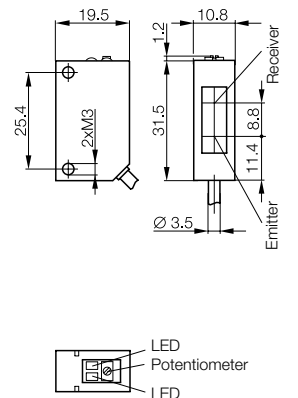
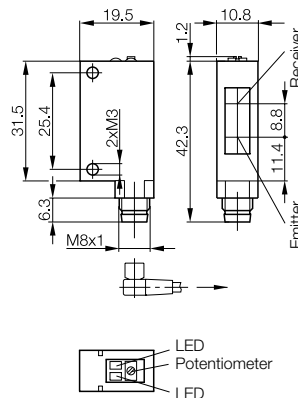
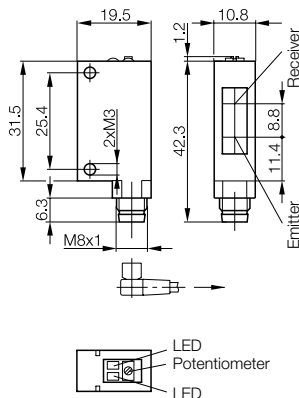
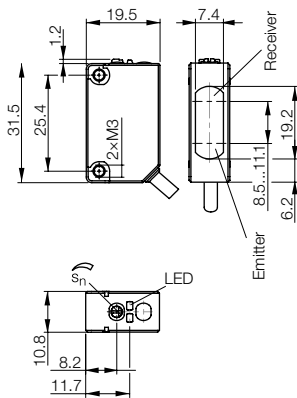


Photo-electric
Global
Sensors

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

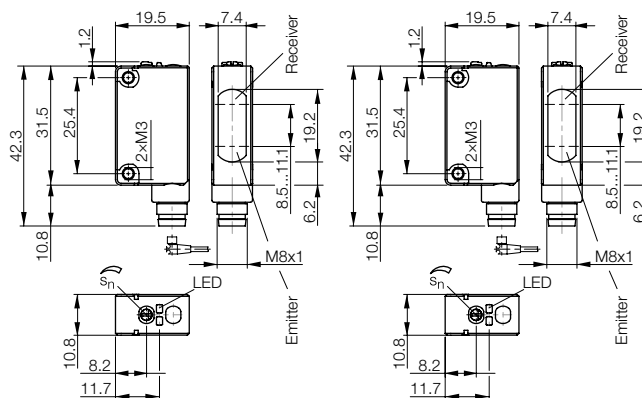
Preferred variants
available immediately



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

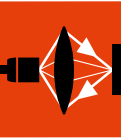
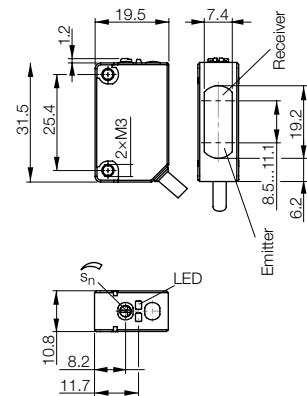
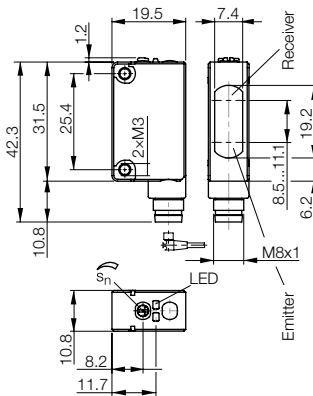
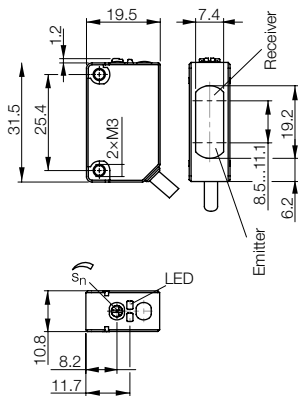


Photo-
electric
Global
Sensors

**Block
Design**

Cylinder
Design
Fork Sensors

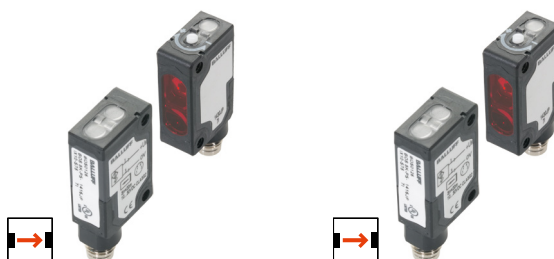
Retroreflective sensor 0.1...4 m	Through-beam sensor 0...10 m	Through-beam sensor 0...10 m
BOS012C	BOS0126	BOS0125
BOS 5K-PS-RR10-02	BOS 5K-PS-IX10-S75	BOS 5K-PS-IX10-02
BOS0120	BOS011R	BOS011N
BOS 5K-PO-RR10-02	BOS 5K-PO-IX10-S75	BOS 5K-PO-IX10-02
BOS0113	BOS0119	BOS0118
BOS 5K-NS-RR10-02	BOS 5K-NS-IX10-S75	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

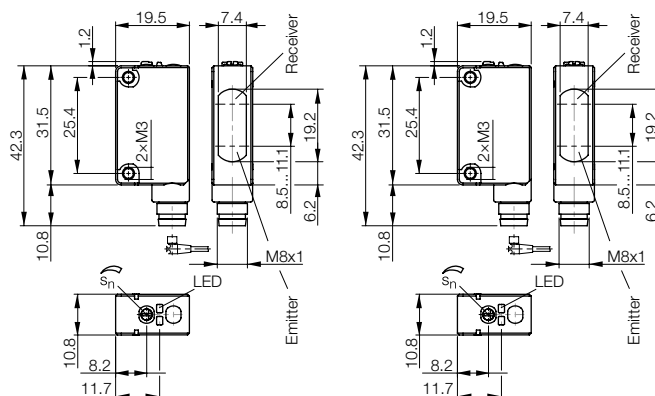
Preferred variants
available immediately



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



Photo-electric
Global
Sensors

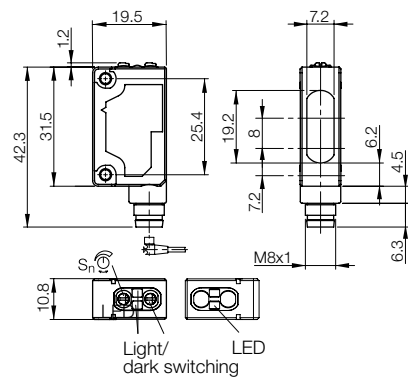
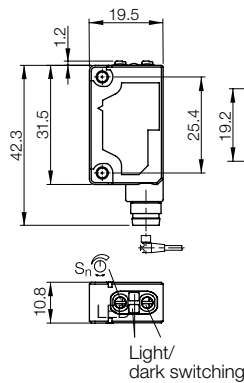
Block
Design

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.



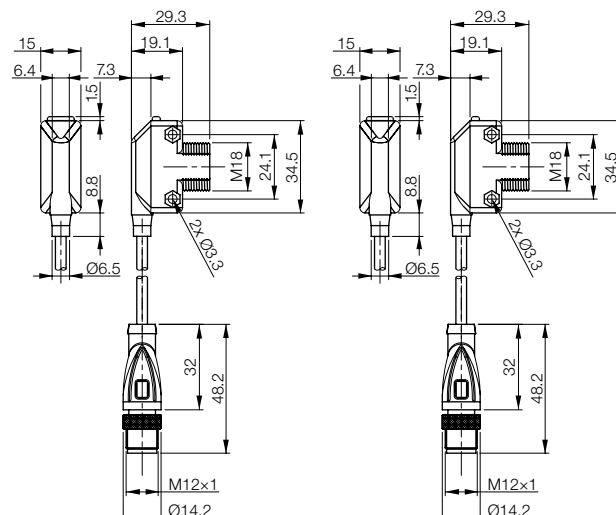
Preferred variants
available immediately



Type		Diffuse sensor with background suppression 10...50 mm	Diffuse sensor with background suppression 10...100 mm	
Detection range		10...50 mm	10...100 mm	
PNP NO/NC	Order code	BOS014R	BOS019A	
	Part number	BOS 11K-PA-RH10-00.15-S4	BOS 11K-PA-RH11-00.15-S4	
NPN NO/NC	Order code	BOS014U	BOS019C	
	Part number	BOS 11K-NA-RH10-00.15-S4	BOS 11K-NA-RH11-00.15-S4	
Emitter	Order code			
	Part number			
Receiver PNP NO/NC	Order code			
	Part number			
Receiver NPN NO/NC	Order code			
	Part number			
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.		≤ 25 mA	≤ 25 mA	
Polarity reversal/short-circuit protected		Yes/Yes	Yes/Yes	
Settings				
Ermittler, 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		-20...+55 °C	-20...+55 °C	
Material	Housing	ABS	ABS	
	Optical surface	PMMA	PMMA	
Connection		0.15 m PVC cable with M12 connector, 4-pin	0.15 m PVC cable with M12 connector, 4-pin	

Reference reflector: BOS R-1

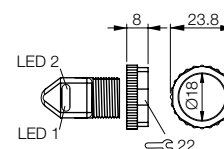
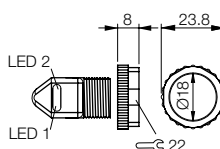
Other variants on our website or on request.



Recommended accessories

Description	Order code
Mounting bracket	BAM00PT

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



Photoelectric Sensors

Block design, BOS 11K

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



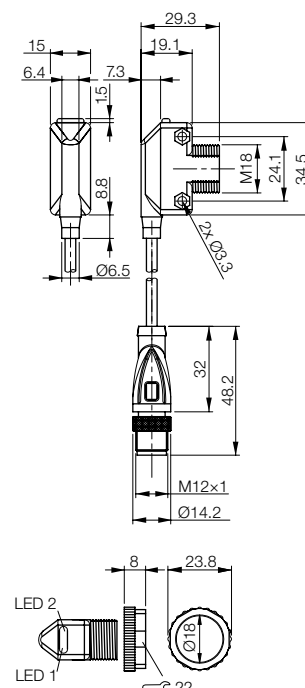
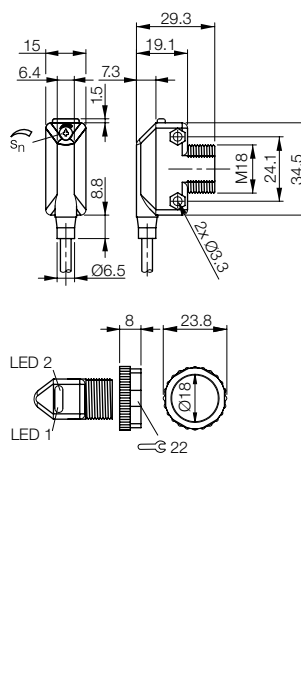
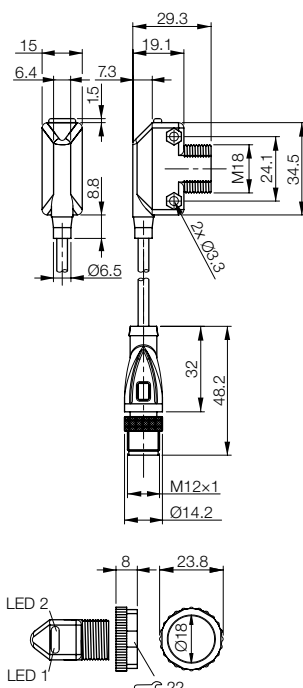
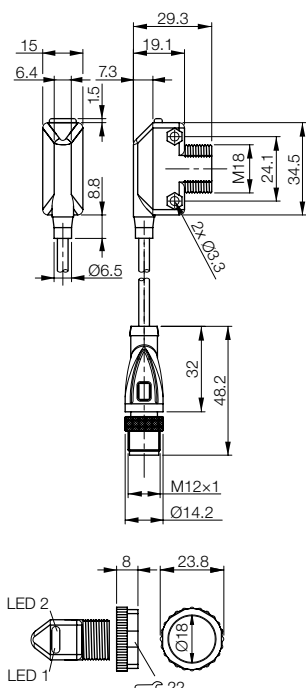
Photo-electric
Global
Sensors

**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

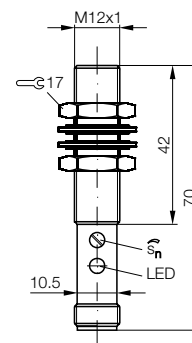
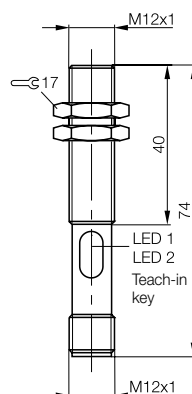
Preferred variants
available immediately



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

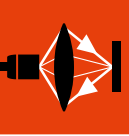
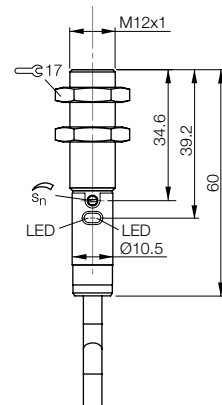
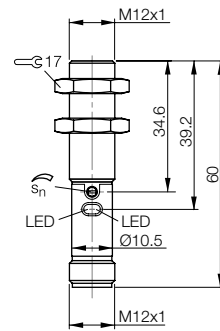
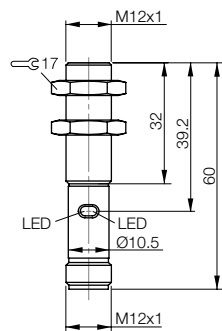
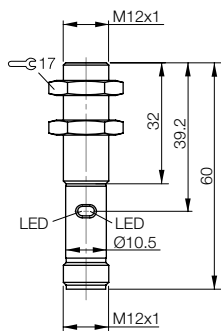


Photo-
electric
Global
Sensors
Block
Design
Cylinder
Design
Fork Sensors

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 mm²



Photoelectric Sensors

Cylinder design, BOS 12M

Range 3 m

M12
Global

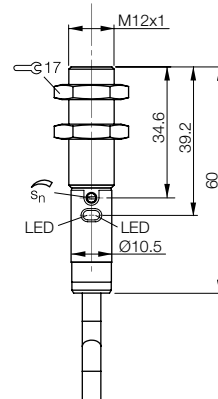
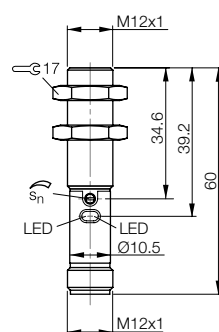
Preferred variants
available immediately



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 Ermitter	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 cabel, 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

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

Recommended accessories

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

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

Photoelectric Sensors

Cylinder design, BOS 12M

Range 8 m

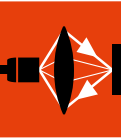
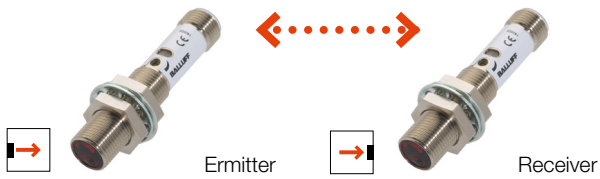
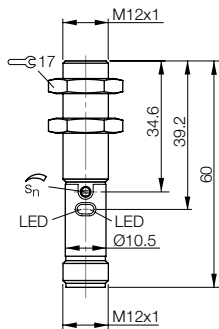
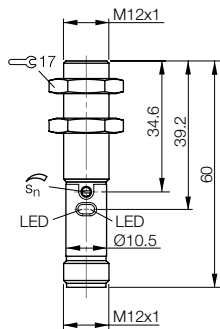


Photo-
electric
Global
Sensors
Block
Design
Cylinder
Design
Fork Sensors



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

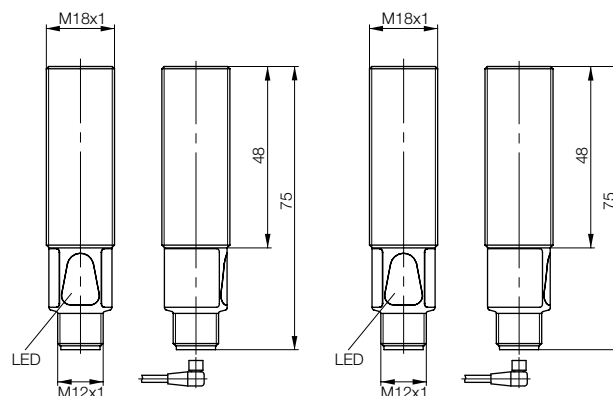
Preferred variants
available immediately



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

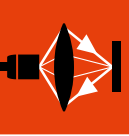
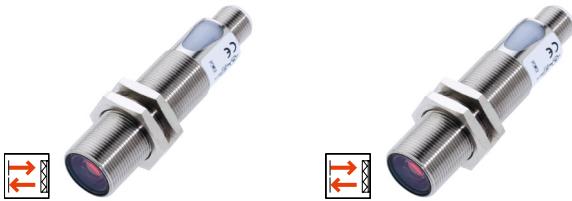


Photo-
electric
Global
Sensors

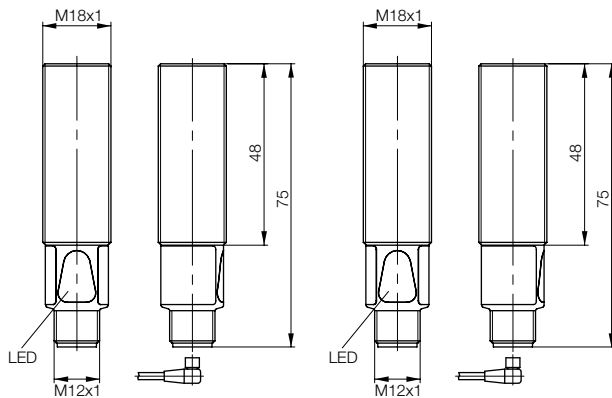
Block
Design

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



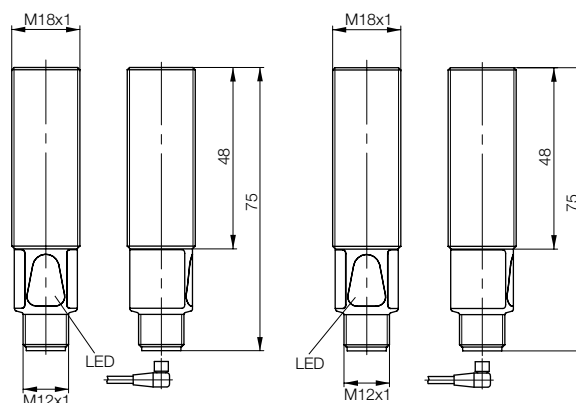
Emitter



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

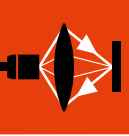
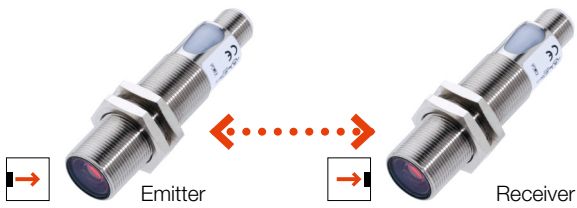
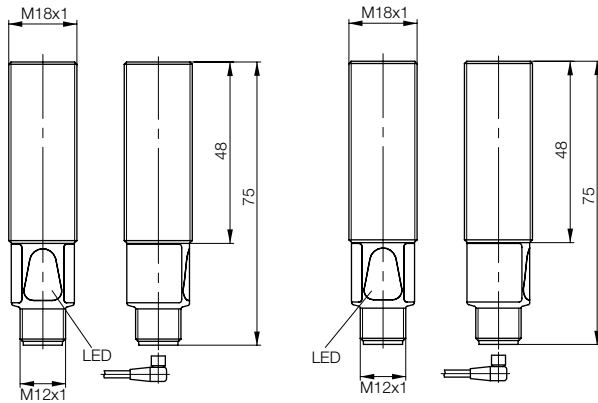


Photo-
electric
Global
Sensors
Block
Design
Cylinder
Design
Fork Sensors

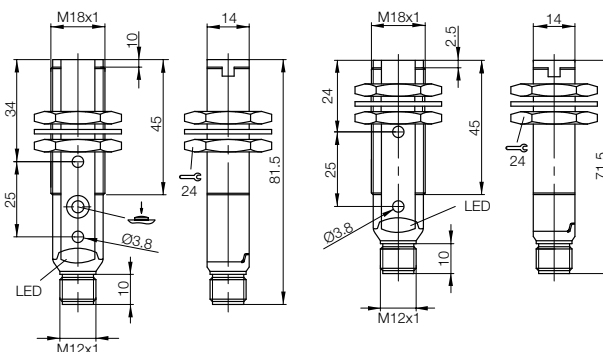


Through-beam sensor 0...50 m BOS01HM BOS 18M-X-IS23-S4	Through-beam sensor 0...50 m BOS01HP BOS 18M-PS-IE23-S4		
10...30 V DC	10...30 V DC		
Yes/Yes	100 mA		
Fixed	Yes/Yes		
LED, infrared	Fixed		
	LED, infrared		
	Yellow LED		
	1.25 ms		
	400 Hz		
IP 67	IP 67		
-5...+55 °C	-5...+55 °C		
5 klx	5 klx	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





Other variants on our website or on request.



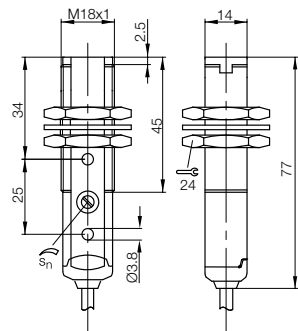
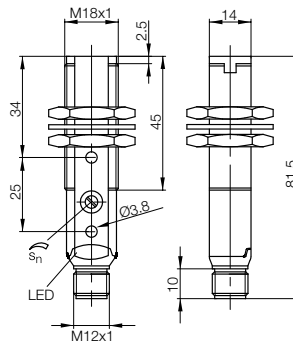
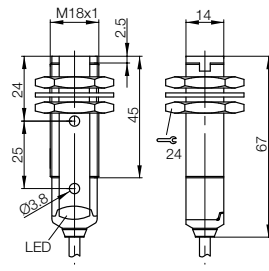
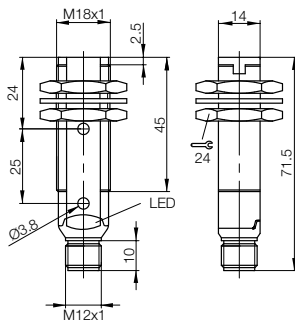
Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

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

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



	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, 4×0.14 mm ³	M12 connector, 4-pin	2 m PVC cable, 4×0.14 mm ³



Photoelectric Global Sensors

Cylinder design, BOS 18KF

Range 700 mm

M18
Global

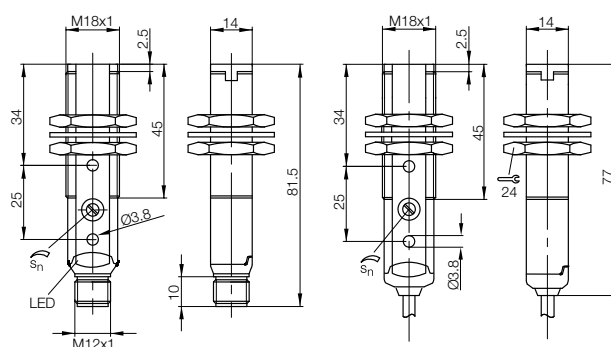
Preferred variants
available immediately



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.**

Photoelectric Global Sensors

Cylinder design, BOS 18KF

Range 1.7 m, 4.5 m, 5 m

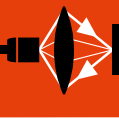
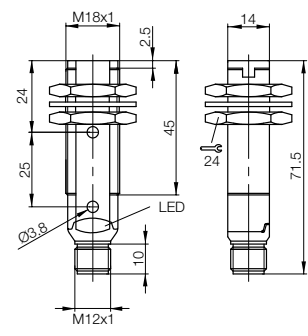
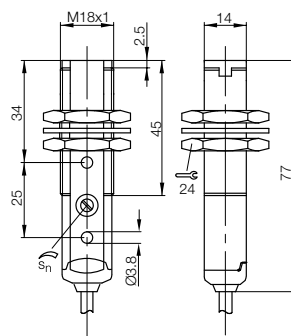
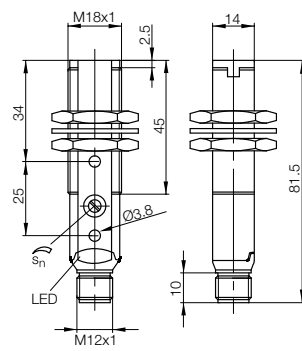
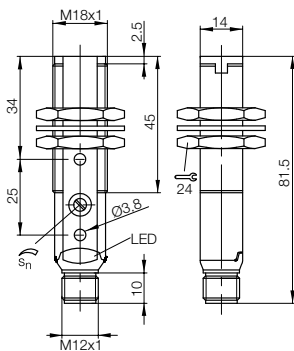


Photo-
electric
Global
Sensors
Block
Design
Cylinder
Design
Fork Sensors



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



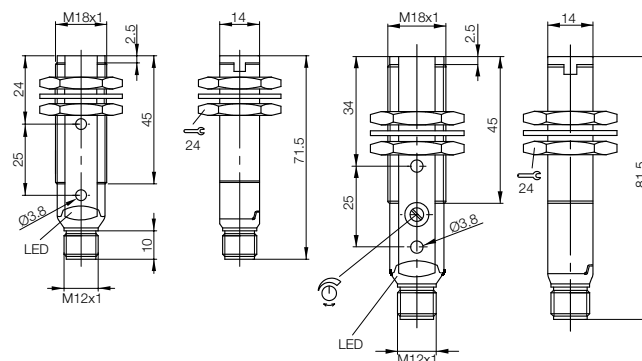
Emitter



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

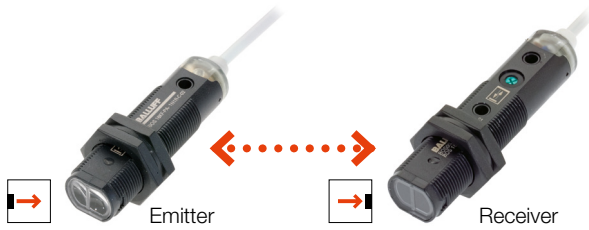
Size/design	Length/cable material	Order code
M12, 4-pin/straight	2 m/PVC	BCC0367
M12, 4-pin/angled	2 m/PVC	BCC036N
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036P

Recommended accessories

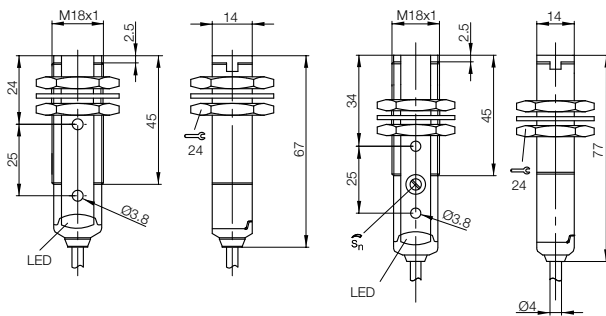
Description	Order code
Mounting bracket	BAM00EY
Mounting bracket	BAM00RY
Clamping holder	BAM00RW

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...20 m BOS00EN BLS 18KF-XX-1P-L-02	Through-beam sensor 0...20 m BOS00CJ BLE 18KF-PA-1PP-C-02		
		BOS00CC BLE 18KF-NA-1PP-C-02		
	10...30 V DC	10...30 V DC		
	≤ 35 mA	100 mA		
	Yes/Yes	≤ 30 mA		
		Yes/Yes		
	Test input	Potentiometer, 270°		
	LED, infrared			
		250 Hz		
	IP 67	IP 67		
	-25...+55 °C	-25...+55 °C		
	EN 60947-5-2	EN 60947-5-2		
	PBT	PBT		
	PMMA	PMMA		
	2 m PVC cable, 4x0.14 mm²	2 m PVC cable, 4x0.14 mm²		



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

M18
Laser
Global

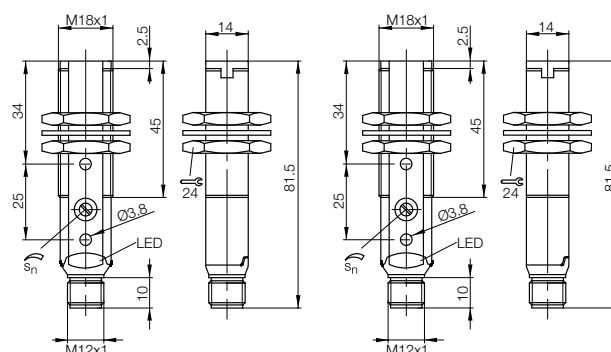
Preferred variants
available immediately



Type	Diffuse sensor 0...350 mm		Retroreflective sensor 0.1...16 m	
Detection range				
Emitter	Order code			
	Part number			
Receiver	Order code			
	Part number			
PNP NC/NO	Order code			
	Part number			
PNP NC/NO	BOS00JP			
	BOS 18KF-PA-1LOC-S4-C			
Polarizing filter	Order code		BOS00JT	
	Part number		BOS 18KF-PA-1LQP-S4-C	
NPN NC/NO	Order code			
	Part number			
NPN NC/NO	BOS00HU			
	BOS 18KF-NA-1LOC-S4-C			
Polarizing filter	Order code		BOS00HY	
	Part number		BOS 18KF-NA-1LQP-S4-C	
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		PBT	
	Optical surface		PMMA	
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

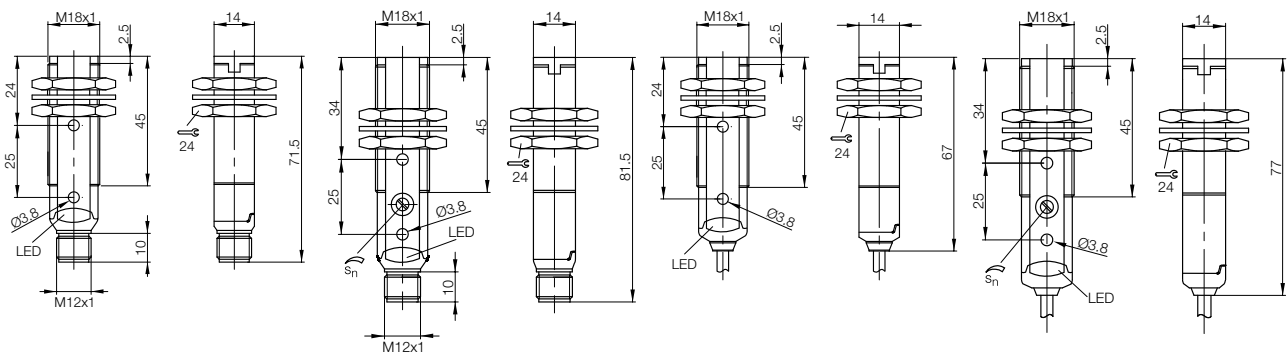
Description	Order code
Mounting bracket	BAM00EY
Mounting bracket	BAM00RY
Clamping holders	BAM00RW

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
		100 mA		100 mA
	Yes/Yes	Yes/Yes	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

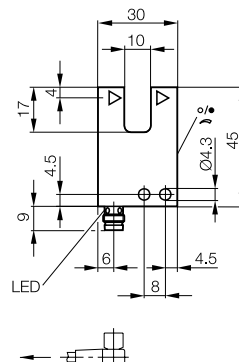
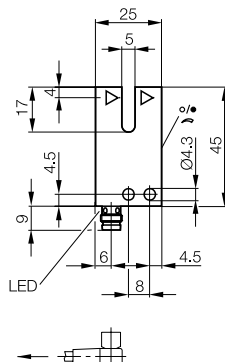


Preferred variants
available immediately



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

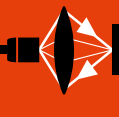
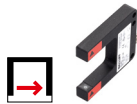
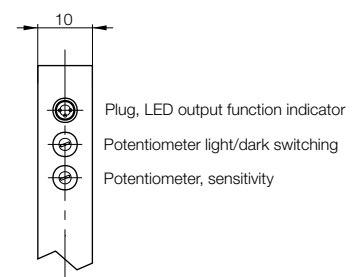
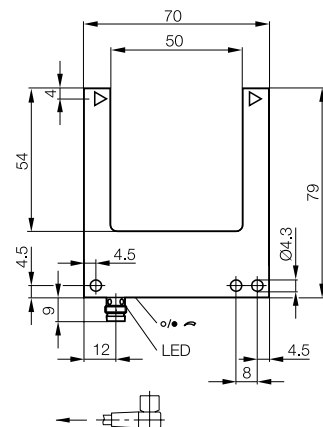
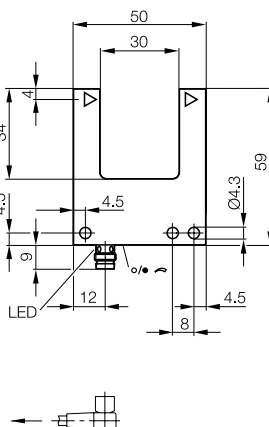
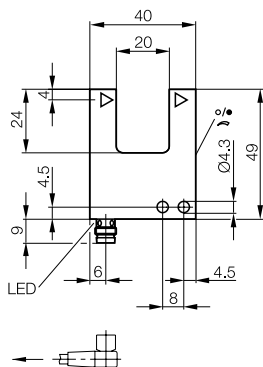


Photo-
electric
Global
Sensors
Block
Design
Cylinder
Design
Fork Sensors



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



34 | **BALLUFF**

Photoelectric Global Sensors

Fork sensors BGL

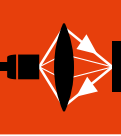
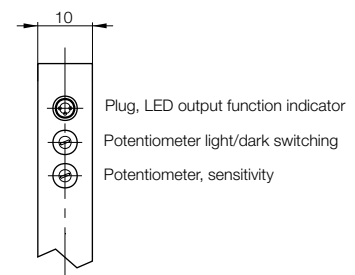
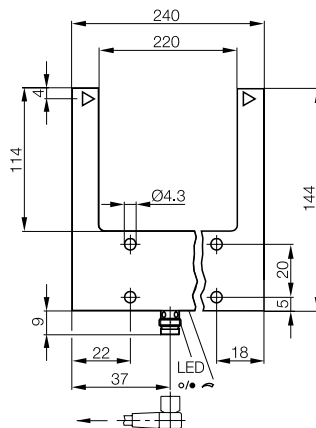
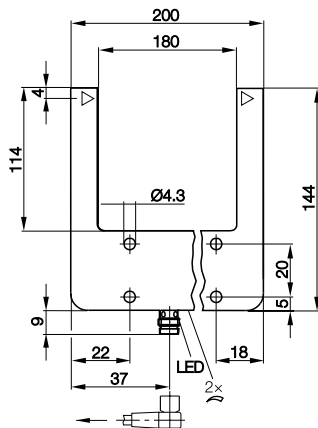
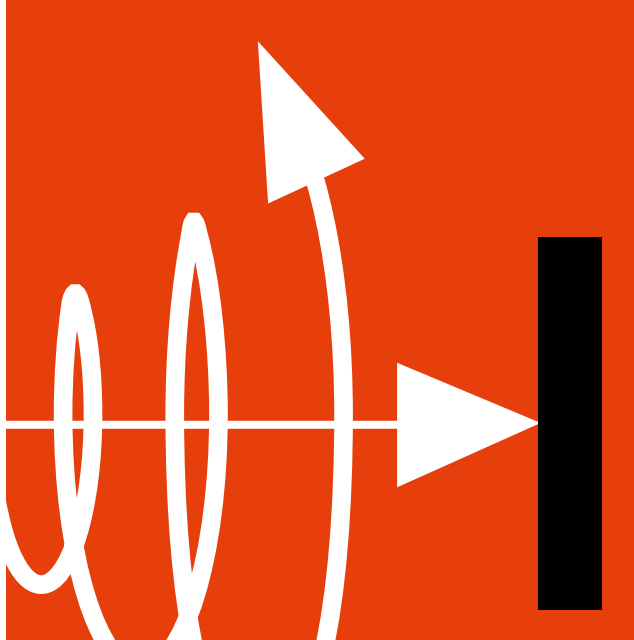


Photo-
electric
Global
Sensors
Block
Design
Cylinder
Design
Fork Sensors



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	





Inductive Global Sensors

Inductive Global sensors – wide variety of models provide flexibility

Inductive Global sensors provide sophisticated technology at the best price. The wide range of over 400 models includes cylindrical sensors in M8, M12, M18 and M30, and DC 3-wire and DC 2-wire versions.

Features

- **Wide variety of versions: DC 2-wire and DC 3-wire as normally open or normally closed version**
- **Shielded and unshielded versions**
- **Plug or cable connection**
- **Highly reliable due to protection against short-circuit, overvoltage, polarity reversal and overcurrent**
- **Robust designs with metal plug for rough environments**
- **As standard version and with increased switching distance**





Inductive Global Sensors

Contents

Cylinder design, DC 3-wire

M5x0,5 38

M8x1 40

M12x1 44

M18x1 47

M30x1 49

Block Designs

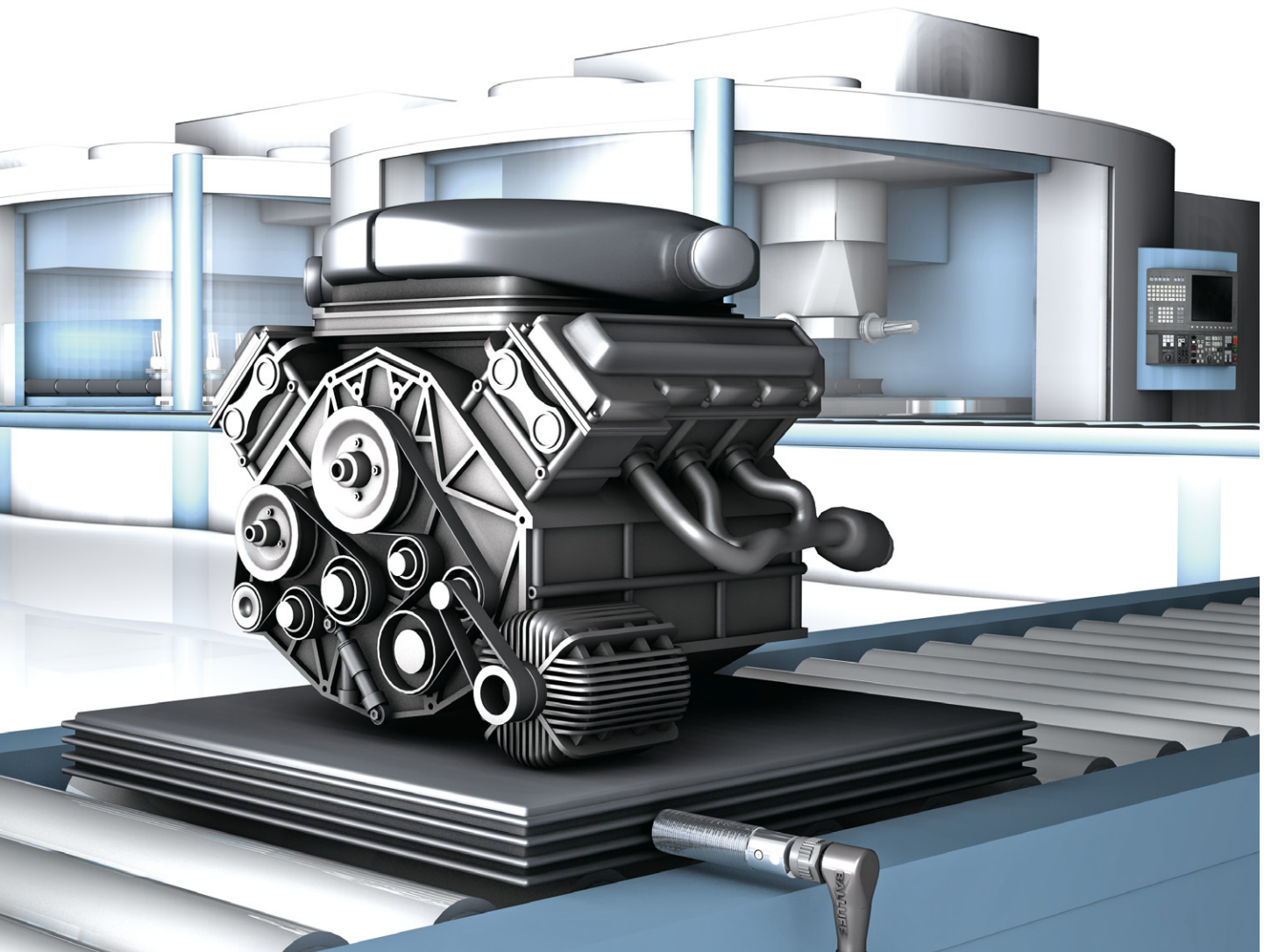
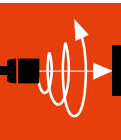
40x40 mm 50

Cylinder Designs, DC 2-wire

M8x1 52

M12x1 52

M30x1.5 53



Inductive Global Sensors
Cylinder design, DC 3-wire
M5x0,5, range 0.8 mm, 1.5 mm

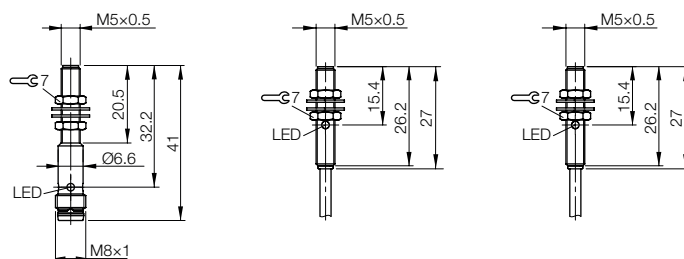
M5, Ø 6.5
Global

Preferred variants
available immediately



Model		M5x0.5	M5x0.5	M5x0.5	
Installation type		Flush	Flush	Flush	
Range s_n		0.8 mm	0.8 mm	1.5 mm	
Assured switching distance s_a		0...0.65 mm	0...0.65 mm	0...1.2 mm	
PNP, NO	Order code	BES00H2	BES00FT	BES00H3	
	Part number	BES 516-3005-E5-C-S49	BES 516-3005-E4-C-PU-02	BES 516-3005-G-E4-C-PU-02	
PNP, NC	Order code		BES00KZ	BES00L2	
	Part number		BES 516-3022-E4-C-PU-02	BES 516-3022-G-E4-C-PU-02	
NPN, NO	Order code			BES00HM	
	Part number			BES 516-3006-G-E4-C-PU-02	
NPN, NC	Order code				
	Part number				
Supply voltage U_S		10...30 V DC	10...30 V DC	10...30 V DC	
Voltage drop U_d at I_o max.		3 V	3 V	3 V	
Rated insulation voltage U_i		75 V DC	75 V DC	75 V DC	
Rated operating current I_o		100 mA	100 mA	100 mA	
Polarity reversal protected/transposition protected/ short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...+70 °C	-25...+70 °C	-25...+70 °C	
Switching frequency f max.		3 kHz	3 kHz	3 kHz	
Output function indicator		Yellow LED	Yellow LED	Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	IP 67	
Approvals		CE, cULus	CE, cULus	CE, cULus	
Material	Housing	Stainless steel	Stainless steel	Stainless steel	
	Sensing surface	PBT	PBT	PBT	
Connection		M8 connector, 3-pin	2 m PUR cable, 3x0.14 mm ²	2 m PUR cable, 3x0.14 mm ²	

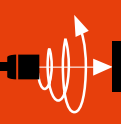
Other variants on our website or on request.



Inductive Global Sensors

Cylinder design, DC 3-wire

Ø 6.5 mm, range 4 mm



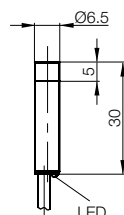
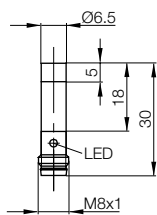
Inductive
Global
Sensors

**Cylinder
Design,
DC 3-wire**

Block
Design,
DC 3-/4-wire

Cylinder
Design,
DC 2-wire

Ø 6.5 mm	Ø 6.5 mm			
Not flush	Not flush			
4 mm	4 mm			
0...3.2 mm	0...3.2 mm			
BES0005	BES000E			
BES G06EB-PSC40F-S49G	BES G06ED-PSC40F-BP02			
BES0004	BES000A			
BES G06EB-POC40F-S49G	BES G06ED-POC40F-BP02			
BES0003	BES0008			
BES G06EB-NSC40F-S49G	BES G06ED-NSC40F-BP02			
BES0002	BES0006			
BES G06EB-NOC40F-S49G	BES G06ED-NOC40F-BP02			
10...30 V DC	10...30 V DC			
2.5 V	2.5 V			
75 V DC	250 V AC (□)			
200 mA	200 mA			
Yes/Yes/Yes	Yes/Yes/Yes			
-25...70 °C	-25...70 °C			
1.5 kHz	1.5 kHz			
Yellow LED	Yellow LED			
IP 67	IP 68 per BWN Pr. 20			
CE, cULus	CE, cULus			
Stainless steel	Stainless steel			
PA 12	PUR			
M8 connector, 3-pin	2 m PVC cable, 3x0.14 mm²			



Inductive Global Sensors

Cylinder design, DC 3-wire

M8x1, range 1.5 mm

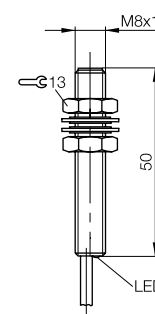
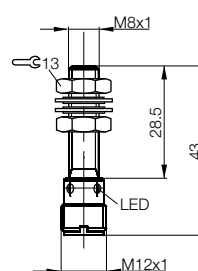
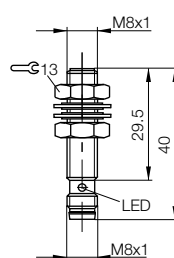
M8
Global

Preferred variants
available immediately



Series		M8x1	M8x1	M8x1	
Installation type		Flush	Flush	Flush	
Range s_n		1.5 mm	1.5 mm	1.5 mm	
Assured switching distance s_a		0...1.2 mm	0...1.2 mm	0...1.2 mm	
PNP, NO	Order code	BES00CJ	BES00CH	BES0037	
	Part number	BES M08EE-PSC15B-S49G-003	BES M08EE-PSC15B-S04G-003	BES M08MI-PSC15B-BV02	
PNP, NC	Order code	BES00CC	BES00CA	BES0030	
	Part number	BES M08EE-POC15B-S49G-003	BES M08EE-POC15B-S04G-003	BES M08MI-POC15B-BV02	
NPN, NO	Order code	BES00C7	BES00C6	BES002F	
	Part number	BES M08EE-NSC15B-S49G-003	BES M08EE-NSC15B-S04G-003	BES M08MI-NSC15B-BV02	
NPN, NC	Order code	BES00C3	BES00C2	BES03PJ	
	Part number	BES M08EE-NOC15B-S49G-003	BES M08EE-NOC15B-S04G-003	BES M08MI-NOC15B-BV02	
Supply voltage U_S		10...30 V DC	10...30 V DC	12...30 V DC	
Voltage drop U_d at I_e max.		2.5 V	2.5 V	2 V	
Rated insulation voltage U_i (protection class)		250 V AC (II)	250 V AC (II)	75 V DC	
Rated operating current I_e		200 mA	200 mA	200 mA	
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...70 °C	-25...70 °C	-25...70 °C	
Switching frequency f max.		1 kHz	1 kHz	1 kHz	
Output function indicator		Yellow LED	Yellow LED	Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	IP 67	
Approvals		CE, cULus	CE, cULus	CE, cULus	
Material	Housing	Stainless steel	Stainless steel	Brass-coated	
	Sensing surface	PBT	PBT	PA 12	
Connection		M8 connector, 3-pin	M12 connector, 4-pin	2 m PVC cable, 3x0.14 mm ²	

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
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	BAM009U
Mounting cuff	BAM00A2

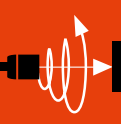
You can find additional mechanical accessories in our catalog **Accessories Line**.

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

Inductive Global Sensors

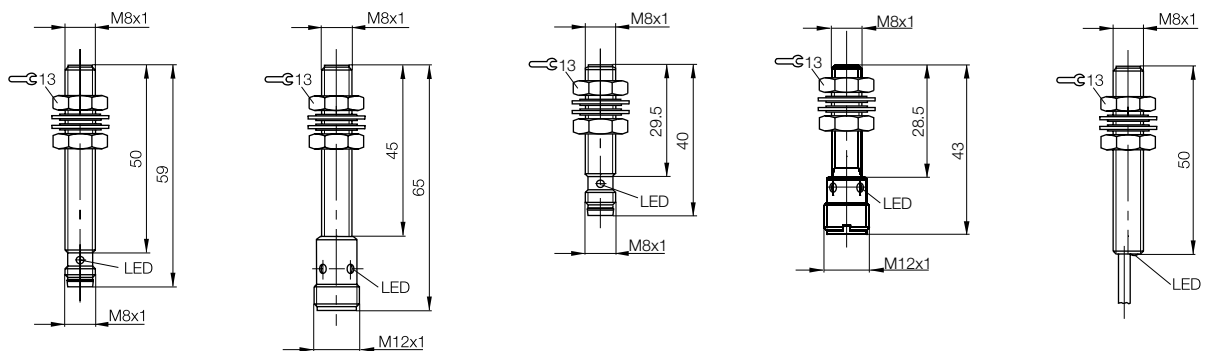
Cylinder design, DC 3-wire

M8x1, range 1.5 mm, 2 mm



Inductive
Global
Sensors
**Cylinder
Design,
DC 3-wire**
Block
Design,
DC 3-/4-wire
Cylinder
Design,
DC 2-wire

M8x1	M8x1	M8x1	M8x1	M8x1
Flush	Flush	Flush	Flush	Flush
1.5 mm	1.5 mm	2 mm	2 mm	2 mm
0...1.2 mm	0...1.2 mm	0...1.6 mm	0...1.6 mm	0...1.6 mm
BES003C	BES0027	BES00CK	BES00FC	BES003K
BES M08MI-PSC15B-S49G	BES M08MH1-PSC15B-S04G	BES M08EE-PSC20B-S49G-003	BES M08EE-PSC20B-S04G-003	BES M08MI-PSC20B-BV02
BES03P6	BES0026	BES00CF	BES00CE	BES03TH
BES M08MI-POC15B-S49G	BES M08MH1-POC15B-S04G	BES M08EE-POC20B-S49G-003	BES M08EE-POC20B-S04G-003	BES M08MI-POC20B-BV02
BES002K	BES0024	BES00C9	BES00C8	BES002P
BES M08MI-NSC15B-S49G	BES M08MH1-NSC15B-S04G	BES M08EE-NSC20B-S49G-003	BES M08EE-NSC20B-S04G-003	BES M08MI-NSC20B-BV02
BES03PK	BES0023	BES00C5	BES00C4	BES03TF
BES M08MI-NOC15B-S49G	BES M08MH1-NOC15B-S04G	BES M08EE-NOC20B-S49G-003	BES M08EE-NOC20B-S04G-003	BES M08MI-NOC20B-BV02
12...30 V DC	12...30 V DC	10...30 V DC	10...30 V DC	12...30 V DC
2 V	2 V	2.5 V	2.5 V	2.5 V
75 V DC	75 V DC	250 V AC (□)	250 V AC (□)	75 V DC
200 mA	200 mA	200 mA	200 mA	200 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
1 kHz	1 kHz	700 Hz	700 Hz	700 Hz
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 67	IP 67	IP 67	IP 67	IP 67
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Brass-coated	Brass-coated	Stainless steel	Stainless steel	Brass-coated
PA 12	PA 12	PBT	PBT	PA 12
M8 connector, 3-pin	M12 connector, 4-pin	M8 connector, 3-pin	M12 connector, 4-pin	2 m PVC cable, 3x0.14 mm²



Inductive Global Sensors
Cylinder design, DC 3-wire
M8x1, range 2 mm, 4 mm

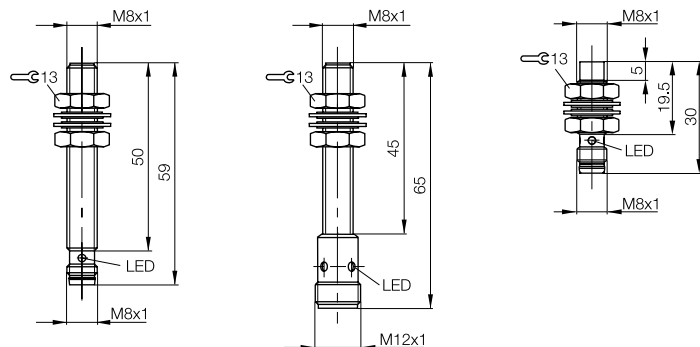
M8
Global

Preferred variants
available immediately



Series		M8x1	M8x1	M8x1	
Installation type		Flush	Flush	Non-flush	
Range s_n		2 mm	2 mm	4 mm	
Assured switching distance s_a		0...1.6 mm	0...1.6 mm	0...3.2 mm	
PNP, NO	Order code	BES003P	BES0028	BES000M	
	Part number	BES M08MI-PSC20B-S49G	BES M08MH1-PSC20B-S04G	BES M08EB-PSC40F-S49G	
PNP, NC	Order code	BES0033	BES03T5	BES000L	
	Part number	BES M08MI-POC20B-S49G	BES M08MH1-POC20B-S04G	BES M08EB-POC40F-S49G	
NPN, NO	Order code	BES002U	BES0025	BES000K	
	Part number	BES M08MI-NSC20B-S49G	BES M08MH1-NSC20B-S04G	BES M08EB-NSC40F-S49G	
NPN, NC	Order code	BES03TJ	BES03T6	BES000J	
	Part number	BES M08MI-NOC20B-S49G	BES M08MH1-NOC20B-S04G	BES M08EB-NOC40F-S49G	
Supply voltage U_S		12...30 V DC	12...30 V DC	10...30 V DC	
Voltage drop U_d at I_e max.		2.5 V	2.5 V	2.5 V	
Rated insulation voltage U_i (protection class)		75 V DC	75 V DC	250 V AC (II)	
Rated operating current I_e		200 mA	200 mA	200 mA	
Polarity reversal protected/transposition protected/ short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...70 °C	-25...70 °C	-25...70 °C	
Switching frequency f max.		700 Hz	700 Hz	1.5 kHz	
Output function indicator		Yellow LED	Yellow LED	Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	IP 68 per BWN Pr. 20	
Approvals		CE, cULus	CE, cULus	CE, cULus	
Material	Housing	Brass-coated	Brass-coated	Stainless steel	
	Sensing surface	PA 12	PA 12	PBT	
Connection		M8 connector, 3-pin	M12 connector, 4-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
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	BAM009U
Mounting cuff	BAM00A2

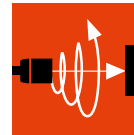
You can find additional mechanical accessories in our catalog **Accessories Line**.

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

Inductive Global Sensors

Cylinder design, DC 3-wire

M8x1, range 4 mm



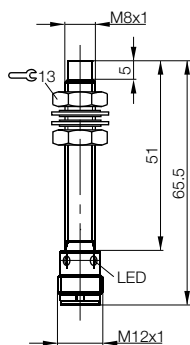
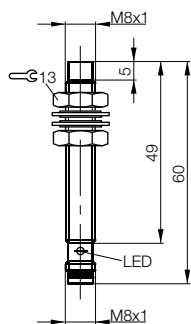
Inductive
Global
Sensors

**Cylinder
Design,
DC 3-wire**

Block
Design,
DC 3-/4-wire

Cylinder
Design,
DC 2-wire

M8x1	M8x1			
Non-flush	Non-flush			
4 mm	4 mm			
0...3.2 mm	0...3.2 mm			
BES001J	BES001H			
BES M08EH-PSC40F-S49G	BES M08EH-PSC40F-S04G			
BES001F	BES001E			
BES M08EH-POC40F-S49G	BES M08EH-POC40F-S04G			
BES001C	BES001A			
BES M08EH-NSC40F-S49G	BES M08EH-NSC40F-S04G			
BES0019	BES0018			
BES M08EH-NOC40F-S49G	BES M08EH-NOC40F-S04G			
10...30 V DC	10...30 V DC			
2.5 V	2.5 V			
250 V AC (□)	250 V AC (□)			
200 mA	200 mA			
Yes/Yes/Yes	Yes/Yes/Yes			
-25...70 °C	-25...70 °C			
1.5 kHz	1.5 kHz			
Yellow LED	Yellow LED			
IP 68 per BWN Pr. 20	IP 67			
CE, cULus	CE, cULus			
Stainless steel	Stainless steel			
PBT	PBT			
M8 connector, 3-pin	M12 connector, 4-pin			



Inductive Global Sensors
Cylinder design, DC 3-wire
M12×1, range 2 mm

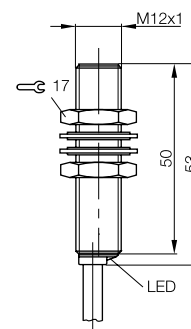
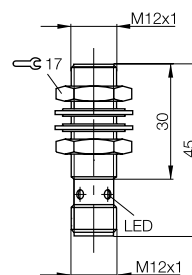
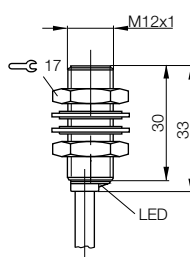
M12
Global

Preferred variants
available immediately



Series		M12×1	M12×1	M12×1	
Installation type		Flush	Flush	Flush	
Range s_n		2 mm	2 mm	2 mm	
Assured switching distance s_a		0...1.6 mm	0...1.6 mm	0...1.6 mm	
PNP, NO	Order code	BES04CU	BES00EE	BES005U	
	Part number	BES M12MD-PSC20B-BV02-003	BES M12ME-PSC20B-S04G-003	BES M12MI-PSC20B-BV02	
PNP, NC	Order code		BES00EA	BES00FP	
	Part number		BES M12ME-POC20B-S04G-003	BES M12MI-POC20B-BV02	
NPN, NO	Order code	BES04CW	BES00E8	BES00FL	
	Part number	BES M12MD-NSC20B-BV02-003	BES M12ME-NSC20B-S04G-003	BES M12MI-NSC20B-BV02	
NPN, NC	Order code		BES00E6	BES03PR	
	Part number		BES M12ME-NOC20B-S04G-003	BES M12MI-NOC20B-BV02	
Supply voltage U_S		10...30 V DC	10...30 V DC	12...30 V DC	
Voltage drop U_d at I_e max.		2 V	2 V	2.5 V	
Rated insulation voltage U_i (protection class)		250 V AC (II)	250 V AC (II)	250 V AC (II)	
Rated operating current I_e		200 mA	200 mA	200 mA	
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...70 °C	-25...70 °C	-25...70 °C	
Switching frequency f max.		1.2 kHz	1.2 kHz	1.2 kHz	
Output function indicator		Yellow LED	Yellow LED	Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	IP 68 per BWN Pr. 20	
Approvals		CE, cULus	CE, cULus	CE, cULus	
Material	Housing	Brass-coated	Brass-coated	Brass-coated	
	Sensing surface	PBT	PBT	PA 12	
Connection		2 m PUR cable, 3x0.34 mm ²	M12 connector, 4-pin	2 m PVC cable, 3x0.34 mm ²	

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

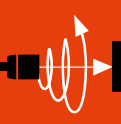
You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

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

Inductive Global Sensors

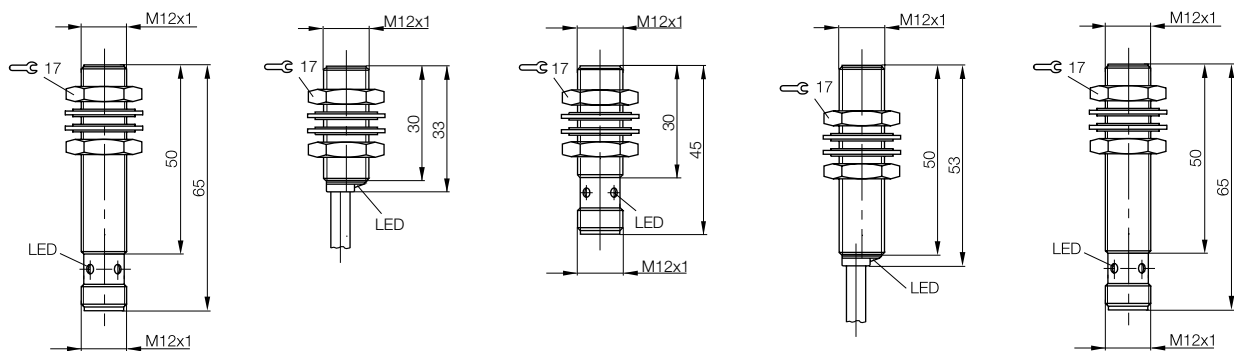
Cylinder design, DC 3-wire

M12×1, range 2 mm, 4 mm



Inductive
Global
Sensors
**Cylinder
Design,
DC 3-wire**
Block
Design,
DC 3-/4-wire
Cylinder
Design,
DC 2-wire

M12×1	M12×1	M12×1	M12×1	M12×1
Flush	Flush	Flush	Flush	Flush
2 mm	4 mm	4 mm	4 mm	4 mm
0...1.6 mm	0...3.2 mm	0...3.2 mm	0...3.2 mm	0...3.2 mm
BES0060	BES00E5	BES00EF	BES0064	BES0068
BES M12MI-PSC20B-S04G	BES M12MD-PSC40B-BP02-003	BES M12ME-PSC40B-S04G-003	BES M12MI-PSC40B-BV02	BES M12MI-PSC40B-S04G
BES005F	BES00E3	BES00EC	BES005L	BES005N
BES M12MI-POC20B-S04G	BES M12MD-POC40B-BP02-003	BES M12ME-POC40B-S04G-003	BES M12MI-POC40B-BV02	BES M12MI-POC40B-S04G
BES0054	BES00E1	BES00E9	BES00FM	BES0059
BES M12MI-NSC20B-S04G	BES M12MD-NSC40B-BP02-003	BES M12ME-NSC40B-S04G-003	BES M12MI-NSC40B-BV02	BES M12MI-NSC40B-S04G
BES004Y	BES00CZ	BES00E7	BES03PT	BES004Z
BES M12MI-NOC20B-S04G	BES M12MD-NOC40B-BP02-003	BES M12ME-NOC40B-S04G-003	BES M12MI-NOC40B-BV02	BES M12MI-NOC40B-S04G
12...30 V DC	10...30 V DC	10...30 V DC	12...30 V DC	12...30 V DC
2.5 V	2.5 V	2.5 V	2.5 V	2.5 V
250 V AC (□)	250 V AC (□)	250 V AC (□)	250 V AC (□)	250 V AC (□)
200 mA	200 mA	200 mA	200 mA	200 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
1.2 kHz	300 Hz	300 Hz	500 Hz	500 Hz
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 68 per BWN Pr. 20	IP 67	IP 67	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Brass-coated	Brass-coated	Brass-coated	Brass-coated	Brass-coated
PA 12	LCP	LCP	PA 12	PA 12
M12 connector, 4-pin	2 m PUR cable, 3×0.34 mm²	M12 connector, 4-pin	2 m PVC cable, 3×0.34 mm²	M12 connector, 4-pin



Inductive Global Sensors
Cylinder design, DC 3-wire
M12×1, range 8 mm

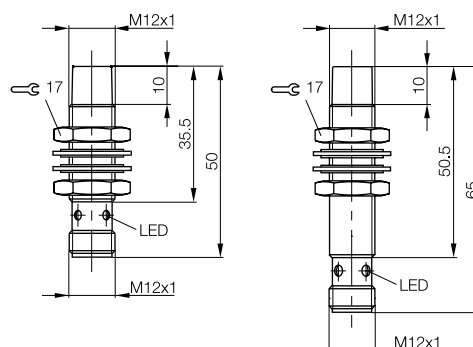
M12, M18
Global

Preferred variants
available immediately



Series		M12×1	M12×1		
Installation type		Non-flush	Non-flush		
Range s_n		8 mm	8 mm		
Assured switching distance s_a		0...6.4 mm	0...6.4 mm		
PNP, NO	Order code	BES01PY	BES004N		
	Part number	BES M12MD-PSC80F-S04G	BES M12MG-PSC80F-S04G		
PNP, NC	Order code	BES01PU	BES004K		
	Part number	BES M12MD-POC80F-S04G	BES M12MG-POC80F-S04G		
NPN, NO	Order code	BES01PT	BES004F		
	Part number	BES M12MD-NSC80F-S04G	BES M12MG-NSC80F-S04G		
NPN, NC	Order code	BES01PR	BES004A		
	Part number	BES M12MD-NOC80F-S04G	BES M12MG-NOC80F-S04G		
Supply voltage U_S		10...30 V DC	10...30 V DC		
Voltage drop U_d at I_e max.		2.5 V	2.5 V		
Rated insulation voltage U_i (protection class)		250 V AC (II)	250 V AC (II)		
Rated operating current I_e		200 mA	200 mA		
Polarity reversal protected/transposition protected/ short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes		
Ambient temperature T_a		-25...70 °C	-25...70 °C		
Switching frequency f max.		800 Hz	800 Hz		
Output function indicator		Yellow LED	Yellow LED		
Degree of protection as per IEC 60529		IP 68 per BWN Pr. 20	IP 67		
Approvals		CE, cULus	CE, cULus		
Material	Housing	Brass-coated	Brass-coated		
	Sensing surface	PBT	PBT		
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

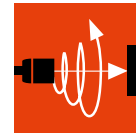
Description	Order code
Mounting cuff	BAM00C4
Mounting cuff	BAM00F2
Mounting bracket	BAM00C0
Mounting bracket	BAM00EY

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

Inductive Global Sensors

Cylinder design, DC 3-wire

M18x1, range 5 mm



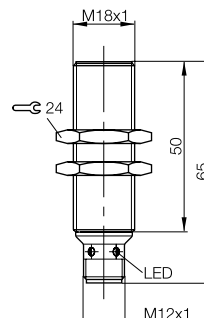
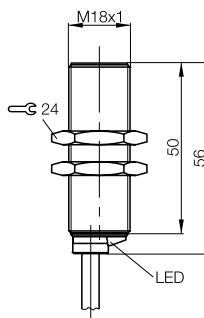
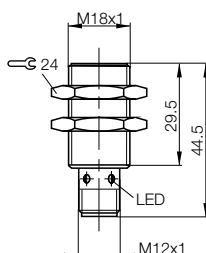
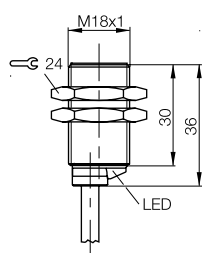
Inductive
Global
Sensors

Cylinder
Design,
DC 3-wire

Block
Design,
DC 3-/4-wire

Cylinder
Design,
DC 2-wire

M18x1	M18x1	M18x1	M18x1	
Flush	Flush	Flush	Flush	
5 mm	5 mm	5 mm	5 mm	
0...4 mm	0...4 mm	0...4 mm	0...4 mm	
BES00EN	BES00EY	BES0082	BES0086	
BES M18MD-PSC50B-BP02-003	BES M18ME-PSC50B-S04G-003	BES M18MI-PSC50B-BV02	BES M18MI-PSC50B-S04G	
BES00EL	BES00EU	BES007R	BES043J	
BES M18MD-POC50B-BP02-003	BES M18ME-POC50B-S04G-003	BES M18MI-POC50B-BV02	BES M18MI-POC50B-S04G	
BES00EJ	BES00ER	BES007A	BES044F	
BES M18MD-NSC50B-BP02-003	BES M18ME-NSC50B-S04G-003	BES M18MI-NSC50B-BV02	BES M18MI-NSC50B-S04G	
BES03T8	BES03T7	BES03RR		
BES M18MD-NOC50B-BP02-003	BES M18ME-NOC50B-S04G-003	BES M18MI-NOC50B-BV02		
10...30 V DC	10...30 V DC	12...30 V DC	12...30 V DC	
2 V	2 V	2.5 V	2.5 V	
75 V DC	75 V DC	250 V AC (□)	250 V AC (□)	
200 mA	200 mA	200 mA	200 mA	
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	
700 Hz	700 Hz	700 Hz	700 Hz	
Yellow LED	Yellow LED	Yellow LED	Yellow LED	
IP 67	IP 67	IP 68 per BWN Pr. 20	IP 68 per BWN Pr. 20	
CE, cULus	CE, cULus	CE, cULus	CE, cULus	
Brass-coated	Brass-coated	Brass-coated	Brass-coated	
PA 12	PA 12	PA 12	PA 12	
2 m PUR cable, 3 x 0.34 mm²	M12 connector, 4-pin	2 m PVC cable, 3x0.34 mm²	M12 connector, 4-pin	



Inductive Global Sensors
Cylinder design, DC 3-wire
M18x1, range 8 mm

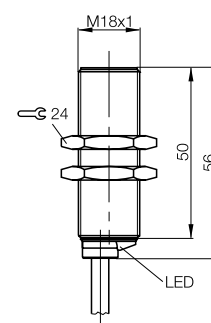
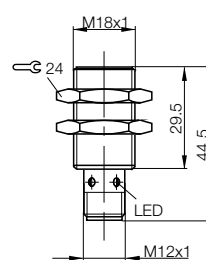
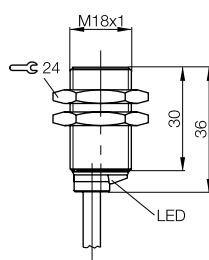
M18, M30
Global

Preferred variants
available immediately



Series		M18x1	M18x1	M18x1	
Installation type		Flush	Flush	Flush	
Range s_n		8 mm	8 mm	8 mm	
Assured switching distance s_a		0...6.4 mm	0...6.4 mm	0...6.4 mm	
PNP, NO	Order code	BES00EP	BES00EZ	BES008E	
	Part number	BES M18MD-PSC80B-BP02-003	BES M18ME-PSC80B-S04G-003	BES M18MI-PSC80B-BV02	
PNP, NC	Order code	BES00EM	BES00EW	BES03PY	
	Part number	BES M18MD-POC80B-BP02-003	BES M18ME-POC80B-S04G-003	BES M18MI-POC80B-BV02	
NPN, NO	Order code	BES00EK	BES00ET		
	Part number	BES M18MD-NSC80B-BP02-003	BES M18ME-NSC80B-S04G-003		
NPN, NC	Order code	BES00EH	BES03RN		
	Part number	BES M18MD-NOC80B-BP02-003	BES M18ME-NOC80B-S04G-003		
Supply voltage U_S		10...30 V DC	10...30 V DC	12...30 V DC	
Voltage drop U_d at I_e max.		3.5 V	3.5 V	2.5 V	
Rated insulation voltage U_i (protection class)		75 V DC	75 V DC	250 V AC (II)	
Rated operating current I_e		130 mA	130 mA	200 mA	
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...70 °C	-25...70 °C	-25...70 °C	
Switching frequency f max.		150 Hz	150 Hz	150 Hz	
Output function indicator		Yellow LED	Yellow LED	Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	IP 68 per BWN Pr. 20	
Approvals		CE, cULus	CE, cULus	CE, cULus	
Material	Housing	Brass-coated	Brass-coated	Brass-coated	
	Sensing surface	PBT	PBT	PA 12	
Connection		2 m PUR cable, 3x0.34 mm ²	M12 connector, 4-pin	2 m PVC cable, 3x0.34 mm ²	

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 cuff	BAM00F2
Mounting bracket	BAM00EY

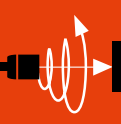
You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

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

Inductive Global Sensors

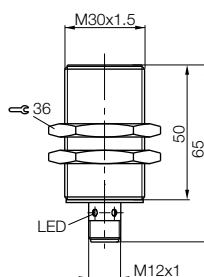
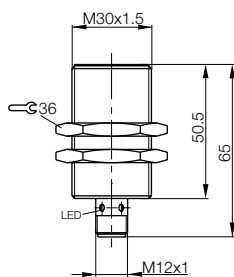
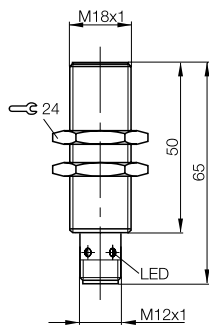
Cylinder design, DC 3-wire

M18×1, M30×1, range 8 mm, 10 mm, 15 mm



Inductive
Global
Sensors
**Cylinder
Design,
DC 3-wire**
Block
Design,
DC 3-/4-wire
Cylinder
Design,
DC 2-wire

M18×1	M30×1.5	M30×1.5		
Flush	Flush	Flush		
8 mm	10 mm	15 mm		
0...6.4 mm	0...8.1 mm	0...12.2 mm		
BES008L	BES00A3	BES00AF		
BES M18MI-PSC80B-S04G	BES M30MI-PSC10B-S04G	BES M30MI-PSC15B-S04G		
BES03RP	BES043H	BES03RK		
BES M18MI-POC80B-S04G	BES M30MI-POC10B-S04G	BES M30MI-POC15B-S04G		
BES007L				
BES M18MI-NSC80B-S04G				
BES0077				
BES M18MI-NOC80B-S04G				
10...30 V DC	12...30 V DC	10...30 V DC		
2.5 V	2.5 V	2.5 V		
250 V AC (□)	75 V DC	250 V AC (□)		
200 mA	200 mA	200 mA		
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes		
-25...70 °C	-25...70 °C	-25...70 °C		
1 kHz	400 Hz	100 Hz		
Yellow LED	Yellow LED	Yellow LED		
IP 67	IP 67	IP 67		
CE, cULus	CE, cULus	CE, cULus		
Brass-coated	Brass-coated	Brass-coated		
PBT	PA 12	PA 12		
M12 connector, 4-pin	M12 connector, 4-pin	M12 connector, 4-pin		



Inductive Global Sensors
Block design, DC 3-/4-wire
40×40 mm, range 20 mm, 25 mm

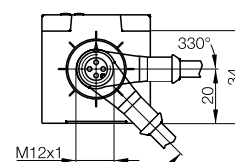
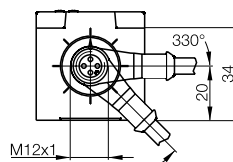
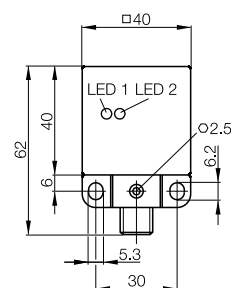
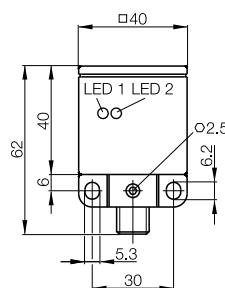
40×40 mm
Global

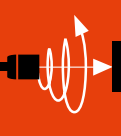
Preferred variants
available immediately



Model		40×40 mm Unicomact	40×40 mm
Installation type		Flush	Not flush
Rated switching distance s_n		20 mm	25 mm
Assured switching distance s_a		0...16 mm	0...20 mm
PNP, NO	Order code	BES021W	
	Part number	BES Q40KFU-PSC20B-S04G	
PNP, complementary	Order code	BES0217	
	Part number	BES Q40KFU-PAC20B-S04G	
NPN, complementary	Order code		BES022J
	Part number		BES Q40KFU-NAC25F-S04G
Supply voltage U_s		10...30 V DC	10...30 V DC
Voltage drop U_d at I_e max.		2.5 V	2.5 V
Rated insulation voltage U_i (protection class)		250 V AC (□)	250 V AC (□)
Rated operating current I_e		200 mA	200 mA
Polarity reversal protected/t		Yes/Yes/Yes	Yes/Yes/Yes
ransposition protected/short-circuit protected			
Ambient temperature T_a		-25...+70 °C	-25...+70 °C
Switching frequency f max.		50 Hz	50 Hz
Output function indicator		Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP 67	IP 67
Approvals		CE, cULus	CE, cULus
Material	Housing	PA	PBT
	Sensing surface	PA	PBT
Connection		M12 connector, 4-pin	M12 connector, 4-pin

Other variants on our website or on request.





Inductive
Global
Sensors
Cylinder
Design,
DC 3-wire
**Block
Design,
DC 3-/4-wire**
Cylinder
Design,
DC 2-wire



Inductive Global Sensors
Cylinder design, DC 2-wire
M8x1, M12x1, range 2 mm, 3 mm

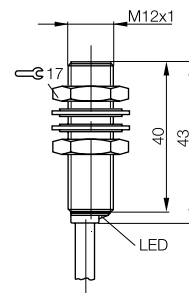
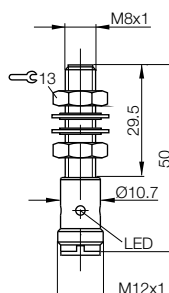
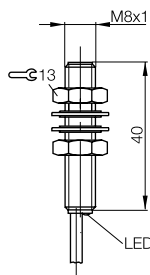
M8, M12,
M18, M30
Global

Preferred variants
available immediately



Series		M8x1	M8x1	M12x1	
Installation type		Flush	Flush	Flush	
Range s_n		2 mm	2 mm	3 mm	
Assured switching distance s_a		0...1.6 mm	0...1.6 mm	0...2.4 mm	
Polarized, NO	Order code	BES001L	BES0022	BES0045	
	Part number	BES M08MG-GSC20B-BV02	BES M08ME1-GSC20B-S04G	BES M12MG-GSC30B-BV02	
Polarized, NC	Order code	BES024R	BES024N	BES024L	
	Part number	BES M08MG-GOC20B-BV02	BES M08ME1-GOC20B-S04G	BES M12MG-GOC30B-BV02	
Non-polarized, NO	Order code	BES001T	BES001Y	BES004T	
	Part number	BES M08MG-USC20B-BV02	BES M08ME1-USC20B-S04G	BES M12MG-USC30B-BV02	
Non-polarized, NC	Order code	BES024T	BES024P	BES024M	
	Part number	BES M08MG-UOC20B-BV02	BES M08ME1-UOC20B-S04G	BES M12MG-UOC30B-BV02	
Supply voltage U_S		10...36 V DC	10...36 V DC	10...36 V DC	
Voltage drop U_d at I_e max.		5 V	5 V	≤ 5 V	
Rated insulation voltage U_i		75 V DC	75 V DC	75 V DC	
Rated operating current I_e		100 mA	100 mA	100 mA	
Minimum operational current I_m		5 mA	5 mA	5 mA	
Residual current I_r max.		600 μ A	600 μ A	600 μ A	
Permissible load capacitance max.		1 μ F	1 μ F	1 μ F	
Polarity reversal protected/transposition protected/ short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...+70 °C	-25...+70 °C	-25...+70 °C	
Switching frequency f max.		1.5 kHz	1.5 kHz	1.3 kHz	
Output function indicator		Yellow LED	Yellow LED	Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	IP 67	
Approvals		CE, cULus	CE, cULus	CE, cULus	
Material	Housing	Brass-coated	Brass-coated	Brass-coated	
	Sensing surface	PBT	PBT	PA 12	
Connection		2 m PVC cable, 2x0.14 mm ²	M12 connector, 4-pin	2 m PVC cable, 2x0.34 mm ²	

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 cuff	BAM00F2
Mounting cuff	BAM0219
Mounting bracket	BAM00EY

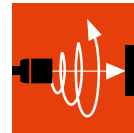
You can find additional electrical accessories in our catalog
Industrial Networking and Connectivity.

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

Inductive Global Sensors

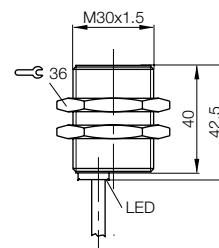
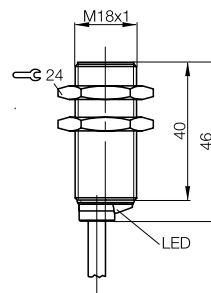
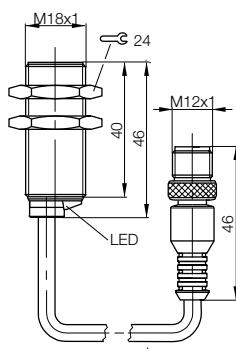
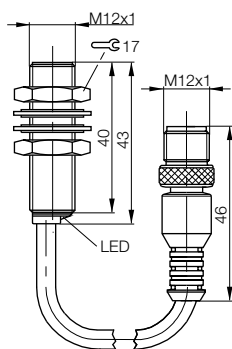
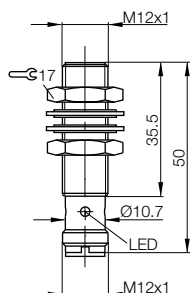
Cylinder design, DC 2-wire

M12x1, M18x1, M30x1.5, range 3 mm, 7 mm, 15 mm



Inductive
Global
Sensors
Cylinder
Design,
DC 3-wire
Block
Design,
DC 3-/4-wire
Cylinder
Design,
DC 2-wire

M12x1	M12x1	M18x1	M18x1	M30x1.5
Flush	Flush	Flush	Flush	Flush
3 mm	3 mm	7 mm	7 mm	15 mm
0...2.4 mm	0...2.4 mm	0...5.6 mm	0...5.6 mm	0...12 mm
BES003Z	BES0042	BES006C	BES00FA	BES008R
BES M12MF-GSC30B-S04G	BES M12MG-GSC30B-BP00,3-GS04	BES M18MG-GSC70B-BP00,3-GS04	BES M18MG-GSC70B-BV02	BES M30MF-GSC15B-BV02
BES024J	BES03HK	BES039L	BES02NT	BES0279
BES M12MF-GOC30B-S04G	BES M12MG-GOC30B-BP00,3-GS04	BES M18MG-GOC70B-BP00,3-GS04	BES M18MG-GOC70B-BV02	BES M30MF-GOC15B-BV02
BES0041			BES0073	BES0091
BES M12MF-USC30B-S04G			BES M18MG-USC70B-BV02	BES M30MF-USC15B-BV02
BES024K			BES02NU	BES027A
BES M12MF-UOC30B-S04G			BES M18MG-UOC70B-BV02	BES M30MF-UOC15B-BV02
10...36 V DC	10...36 V DC	10...36 V DC	10...36 V DC	10...36 V DC
≤ 5 V	4 V	4 V	4 V	≤ 5 V
75 V DC	75 V DC	75 V DC	75 V DC	75 V DC
100 mA	100 mA	100 mA	100 mA	100 mA
5 mA	5 mA	5 mA	5 mA	5 mA
600 µA	600 µA	600 µA	600 µA	600 µA
1 µF	1 µF	1 µF	1 µF	1 µF
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C	-25...+70 °C
1.3 kHz	1.3 kHz	600 Hz	600 Hz	400 Hz
Yellow LED	Yellow LED	Yellow LED	Yellow LED	Yellow LED
IP 67	IP 67	IP 67	IP 67	IP 67
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
Brass-coated	Brass-coated	Brass-coated	Brass-coated	Brass-coated
PA 12	PA 12	PA 12	PA 12	PA 12
M12 connector, 4-pin	0.3 m PUR cable with M12 connector, 4-pin	0.3 m PUR cable with M12 connector, 4-pin	2 m PVC cable, 3x0.34 mm²	2 m PVC cable, 2x0.34 mm²





Capacitive Global Sensors

Capacitive Global sensors – above-average technology at the best price

For object and level detection, capacitive Global sensors are particularly cost-effective. They offer a wide range of performance-proven products in above-average technology with the best possible EMC protection at a low price.

The complete series includes M12, M18 and M30 variants in cable version and with M12 male. In a plastic or stainless steel housing. This guarantees maximum versatility in application.

All sensors can be easily adjusted to applications via potentiometers.

Features

- **Stainless steel or plastic housing (PBT)**
- **PNP and NPN versions with normally open or normally closed**
- **Power-on indicator (large green LED)**
- **Output function indicator (large yellow LED)**
- **High electromagnetic compatibility (EMC)**

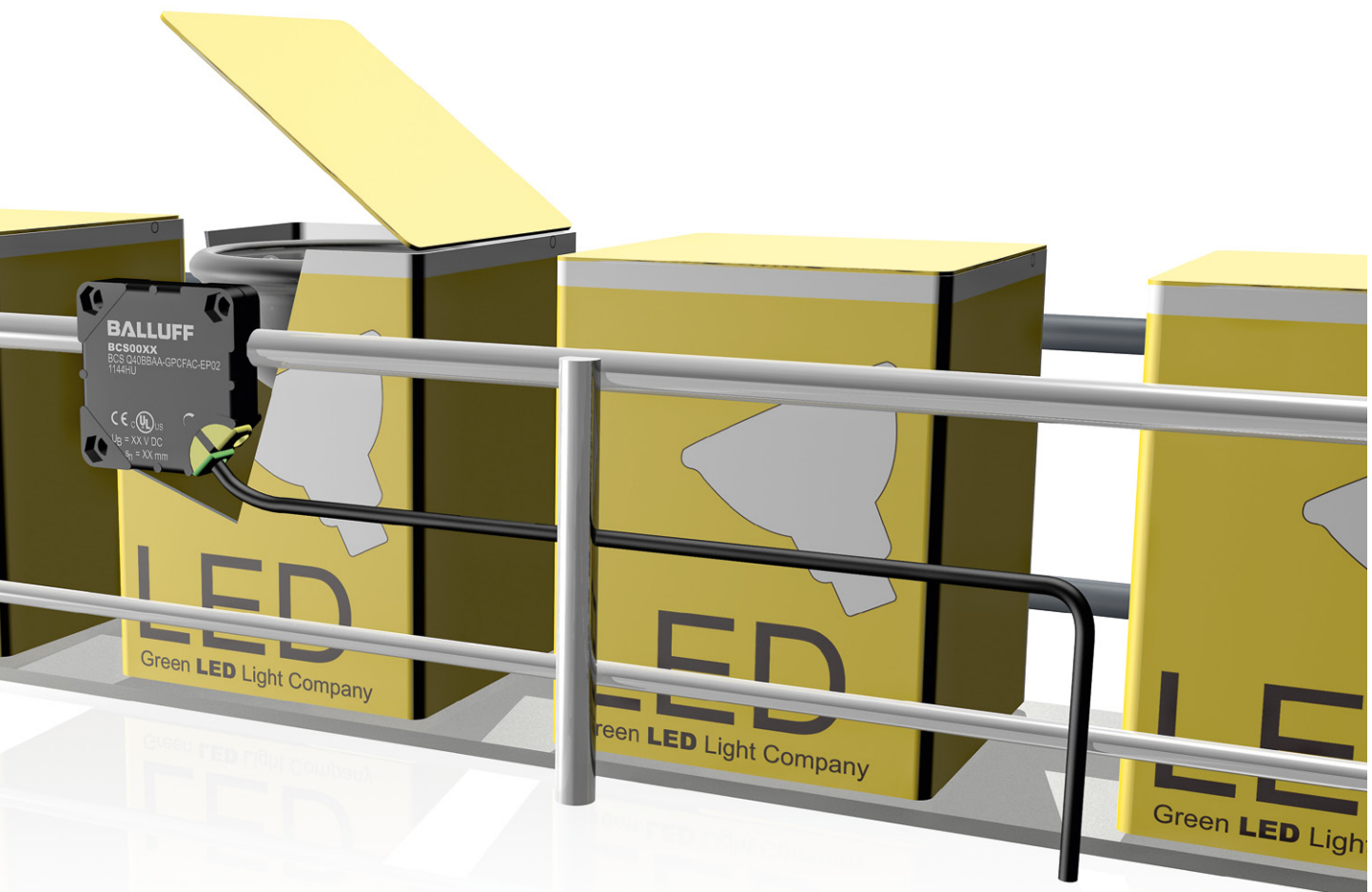
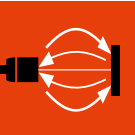




Capacitive Global Sensors

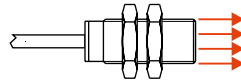
Contents

Performance Spectrum	56
Capacitive Global Sensors for Object Detection	
Cylinder Designs	
M12×1	58
M18×1	59
M30×1.5	60
Block Designs	
40×40×10 mm	62
16×34×8 mm	63
Capacitive Global Sensors for Level Detection	
Cylinder Designs	
M12×1	64
M18×1	65
M30×1.5	66



Object Detection

- Flush-mount
- Extended switching distance
- For example, detecting plastic parts



Flush-mount capacitive sensors detect objects reliably, even from a great distance. Regardless of color, structure and material.

Shielded sensors Fields of application

Solid body object detection

Paper, cardboard, glass, plastic, rubber, ceramic, wood, metal, fiber composite material, semiconductors (wafers) etc.

Level object detection through non-metallic container wall (max. 4 mm thickness)

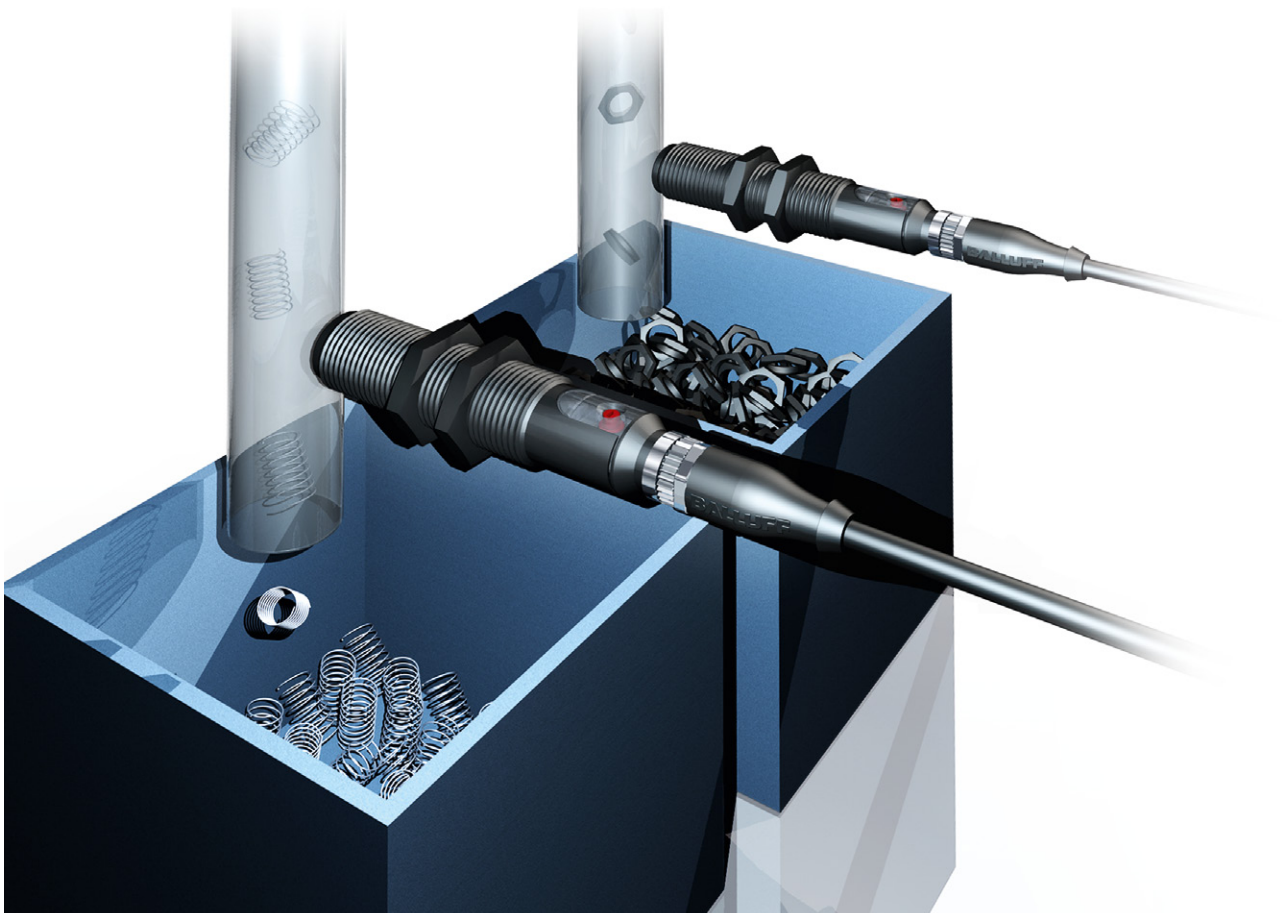
Granules, pellets, powder, sand etc.

Objects in outer packaging
(volume or presence)

Oils, grease, water, alcohol etc.

Benefit

The concentrated electrical field enables also to detect media with a low dielectric constant reliably. (electrically weak or non-conductive, non-metallic materials).



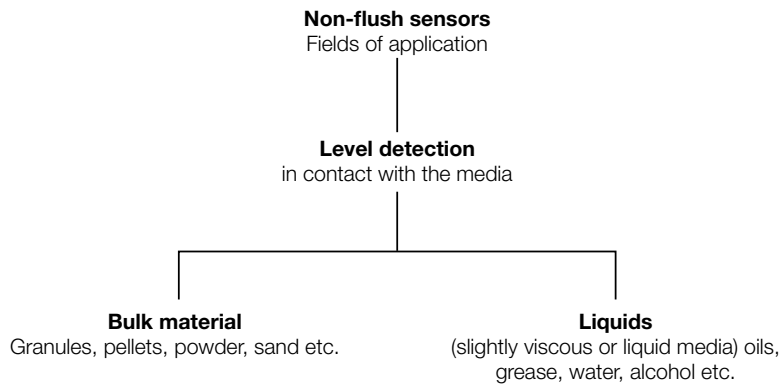
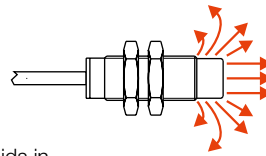
Capacitive Global Sensors

Performance spectrum

Level detection

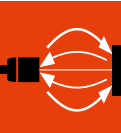
- Non-flush mount: improved adhesion compensation
- User adjustable sensitivity

Non-flush mount Global sensors are ideal for level detection of bulk materials or liquids in direct contact. Material deposits are suppressed reliably in the process.



Benefit

Their spherical electrical field effectively compensates for material adhesion on the sensing face.

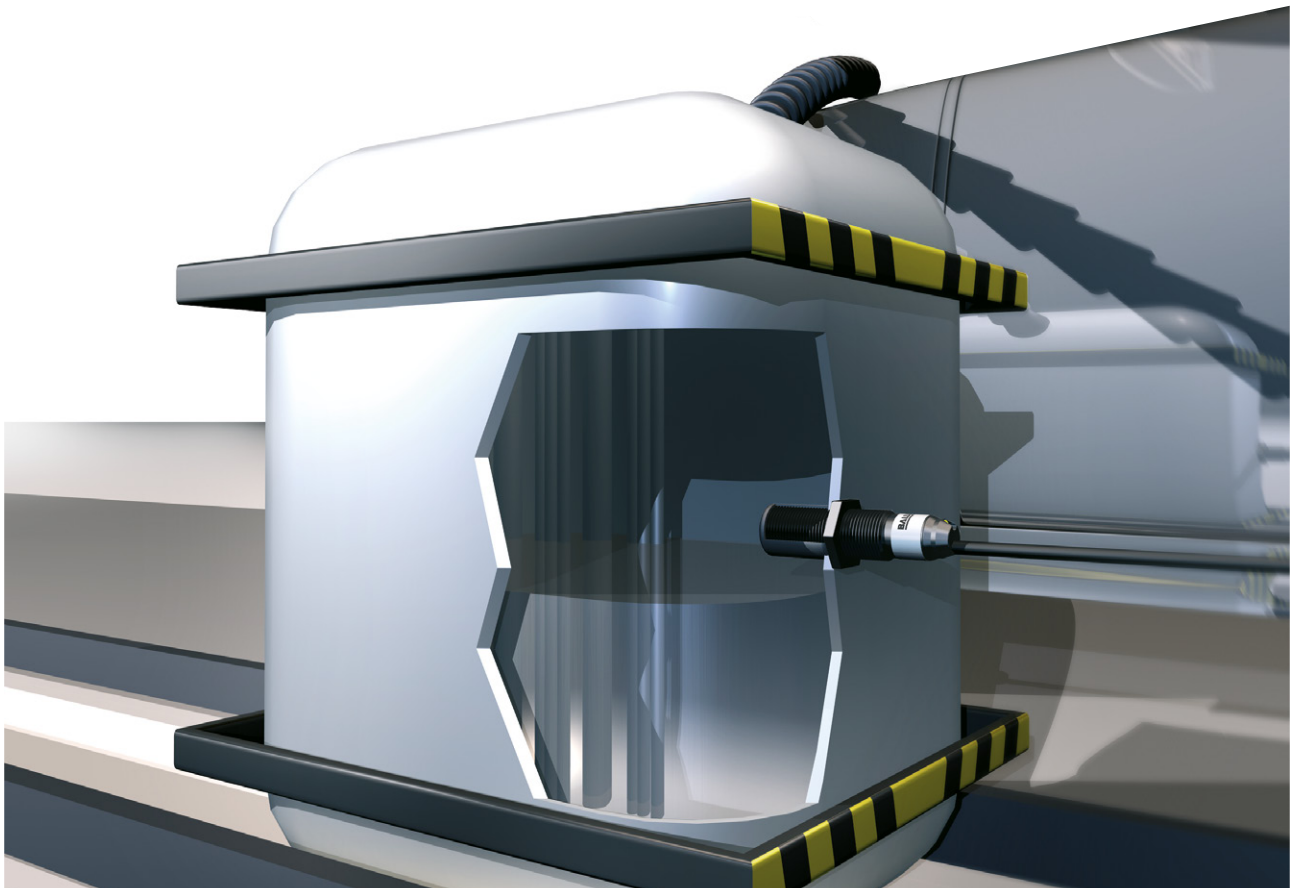


Capacitive
Global
Sensors

Performance Spectrum

Capacitive
Sensors
for Object
Detection,
Cylinder
Design,
Block
Design

Capacitive
Sensors for
Level
Detection,
Cylinder
Design



Capacitive Global Sensors

For object detection, cylinder design, DC 3-wire
M12×1, range 4 mm

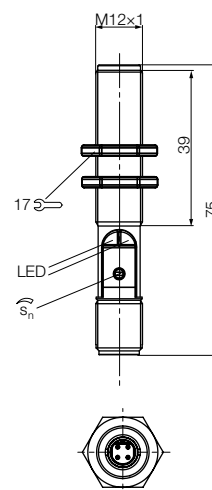
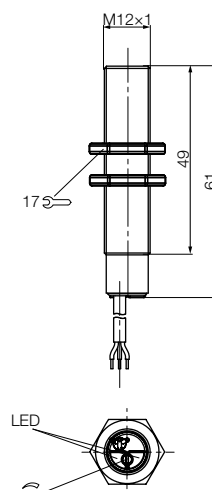
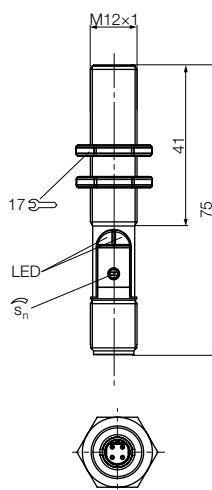
M12, M18
Global

Preferred variants
 available immediately



Size		M12×1	M12×1	M12×1
Installation type		Flush	Flush	Flush
Rated switching distance s_n		1...4 mm	1...4 mm	1...4 mm
PNP, NO	Order code	BCS00P0	BCS00R4	BCS00PJ
	Part number	BCS M12B4G2-PSC40D-S04K	BCS M12B4I1-PSC40D-EP02	BCS M12BBG2-PSC40D-S04K
PNP, NC	Order code	BCS00P1	BCS00P8	BCS00PK
	Part number	BCS M12B4G2-POC40D-S04K	BCS M12B4I1-POC40D-EP02	BCS M12BBG2-POC40D-S04K
NPN, NO	Order code	BCS00P2	BCS00P9	BCS00PL
	Part number	BCS M12B4G2-NSC40D-S04K	BCS M12B4I1-NSaC40D-EP02	BCS M12BBG2-NSC40D-S04K
NPN, NC	Order code	BCS00P3	BCS00PA	BCS00PM
	Part number	BCS M12B4G2-NOC40D-S04K	BCS M12B4I1-NOC40D-EP02	BCS M12BBG2-NOC40D-S04K
Supply voltage U_S		10...30 V DC	10...30 V DC	10...30 V DC
Voltage drop U_d at I_o		≤ 1.5 V	≤ 1.5 V	≤ 1.5 V
Rated insulation voltage U_i		75 V DC	75 V DC	75 V DC
Output current max.		100 mA	100 mA	100 mA
No-load supply current I_o max.		≤ 15 mA	≤ 15 mA	≤ 15 mA
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a		-25...+85 °C	-25...+85 °C	-25...+85 °C
Switching frequency f		100 Hz	100 Hz	100 Hz
Supply voltage/output function indicator		Green LED/Yellow LED	Green LED/Yellow LED	Green LED/Yellow LED
Degree of protection as per IEC 60529		IP 67	IP 67	IP 67
Material	Housing	Stainless steel	Stainless steel	PBT
	Sensing surface	PBT	PBT	PBT
	Cover	PA 12, PBT	PA 12	PA 12, PBT
Connection		M12 connector, 4-pin, A-coded	2 m PUR cable, 3×0.14 mm²	M12 connector, 4-pin, A-coded

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	BCC036P
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036N

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

Recommended accessories

Description	Order code
Mounting bracket	BAM00C0
Mounting bracket	BAM00EY

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

Capacitive Global Sensors

For object detection, cylinder design, DC 3-wire

M12×1, M18×1, range 4 mm, 8 mm



M12×1	M18×1	M18×1	M18×1	M18×1
Flush	Flush	Flush	Flush	Flush
1...4 mm	2...8 mm	2...8 mm	2...8 mm	2...8 mm
BCS00PU	BCS00MF	BCS00LK	BCS00M8	BCS00NZ
BCS M12BBI1-PSC40D-EP02	BCS M18B4I3-PSC80D-S04K	BCS M18B4N1-PSC80D-EP02	BCS M18BBI3-PSC80D-S04K	BCS M18BBN1-PSC80D-EP02
BCS00PW	BCS00M4	BCS00LR	BCS00MH	BCS00M1
BCS M12BBI1-POC40D-EP02	BCS M18B4I3-POC80D-S04K	BCS M18B4N1-POC80D-EP02	BCS M18BBI3-POC80D-S04K	BCS M18BBN1-POC80D-EP02
BCS00PY	BCS00M5	BCS00LN	BCS00MJ	BCS00M2
BCS M12BBI1-NSC40D-EP02	BCS M18B4I3-NSC80D-S04K	BCS M18B4N1-NSC80D-EP02	BCS M18BBI3-NSC80D-S04K	BCS M18BBN1-NSC80D-EP02
BCS00PZ	BCS00M6	BCS00LP	BCS00MK	BCS00M3
BCS M12BBI1-NOC40D-EP02	BCS M18B4I3-NOC80D-S04K	BCS M18B4N1-NOC80D-EP02	BCS M18BBI3-NOC80D-S04K	BCS M18BBN1-NOC80D-EP02
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
≤ 1.5 V	≤ 1.5 V	≤ 1.5 V	≤ 1.5 V	≤ 1.5 V
75 V DC	75 V DC	75 V DC	75 V DC	75 V DC
100 mA	100 mA	100 mA	100 mA	100 mA
≤ 15 mA	≤ 15 mA	≤ 15 mA	≤ 15 mA	≤ 15 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
Green LED/Yellow LED	Green LED/Yellow LED	Green LED/Yellow LED	Green LED/Yellow LED	Green LED/Yellow LED
IP 67	IP 67	IP 67	IP 67	IP 67
PBT	Stainless steel	Stainless steel	PBT	PBT
PBT	PBT	PBT	PBT	PBT
PA 12	PA 12, PBT	PA 12	PA 12, PBT	PA 12
2 m PUR cable, 3×0.14 mm²	M12 connector, 4-pin, A-coded	2 m PUR cable, 3×0.34 mm²	M12 connector, 4-pin, A-coded	2 m PUR cable, 3×0.34 mm²

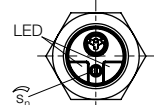
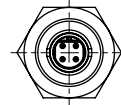
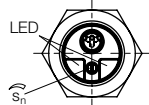
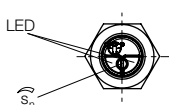
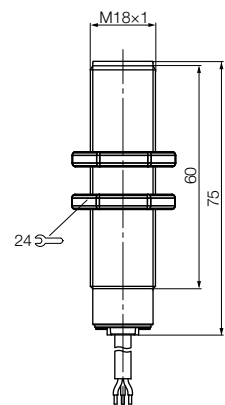
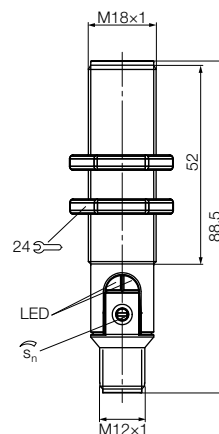
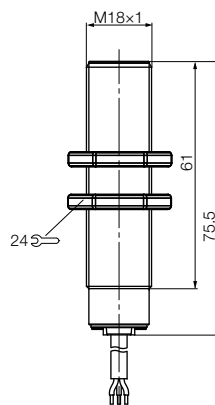
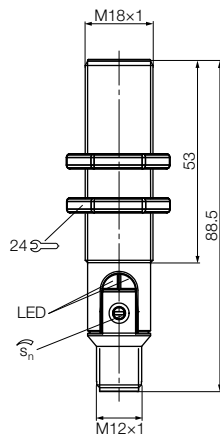
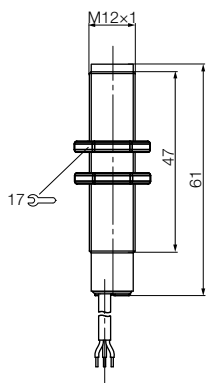


Capacitive
Global
Sensors

Performance
Spectrum

Capacitive
Sensors
for Object
Detection,
Cylinder
Design,
Block
Design

Capacitive
Sensors for
Level
Detection,
Cylinder
Design



Capacitive Global Sensors

For object detection, cylinder design, DC 3-wire
M30×1.5, range 15 mm

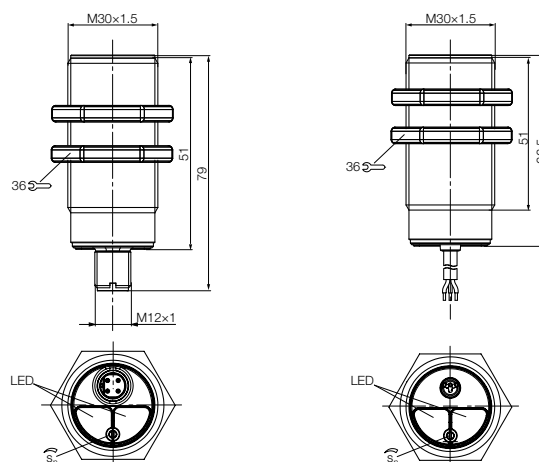
M30
Global

Preferred variants
available immediately



Size		M30×1.5	M30×1.5	
Installation type		Flush	Flush	
Rated switching distance s_n		2...15 mm	2...15 mm	
PNP, NO	Order code	BCS00MR	BCS00N2	
	Part number	BCS M30B4I2-PSC15D-S04K	BCS M30B4I1-PSC15D-EP02	
PNP, NC	Order code	BCS00MT	BCS00N3	
	Part number	BCS M30B4I2-POC15D-S04K	BCS M30B4I1-POC15D-EP02	
NPN, NO	Order code	BCS00MU	BCS00N4	
	Part number	BCS M30B4I2-NSC15D-S04K	BCS M30B4I1-NSC15D-EP02	
NPN, NC	Order code	BCS00MW	BCS00N5	
	Part number	BCS M30B4I2-NOC15D-S04K	BCS M30B4I1-NOC15D-EP02	
Supply voltage U_S		10...30 V DC	10...30 V DC	
Voltage drop U_d at I_o		≤ 1.5 V	≤ 1.5 V	
Rated insulation voltage U_i		75 V DC	75 V DC	
Output current max.		100 mA	100 mA	
No-load supply current I_o max.		≤ 15 mA	≤ 15 mA	
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...+85 °C	-25...+85 °C	
Switching frequency f		100 Hz	100 Hz	
Supply voltage/output function indicator		Green LED/Yellow LED	Green LED/Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	
Material	Housing	Stainless steel	Stainless steel	
	Sensing surface	PBT	PBT	
	Cover	PA 12, PBT	PA 12, PBT	
Connection		M12 connector, 4-pin, A-coded	2 m PUR cable, 3×0.34 mm ²	

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	BCC036P
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036N

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

Recommended accessories

Description	Order code
Mounting bracket	BAM00HH
Clamping holders	BAM015H
Mounting cuff	BAM00HN

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

Capacitive Global Sensors

For object detection, cylinder design, DC 3-wire M30×1.5, range 15 mm



M30×1.5	M30×1.5		
Flush	Flush		
2...15 mm	2...15 mm		
BCS00NA	BCS00NM		
BCS M30BBI2-PSC15D-S04K	BCS M30BBI1-PSC15D-EP02		
BCS00NC	BCS00NN		
BCS M30BBI2-POC15D-S04K	BCS M30BBI1-POC15D-EP02		
BCS00NE	BCS00NP		
BCS M30BBI2-NSC15D-S04K	BCS M30BBI1-NSC15D-EP02		
BCS00NF	BCS00NR		
BCS M30BBI2-NOC15D-S04K	BCS M30BBI1-NOC15D-EP02		
10...30 V DC	10...30 V DC		
≤ 1.5 V	≤ 1.5 V		
75 V DC	75 V DC		
100 mA	100 mA		
≤ 15 mA	≤ 15 mA		
Yes/Yes/Yes	Yes/Yes/Yes		
-25...+85 °C	-25...+85 °C		
100 Hz	100 Hz		
Green LED/Yellow LED	Green LED/Yellow LED		
IP 67	IP 67		
PBT	PBT		
PBT	PBT		
PA 12, PBT	PA 12, PBT		
M12 connector, 4-pin, A-coded	2 m PUR cable, 3×0.34 mm²		

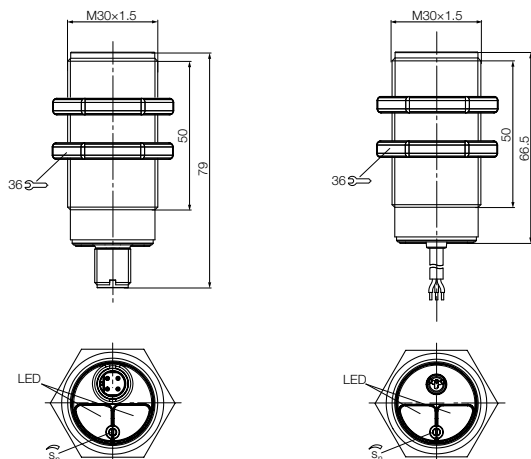


Capacitive
Global
Sensors

Performance
Spectrum

Capacitive
Sensors
for Object
Detection,
Cylinder
Design,
Block
Design

Capacitive
Sensors for
Level
Detection,
Cylinder
Design



Capacitive Global Sensors
For object detection, block design, DC 3-wire
40×40×10 mm Uniflat, range 20 mm

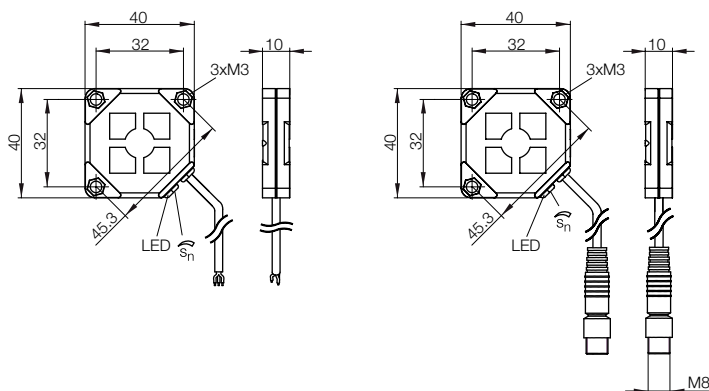
40×40×10 mm
16×34×8 mm
Global

Preferred variants
available immediately



Size		40×40×10 mm Uniflat	40×40×10 mm Uniflat
Installation type		Flush	Flush
Rated switching distance s_n		1...20 mm	1...20 mm
PNP/NPN and NO/NC, can be coded	Order code	BCS00TR	
	Part number	BCS Q40BBAA-GPC20C-EP02	
PNP, NO	Order code		BCS00U6
	Part number		BCS Q40BBAA-PSC20C-EP00,3-GS49
PNP, NC	Order code		BCS00U5
	Part number		BCS Q40BBAA-POC20C-EP00,3-GS49
Supply voltage U_s		10...30 V DC	10...30 V DC
Voltage drop U_d at I_o		≤ 2.5 V	≤ 2.5 V
Rated insulation voltage U_i		75 V DC	75 V DC
Output current max.		100 mA	100 mA
No-load supply current I_o max.		≤ 15 mA	≤ 15 mA
Polarity reversal protected/transposition protected/short-circuit protected		No/No/Yes	Yes/Yes/Yes
Ambient temperature T_a		-5...+85 °C	-5...+85 °C
Switching frequency f		100 Hz	100 Hz
Supply voltage/output function indicator		Green LED/Yellow LED	Green LED/Yellow LED
Degree of protection as per IEC 60529		IP 67	IP 67
Material	Housing	PBT	PBT
	Sensing surface	PBT	PBT
	Cover	PBT	PBT
Connection		2 m PUR cable, 3×0.14 mm ²	0.3 m PUR cable with M8 plug, 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	5 m/PVC	BCC02NW

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

Recommended accessories

Description	Order code
Ø 20 mm sensor holder	BAM01UL

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

Capacitive Global Sensors

For object detection, block design, DC 3-wire

16x34x8 mm Micro-Box



Preferred variants
available immediately



Size		16x34x8 mm MicroBox	16x34x8 mm MicroBox
Mounting type		Flush	Flush
Rated switching distance s_n		1...8 mm	1...8 mm
PNP, NO	Order code	BCS012T	BCS012A
	Part number	BCS R08RRE-PSM80C-EP00,3-GS75	BCS R08RRE-PSM80C-EP02
PNP, NC	Order code	BCS012U	BCS012C
	Part number	BCS R08RRE-POM80C-EP00,3-GS75	BCS R08RRE-POM80C-EP02
NPN, NO	Order code	BCS012W	BCS012E
	Part number	BCS R08RRE-NSM80C-EP00,3-GS75	BCS R08RRE-NSM80C-EP02
NPN, NC	Order code	BCS012Y	BCS012F
	Part number	BCS R08RRE-NOM80C-EP00,3-GS75	BCS R08RRE-NOM80C-EP02
Supply voltage U_s		12...30 V DC	12...30 V DC
Voltage drop U_d at I_o		≤ 1.5 V	≤ 1.5 V
Rated insulation voltage U_i		75 V DC	75 V DC
Output current max.		50 mA	50 mA
No-load supply current I_o max.		≤ 12 mA	≤ 12 mA
Polarity reversal protected/transposition protected/ short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes
Ambient temperature T_a		-25...+70 °C	-25...+70 °C
Switching frequency f		50 Hz	50 Hz
Output function indicator		Yellow LED	Yellow LED
Degree of protection as per IEC 60529		IP 67	IP 67
Material	Housing	PP	PP
	Sensing surface	PP	PP
Connection		0.3 m PUR cable, 4x0.14 mm ² with M8 connector, 4-pin	2 m PUR cable, 4x0.14 mm ²

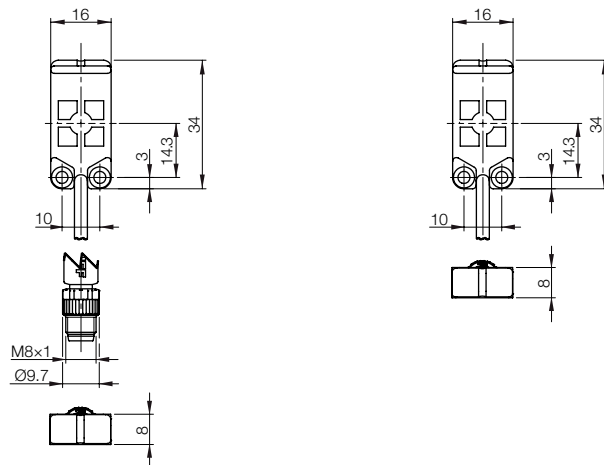
Capacitive
Global
Sensors

Performance
Spectrum

Capacitive
Sensors
for Object
Detection,
Cylinder
Design,
Block
Design

Capacitive
Sensors for
Level
Detection,
Cylinder
Design

Other variants on our website or on request.



Capacitive Global Sensors

For level detection, cylinder design, DC 3-wire

M12x1

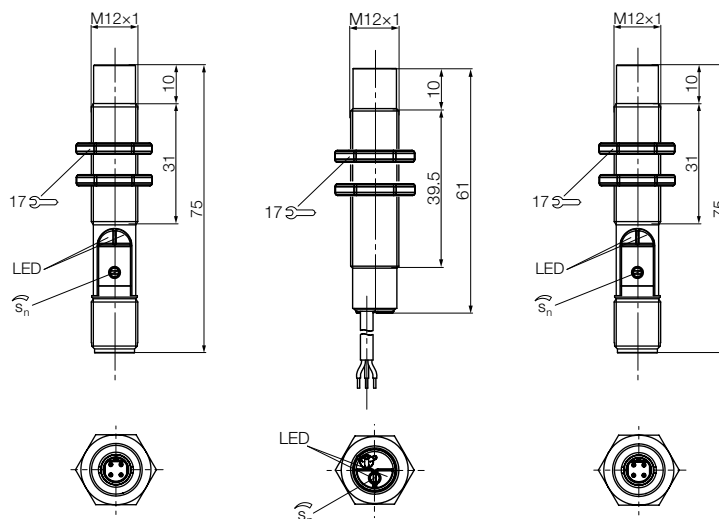
M12, M18
Metal
Global

Preferred variants
available immediately



Size		M12x1	M12x1	M12x1	
Installation type		Non-flush	Non-flush	Non-flush	
Rated switching distance s_n		1...8 mm	1...8 mm	1...8 mm	
PNP, NO	Order code	BCS00P4	BCS00PC	BCS00PN	
	Part number	BCS M12B4E2-PSC80H-S04K	BCS M12B4G1-PSC80H-EP02	BCS M12BBE2-PSC80H-S04K	
PNP, NC	Order code	BCS00P5	BCS00PE	BCS00PP	
	Part number	BCS M12B4E2-POC80H-S04K	BCS M12B4G1-POC80H-EP02	BCS M12BBE2-POC80H-S04K	
NPN, NO	Order code	BCS00P6	BCS00PF	BCS00PR	
	Part number	BCS M12B4E2-NSC80H-S04K	BCS M12B4G1-NSC80H-EP02	BCS M12BBE2-NSC80H-S04K	
NPN, NC	Order code	BCS00P7	BCS00PH	BCS00PT	
	Part number	BCS M12B4E2-NOC80H-S04K	BCS M12B4G1-NOC80H-EP02	BCS M12BBE2-NOC80H-S04K	
Supply voltage U_s		10...30 V DC	10...30 V DC	10...30 V DC	
Voltage drop U_d at I_o		≤ 1.5 V	≤ 1.5 V	≤ 1.5 V	
Rated insulation voltage U_i		75 V DC	75 V DC	75 V DC	
Output current max.		100 mA	100 mA	100 mA	
No-load supply current I_o max.		≤ 15 mA	≤ 15 mA	≤ 15 mA	
Polarity reversal protected/transposition protected/short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...+85 °C	-25...+85 °C	-25...+85 °C	
Switching frequency f		100 Hz	100 Hz	100 Hz	
Output function indicator		Yellow LED	Yellow LED	Green LED/Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	IP 67	
Material	Housing	Stainless steel	Stainless steel	Stainless steel	
	Sensing surface	PBT	PBT	PBT	
	Cover	PA 12, PBT	PA 12	PA 12, PBT	
Connection		M12 connector, 4-pin, A-coded	2 m PUR cable, 3x0.14 mm ²	M12 connector, 4-pin, A-coded	

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	BCC036P
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036N

Recommended accessories

Description	Order code
Mounting bracket	BAM00C0
Mounting bracket	BAM00EY
Clamping holder with positive stop	BAM00CY

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

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

Capacitive Global Sensors

For level detection, cylinder design, DC 3-wire M12×1, M18x1



M12×1	M18×1	M18×1	M18×1	M18×1
Non-flush	Non-flush	Non-flush	Non-flush	Non-flush
1...8 mm	2..15 mm	2..15 mm	2..15 mm	2..15 mm
BCS00R0	BCS00ME	BCS00M7	BCS00LM	BCS00LL
BCS M12BBG1-PSC80H-EP02	BCS M18B4G2-PSC15H-S04K	BCS M18B4H1-PSC15H-EP02	BCS M18BBG2-PSC15H-S04K	BCS M18BBH1-PSC15H-EP02
BCS00R1	BCS00ML	BCS00M9	BCS00LT	BCS00LY
BCS M12BBG1-POC80H-EP02	BCS M18B4G2-POC15H-S04K	BCS M18B4H1-POC15H-EP02	BCS M18BBG2-POC15H-S04K	BCS M18BBH1-POC15H-EP02
BCS00R2	BCS00MM	BCS00MA	BCS00LU	BCS00LZ
BCS M12BBG1-NSC80H-EP02	BCS M18B4G2-NSC15H-S04K	BCS M18B4H1-NSC15H-EP02	BCS M18BBG2-NSC15H-S04K	BCS M18BBH1-NSC15H-EP02
BCS00R3	BCS00MN	BCS00MC	BCS00LW	BCS00M0
BCS M12BBG1-NOC80H-EP02	BCS M18B4G2-NOC15H-S04K	BCS M18B4H1-NOC15H-EP02	BCS M18BBG2-NOC15H-S04K	BCS M18BBH1-NOC15H-EP02
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
≤ 1.5 V	≤ 1.5 V	≤ 1.5 V	≤ 1.5 V	≤ 1.5 V
75 V DC	75 V DC	75 V DC	75 V DC	75 V DC
100 mA	100 mA	100 mA	100 mA	100 mA
≤ 15 mA	≤ 15 mA	≤ 15 mA	≤ 15 mA	≤ 15 mA
Yes/Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C
100 Hz	100 Hz	100 Hz	100 Hz	100 Hz
Green LED/Yellow LED	Green LED/Yellow LED	Green LED/Yellow LED	Green LED/Yellow LED	Green LED/Yellow LED
IP 67	IP 67	IP 67	IP 67	IP 67
PBT	Stainless steel	Stainless steel	PBT	PBT
PBT	PBT	PBT	PBT	PBT
PA 12	PA 12, PBT	PA 12	PA 12, PBT	PA 12
2 m PUR cable, 3×0.14 mm²	M12 connector, 4-pin, A-coded	2 m PUR cable, 3×0.34 mm²	M12 connector, 4-pin, A-coded	2 m PUR cable 3×0.34 mm²

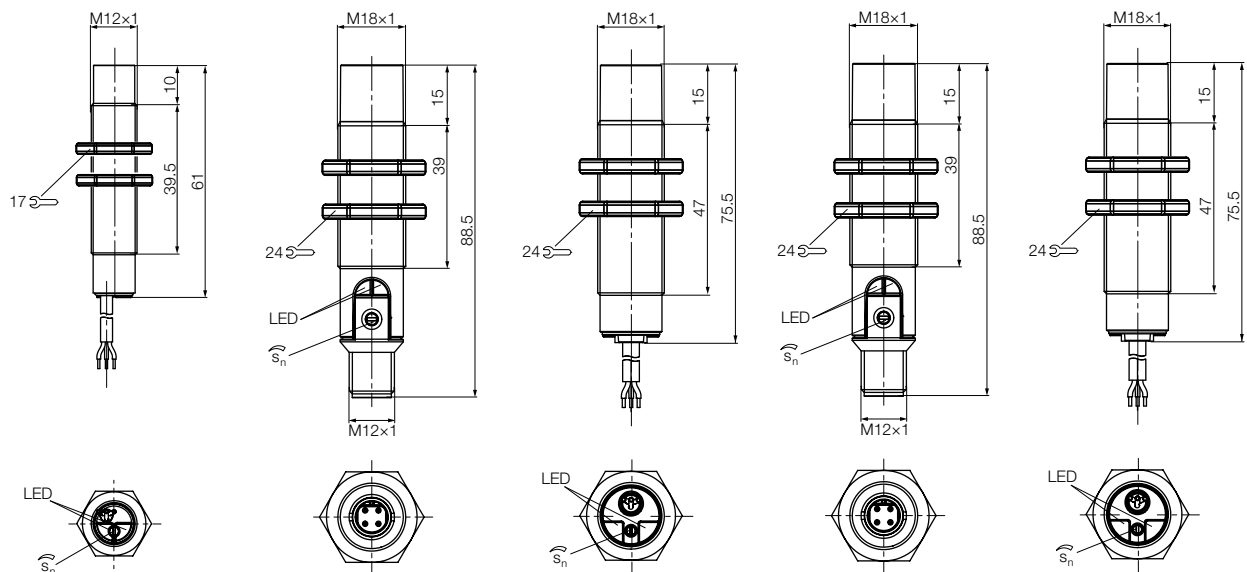


Capacitive
Global
Sensors

Performance
Spectrum

Capacitive
Sensors
for Object
Detection,
Cylinder
Design,
Block
Design

Capacitive
Sensors for
Level
Detection,
Cylinder
Design



Capacitive Global Sensors

For level detection, cylinder design, DC 3-wire

M30x1.5

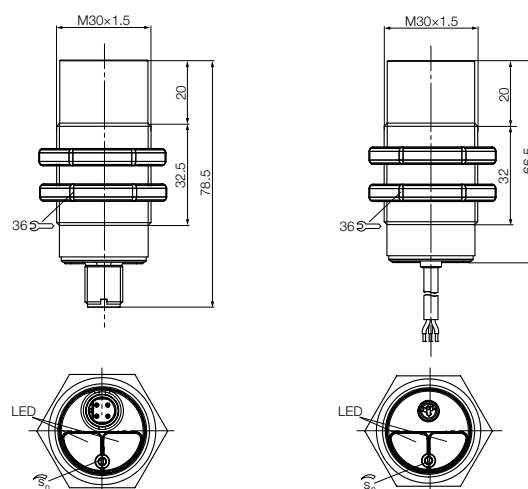


Preferred variants
available immediately



Size		M30x1.5	M30x1.5	
Installation type		Non-flush	Non-flush	
Rated switching distance s_n		1...25 mm	1...25 mm	
PNP, NO	Order code	BCS00MY	BCS00N6	
	Part number	BCS M30B4E2-PSC25H-S04K	BCS M30B4E1-PSC25H-EP02	
PNP, NC	Order code	BCS00MZ	BCS00N7	
	Part number	BCS M30B4E2-POC25H-S04K	BCS M30B4E1-POC25H-EP02	
NPN, NO	Order code	BCS00N0	BCS00N8	
	Part number	BCS M30B4E2-NSC25H-S04K	BCS M30B4E1-NSC25H-EP02	
NPN, NC	Order code	BCS00N1	BCS00N9	
	Part number	BCS M30B4E2-NOC25H-S04K	BCS M30B4E1-NOC25H-EP02	
Supply voltage U_s		10...30 V DC	10...30 V DC	
Voltage drop U_d at I_o		≤ 1.5 V	≤ 1.5 V	
Rated insulation voltage U_i		75 V DC	75 V DC	
Output current max.		100 mA	100 mA	
No-load supply current I_o max.		≤ 15 mA	≤ 15 mA	
Polarity reversal protected/transposition protected/ short-circuit protected		Yes/Yes/Yes	Yes/Yes/Yes	
Ambient temperature T_a		-25...+85 °C	-25...+85 °C	
Switching frequency f		100 Hz	100 Hz	
Supply voltage/output function indicator		Green LED/Yellow LED	Green LED/Yellow LED	
Degree of protection as per IEC 60529		IP 67	IP 67	
Material	Housing	Stainless steel	Stainless steel	
	Sensing surface	PBT	PBT	
	Cover	PA 12, PBT	PA 12, PBT	
Connection		M12 connector, 4-pin, A-coded	2 m PUR cable, 3x0.34 mm ²	

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	BCC036P
M12, 4-pin/straight	5 m/PVC	BCC0368
M12, 4-pin/angled	5 m/PVC	BCC036N

Recommended accessories

Description	Order code
Mounting bracket	BAM00HH
Mounting cuff	BAM00HN

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

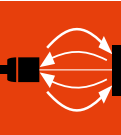
You can find additional mechanical accessories in
our catalog **Accessories Line**.

Capacitive Global Sensors

For level detection, cylinder design, DC 3-wire M30×1.5



M30×1.5	M30×1.5		
Non-flush	Non-flush		
1...25 mm	1...25 mm		
BCS00NH	BCS00NT		
BCS M30BBE2-PSC25H-S04K	BCS M30BBE1-PSC25H-EP02		
BCS00NJ	BCS00NU		
BCS M30BBE2-POC25H-S04K	BCS M30BBE1-POC25H-EP02		
BCS00NK	BCS00NW		
BCS M30BBE2-NSC25H-S04K	BCS M30BBE1-NSC25H-EP02		
BCS00NL	BCS00NY		
BCS M30BBE2-NOC25H-S04K	BCS M30BBE1-NOC25H-EP02		
10...30 V DC	10...30 V DC		
≤ 1.5 V	≤ 1.5 V		
75 V DC	75 V DC		
100 mA	100 mA		
≤ 15 mA	≤ 15 mA		
Yes/Yes/Yes	Yes/Yes/Yes		
-25...+85 °C	-25...+85 °C		
100 Hz	100 Hz		
Green LED/Yellow LED	Green LED/Yellow LED		
IP 67	IP 67		
PBT	PBT		
PBT	PBT		
PA 12, PBT	PA 12, PBT		
M12 connector, 4-pin, A-coded	2 m PUR cable, 3×0.34 mm ²		

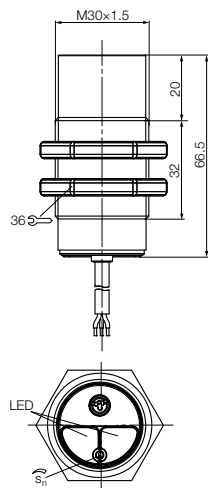
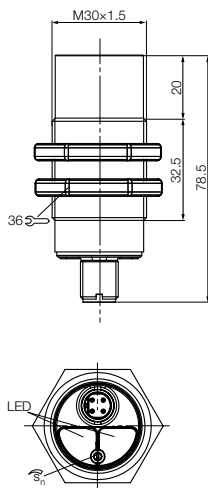


Capacitive
Global
Sensors

Performance
Spectrum

Capacitive
Sensors
for Object
Detection,
Cylinder
Design,
Block
Design

Capacitive
Sensors for
Level
Detection,
Cylinder
Design





Magnetic Global Cylinder Sensors

Magnetic Global cylinder sensors – for perfect grip in the pneumatic cylinder

Our compact magnetic Global cylinder sensors offer the perfect grip. They are precisely matched to the different cylinder groove shapes. Therefore, they can not only be installed flush in the respective slot, but also fit in completely.

- Insertion from above or the side
- Cable or connector versions
- Compact design

For the C-slot: BMF 204 and BMF 214

BMF 204 – for 3.8 mm slot

BMF 214 – for 4 mm slot

- Can be inserted via the groove end
- Exceptional grip
- Miniature design for grippers and short-stroke cylinders
- Exactly positionable

For the T-slot: BMF 235

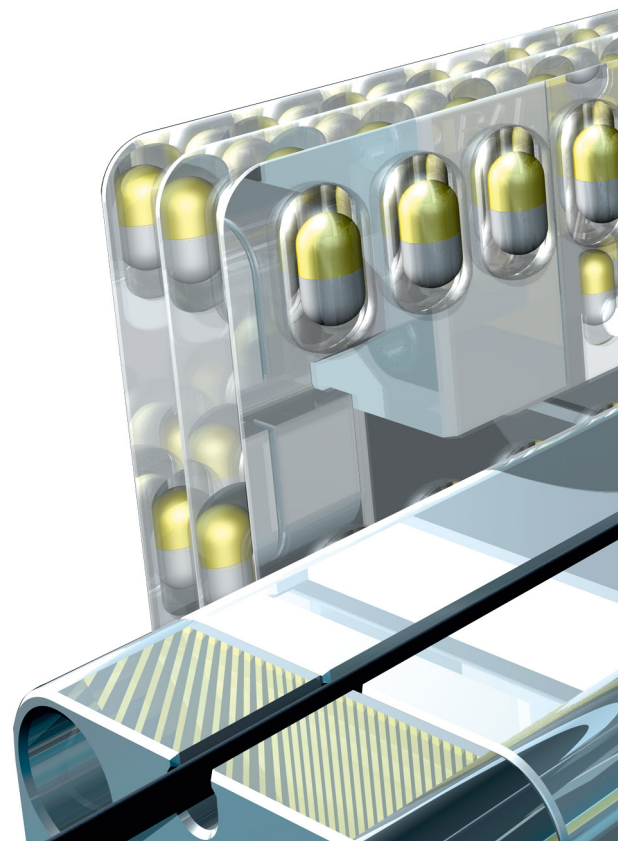
BMF 235 – the standard

- Large and extremely bright LED for simple diagnostics
- Can be installed in the T-slot from above (drop-in installation)
- with standard screwdriver or 1.5 mm Allen key
- Short, compact design with outstanding grip

V-Twin® – one plug for two sensors

In M8 or M12

- With one 4-core or 3-core cables
- Reduces use of materials
- Fast installation
- Lowers costs
- Simply double sensors on a multi-interface block/sensor splitter





Magnetic Global Cylinder Sensors

Contents

Compact Design

BMF 204

70

BMF 214

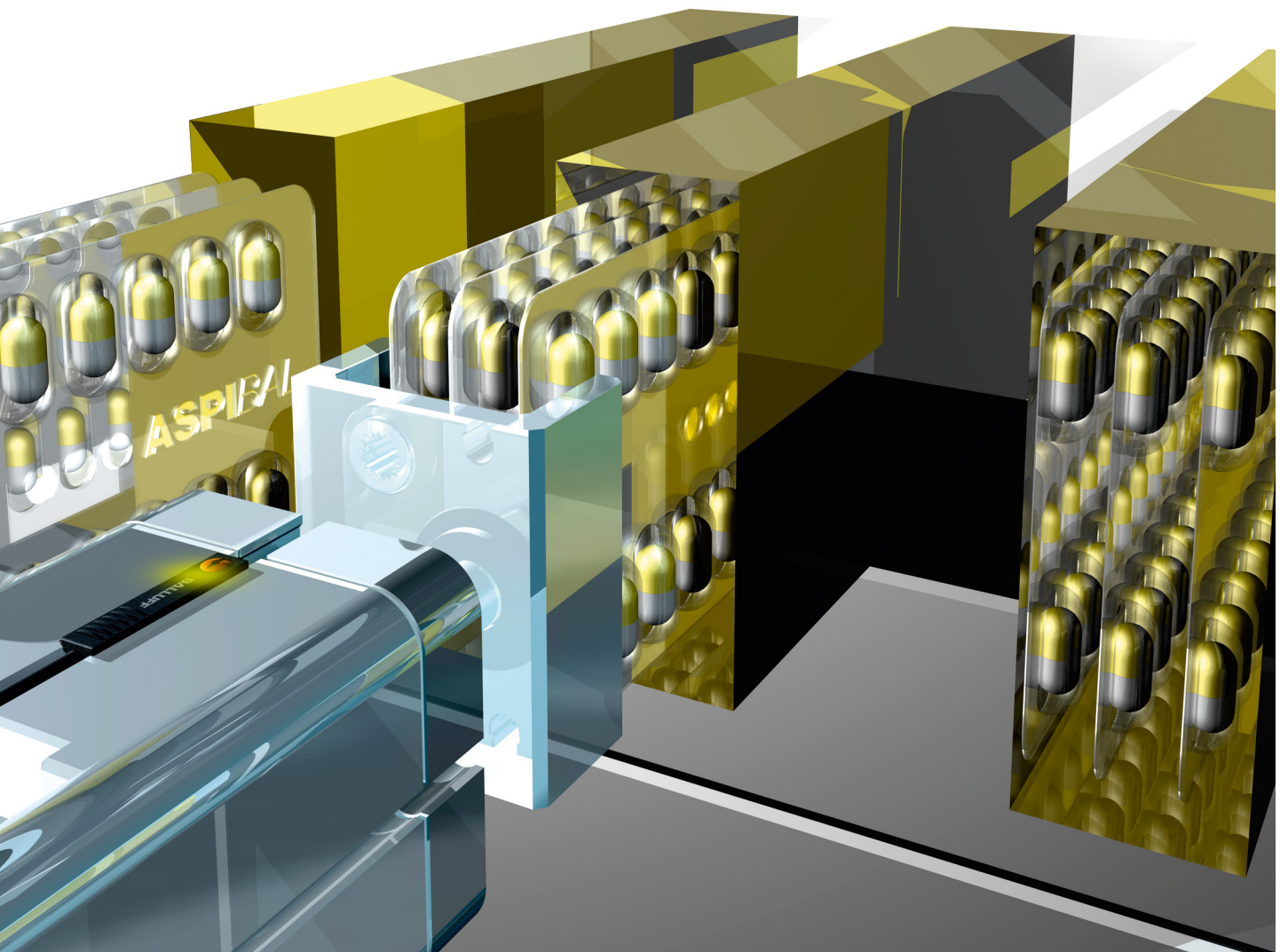
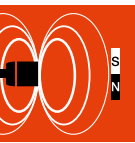
72

BMF 243

74

BMF 235

76



Magnetic Global Cylinder Sensors

Compact design, BMF 204

C-slot (size 10 slot)

Global

Secure hold in the slot

The design is adapted to the slot, i.e. the sensor can be inserted into the slot.

Installed and adjusted quickly and easily

The retaining element is integrated into the sensor.

Can also be used in space-critical applications

Flush-mounted, the sensor "disappears" in the slot.

Optimum solution for every gripper and short-stroke cylinder

Miniature design, extremely short

Preferred variants
available immediately



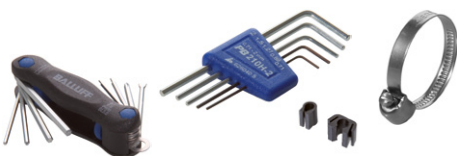
Series		
Properties		
PNP, NO	Order code	
	Part number	
Supply voltage U_s		
Voltage drop U_d		
Rated insulation voltage U_i		
Rated operating current I_o		
No-load supply current I_o max.		
Polarity reversal protected/transposition protected/short-circuit protected		
Rated switching field strength $I H_n$		
Assured switching field strength $I H_a$		
Temperature drift of switch-on point of $I H_n$		
On/off delay		
Ambient temperature T_a		
Degree of protection as per IEC 60529		
Approval		
Material	Housing	
Connection		
Assembly		
Slot		

Other variants on our website or on request.



The BMF 204 and BMF 214 have an impressive, extremely compact design.

Recommended accessories (please order separately)

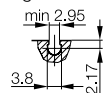


Special accessories for magnetic cylinder sensors, such as **installation tools, cable clips, or hose clamps**, can be found in the Object Detection catalog on page 879.

Slot dimension

C-slot (size 10 slot)

e.g. Festo



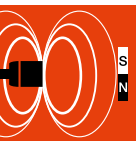


Magnetic Global Cylinder Sensors

Compact design, BMF 204

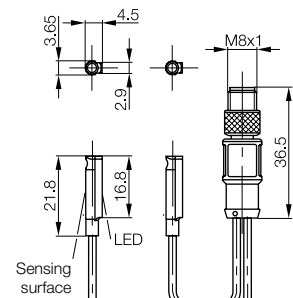
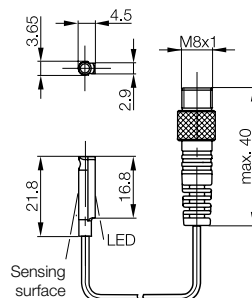
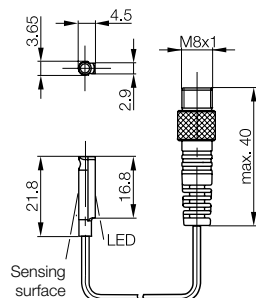
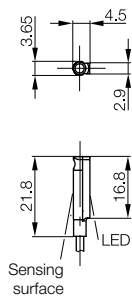


BMF 204	BMF 204	BMF 204	BMF 204
Small housing for the Festo C-slot with direct PUR cable	Small housing for the Festo C-slot with M8 connector	Small housing for the Festo C-slot with M8 connector	Small housing for the Festo C-slot with M12 connector
BMF0001	BMF0002	BMF0003	BMF00A6
BMF 204K-PS-C-2A-PU-02	BMF 204K-PS-C-2A-SA2-S49-00,3	BMF 204K-PS-C-2A-SA2-S49-00,5	BMF 204K-PS-C-2A-SA2-S4-00,3
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
≤ 2.5 V	≤ 2.5 V	≤ 2.5 V	≤ 2.5 V
75 V DC	75 V DC	75 V DC	75 V DC
100 mA	100 mA	100 mA	100 mA
≤ 8 mA	≤ 8 mA	≤ 8 mA	≤ 8 mA
Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
1.2 kA/m	1.2 kA/m	1.2 kA/m	1.2 kA/m
≥ 2 kA/m	≥ 2 kA/m	≥ 2 kA/m	≥ 2 kA/m
≤ 0.3%/°C	≤ 0.3%/°C	≤ 0.3%/°C	≤ 0.3%/°C
≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms
-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C
IP 67	IP 67	IP 67	IP 67
CE, cULus	CE, cULus	CE, cULus	CE, cULus
PA12	PA12	PA12	PA12
2 m PUR cable, 3×0.1 mm ²	0.3 m PUR cable with M8 connector, 3-pin	0.5 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M12 connector, 4-pin
Can be inserted from the side	Can be inserted from the side	Can be inserted from the side	Can be inserted from the side
┘ C-slot (size 10 slot)	┘ C-slot (size 10 slot)	┘ C-slot (size 10 slot)	┘ C-slot (size 10 slot)



Magnetic Global Cylinder Sensors in Compact Design

BMF 204
BMF 214
BMF 243
BMF 235



Magnetic Global Cylinder Sensors

Compact design, BMF 214

C-slot (rounded groove)

Global

Secure hold in the slot

The design is adapted to the slot, i.e. the sensor can be inserted into the slot.

Installed and adjusted quickly and easily

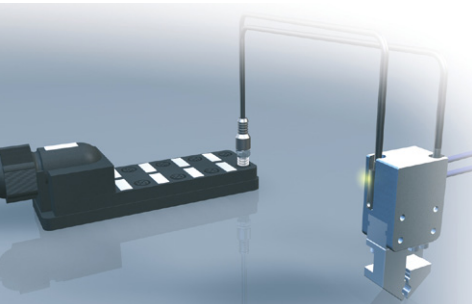
The retaining element is integrated into the sensor.

Can also be used in space-critical applications

Flush-mounted, the sensor "disappears" in the slot.

Optimum solution for every gripper and short-stroke cylinder

Miniature design, extremely short.



V-Twin – two sensors, one connector

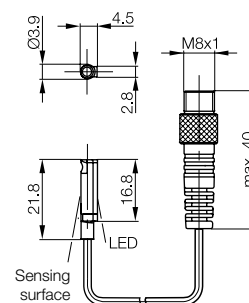
- Save on connectors and increase value creation.
- Just one plug-in position for two sensors
- Flexibly detect multiple positions on pneumatic grippers and cylinders.

Preferred variants available immediately

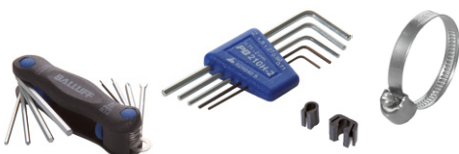


Series	BMF 214	
Properties	Small housing for the SMC C-slot with M8 connector	
PNP, NO	Order code	BMF00A2
	Part number	BMF 214K-PS-C-2A-SA2-S49-00,3
Supply voltage U_S	10...30 V DC	
Voltage drop U_d	≤ 2.5 V	
Rated insulation voltage U_i	75 V DC	
Rated operating current I_o	100 mA	
No-load supply current I_o max.	≤ 8 mA	
Polarity reversal protected/transposition protected/short-circuit protected	Yes/Yes	
Rated switching field strength $I H_n I$	1.2 kA/m	
Assured switching field strength $I H_a I$	≥ 2 kA/m	
Temperature drift of switch-on point of $I H_n I$	$\leq 0.3\%/^{\circ}\text{C}$	
On/off delay	≤ 0.07 ms/ ≤ 0.07 ms	
Ambient temperature T_a	$-25...+85$ °C	
Degree of protection as per IEC 60529	IP 67	
Approval	CE, cULus	
Material	Housing	PA12
Connection	0.3 m PUR cable with M8 connector, 3-pin	
Assembly	Can be inserted from the side	
Slot	C-slot (rounded groove)	

Other variants on our website or on request.



Recommended accessories (please order separately)



Special accessories for magnetic cylinder sensors, such as **installation tools, cable clips, or hose clamps**, can be found in the Object Detection catalog on page 879.

Slot dimension

C-slot (rounded groove)

e.g. SMC





Magnetic Global Cylinder Sensors

Compact design, BMF 214

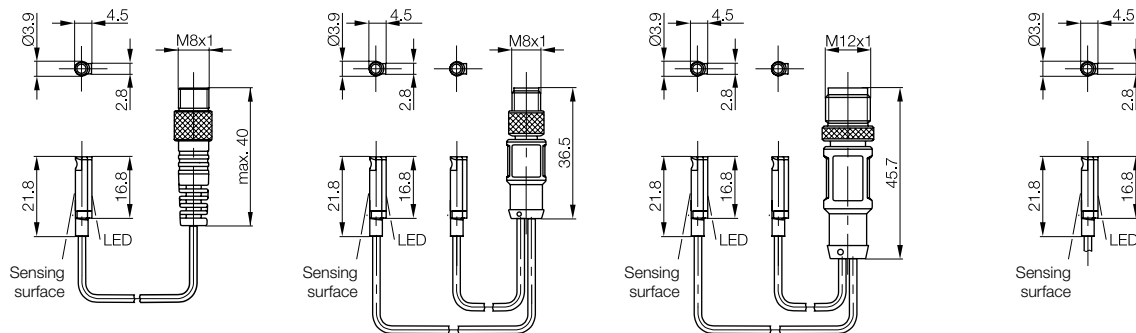


BMF 214	BMF 214	BMF 214	BMF 214
Small housing for the SMC C-slot with M8 connector	Small housing for the SMC C-slot with M8 connector	Small housing for the SMC C-slot with M12 connector	Small housing for the SMC C-slot with direct PUR cable
BMF00A3	BMF00A5	BMF00A4	BMF00A1
BMF 214K-PS-C-2A-SA2-S49-00,5	BMF 214K-PS-C-2A-SA95-S75-00,3	BMF 214K-PS-C-2A-SA95-S4-00,3	BMF 214K-PS-C-2A-PU-02
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
≤ 2.5 V	≤ 2.5 V	≤ 2.5 V	≤ 2.5 V
75 V DC	75 V DC	75 V DC	75 V DC
100 mA	100 mA	100 mA	100 mA
≤ 8 mA	≤ 8 mA	≤ 8 mA	≤ 8 mA
Yes/Yes	Yes/Yes	Yes/Yes	Yes/Yes
1.2 kA/m	1.2 kA/m	1.2 kA/m	1.2 kA/m
≥ 2 kA/m	≥ 2 kA/m	≥ 2 kA/m	≥ 2 kA/m
≤ 0.3%/°C	≤ 0.3%/°C	≤ 0.3%/°C	≤ 0.3%/°C
≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms
-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C
IP 67	IP 67	IP 67	IP 67
CE, cULus	CE, cULus	CE, cULus	CE, cULus
PA12	PA12	PA12	PA12
0.5 m PUR cable with M8 connector, 3-pin	0.3 m PUR cable with M8 connector, 4-pin	0.3 m PUR cable with M12 connector, 4-pin	2 m PUR cable, 3×0.1 mm ²
Can be inserted from the side	Can be installed from above	Can be installed from above	Can be installed from above
┐ C-slot (rounded groove)	┐ C-slot (rounded groove)	┐ C-slot (rounded groove)	┐ C-slot (rounded groove)



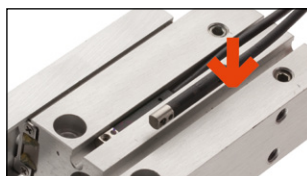
Magnetic Global Cylinder Sensors in Compact Design

BMF 204
BMF 214
BMF 243
BMF 235





New mounting concept
Solid hold in the slot, sensor cannot be wrenched from the slot.



Can be installed in the slot from above
Can be installed even on cylinders with a covered slot



Compact design, i.e. can be mounted flush
Can also be used in space-critical applications



As short as possible (24 mm)
Can also be used in space-critical applications



Preferred variants available immediately

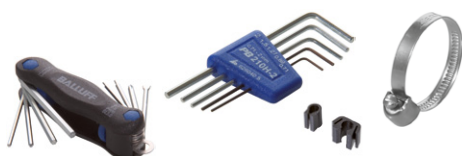


Series		
Properties		
PNP, NO	Order code	
	Part number	
PNP, NC	Order code	
	Part number	
NPN, NO	Order code	
	Part number	
NPN, NC	Order code	
	Part number	
Supply voltage U_S		
Voltage drop U_d		
Rated insulation voltage U_i		
Rated operating current I_o		
No-load supply current I_o max.		
Polarity reversal protected/transposition protected/short-circuit protected		
Rated switching field strength I_{H_n}		
Assured switching field strength I_{H_a}		
On/off delay		
Ambient temperature T_a		
Degree of protection as per IEC 60529		
Approval		
Material	Housing	
Connection		
Assembly		
Slot		

Other variants on our website or on request.



Recommended accessories
(please order separately)



Special accessories for magnetic cylinder sensors, such as **installation tools, cable clips, or hose clamps**, can be found in the Object Detection catalog on page 879.



Magnetic Global Cylinder Sensors

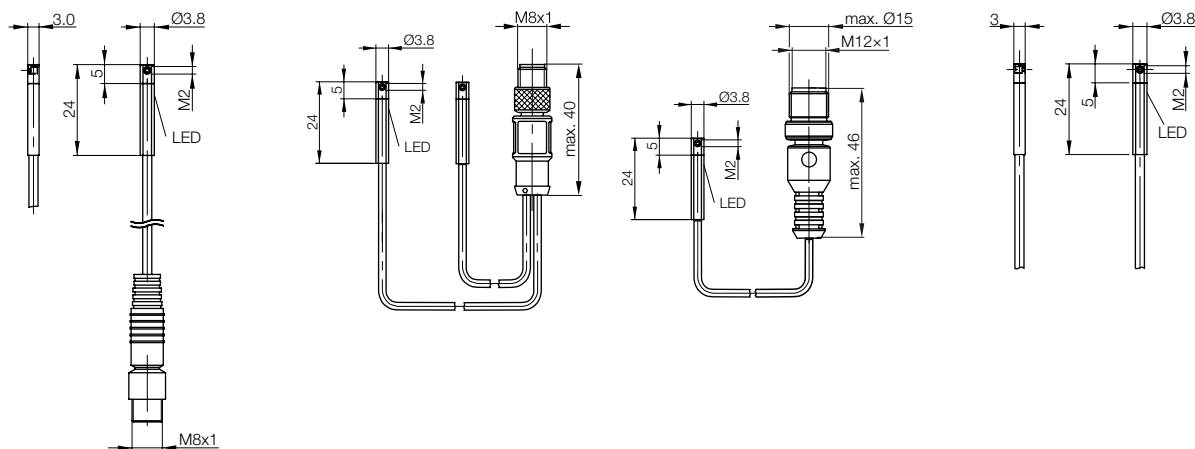
Compact design, BMF 243



BMF 243	BMF 243	BMF 243	BMF 243
The new benchmark for every C-slot (rounded groove) with M8 connector	The new benchmark for every C-slot (rounded groove) with M8 connector	The new benchmark for every C-slot (rounded groove) with M12 connector	The new benchmark for every C-slot (rounded groove) with direct PUR cable
BMF00EL	BMF00ET	BMF00ER	BMF00EF
BMF 243K-PS-C-2A-SA2-S49-00,3	BMF 243K-PS-C-2A-SA95-S75-00,3	BMF 243K-PS-C-2A-SA2-S4-00,3	BMF 243K-PS-C-2A-PU-02
BMF00EM			BMF00EH
BMF 243K-PO-C-2A-SA2-S49-00,3			BMF 243K-PO-C-2A-PU-02
BMF00EN			BMF00EJ
BMF 243K-NS-C-2A-SA2-S49-00,3			BMF 243K-NS-C-2A-PU-02
BMF00EP			BMF00EK
BMF 243K-NO-C-2A-SA2-S49-00,3			BMF 243K-NO-C-2A-PU-02
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
≤ 2.4 V	≤ 2.4 V	≤ 2.4 V	≤ 2.4 V
75 V DC	75 V DC	75 V DC	75 V DC
100 mA	100 mA	100 mA	100 mA
7.5 mA	7.5 mA	7.5 mA	7.5 mA
Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes	Yes/Yes/Yes
2 kA/m	2 kA/m	2 kA/m	2 kA/m
≥ 2.4 kA/m	≥ 2.4 kA/m	≥ 2.4 kA/m	≥ 2.4 kA/m
≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms	≤ 0.07 ms/≤ 0.07 ms
-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C
IP 67	IP 67	IP 67	IP 67
CE, cULus	CE, cULus	CE, cULus	CE, cULus
PA 12 and A2 steel	PA 12 and A2 steel	PA 12 and A2 steel	PA 12 and A2 steel
0.3 m PUR cable	0.3 m PUR cable	0.3 m PUR cable	2 m PUR cable,
with M8 connector, 3-pin	with M8 connector, 4-pin	with M12 connector, 4-pin	3×0.10 mm ²
Can be installed from above	Can be installed from above	Can be installed from above	Can be installed from above
┐ C-slot (rounded groove)	┐ C-slot (rounded groove)	┐ C-slot (rounded groove)	┐ C-slot (rounded groove)



Magnetic
Global
Cylinder
Sensors
in Compact
Design
BMF 204
BMF 214
BMF 243
BMF 235



Magnetic Global Cylinder Sensors

Compact design, BMF 235

T-slot
Global



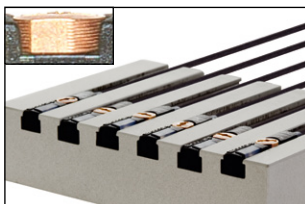
Very bright LED

Reliable detection of switching function from far away (25 m in bright factory building).



New mounting concept

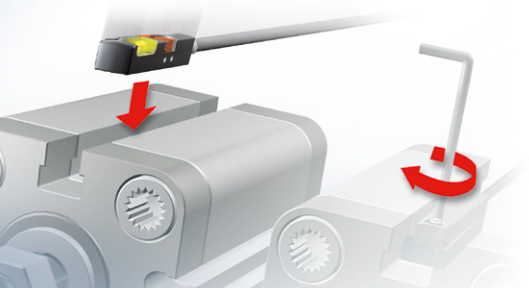
Solid hold in the slot, sensor cannot be wrenched from the slot.



Knurled screw

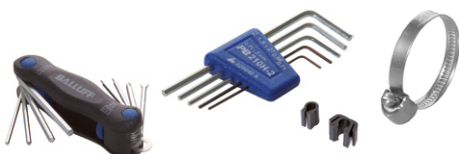
Sensor screws in firmly, extremely secure hold in any slot (e.g. Parker, Festo, SMC, Bosch).

Can be installed from above.
Easy installation with Allen or slotted screwdriver



Recommended accessories

(please order separately)



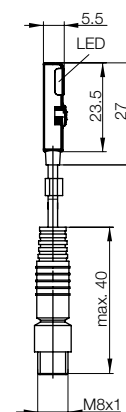
Special accessories for magnetic cylinder sensors, such as **installation tools, cable clips, or hose clamps**, can be found in the Object Detection catalog on page 879.

Preferred variants
available immediately



Series		BMF 235
Properties		The new benchmark for every T-slot with M8 connector
PNP, NO	Order code	BMF00C4
	Part number	BMF 235K-PS-C-2A-SA2-S49-00,3
PNP, NC	Order code	BMF00C6
	Part number	BMF 235K-PO-C-2A-SA2-S49-00,3
NPN, NO	Order code	BMF00C2
	Part number	BMF 235K-NS-C-2A-SA2-S49-00,3
NPN, NC	Order code	BMF00C3
	Part number	BMF 235K-NO-C-2A-SA2-S49-00,3
Supply voltage U_S		10...30 V DC
Voltage drop U_d		≤ 2.5 V
Rated insulation voltage U_i		75 V DC
Rated operating current I_o		100 mA
No-load supply current I_0 max.		6 mA
Polarity reversal protected/transposition protected/short-circuit protected		Yes/No/Yes
Rated switching field strength I_{H_n}		1.2 kA/m
Assured switching field strength I_{H_a}		≥ 2 kA/m
Temperature drift of switch-on point of I_{H_n}		≤ 0.3 %/°C
On/off delay		≤ 0.1 ms/ ≤ 0.1 ms
Ambient temperature T_a		-25...+85 °C
Degree of protection as per IEC 60529		IP 67
Approval		CE, cULus
Material	Housing	PA12
Connection		0.3 m PUR cable with M8 connector, 4-pin
Assembly		Can be installed from above
Slot		25 T-slot

Other variants on our website or on request.





Magnetic Global Cylinder Sensors

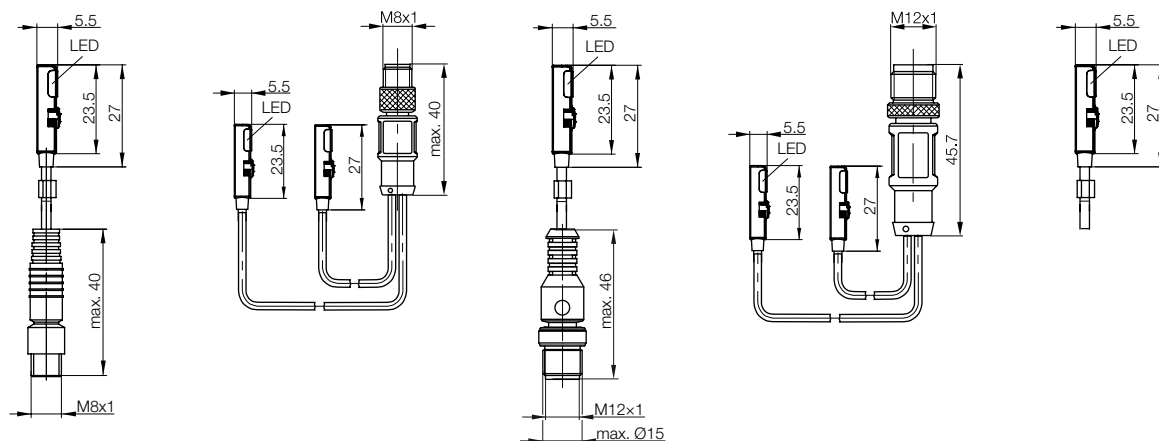
Compact design, BMF 235

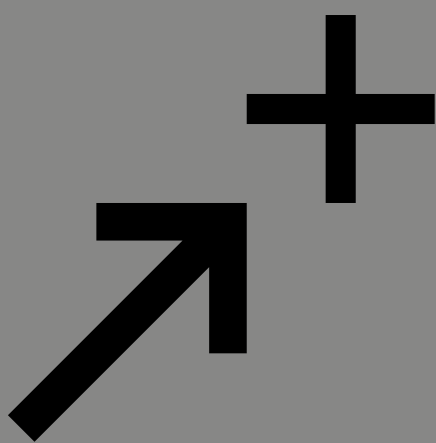


BMF 235	BMF 235	BMF 235	BMF 235	BMF 235
The new benchmark for every T-slot with M8 connector	The new benchmark for every T-slot with M8 connector	The new benchmark for every T-slot with M12 connector	The new benchmark for every T-slot with M12 connector	The new benchmark for every T-slot with direct PUR cable
BMF00CF	BMF00CA	BMF00C5	BMF00C9	BMF00AR
BMF 235K-PS-C-2A-SA2-S49-00,5	BMF 235K-PS-C-2A-SA95-S75-00,3	BMF 235K-PS-C-2A-SA2-S4-00,3	BMF 235K-PS-C-2A-SA95-S4-00,3	BMF 235K-PS-C-2A-PU-02
				BMF00AT
				BMF 235K-PO-C-2A-PU-02
				BMF00AU
				BMF 235K-NS-C-2A-PU-02
				BMF00AW
				BMF 235K-NO-C-2A-PU-02
10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC	10...30 V DC
≤ 2.5 V	≤ 2.5 V	≤ 2.5 V	≤ 2.5 V	≤ 2.5 V
75 V DC	75 V DC	75 V DC	75 V DC	75 V DC
100 mA	100 mA	100 mA	100 mA	100 mA
6 mA	6 mA	6 mA	6 mA	6 mA
Yes/No/Yes	Yes/No/Yes	Yes/No/Yes	Yes/No/Yes	Yes/No/Yes
1.2 kA/m	1.2 kA/m	1.2 kA/m	1.2 kA/m	1.2 kA/m
≥ 2 kA/m	≥ 2 kA/m	≥ 2 kA/m	≥ 2 kA/m	≥ 2 kA/m
≤ 0.3 %/°C	≤ 0.3 %/°C	≤ 0.3 %/°C	≤ 0.3 %/°C	≤ 0.3 %/°C
≤ 0.1 ms/≤ 0.1 ms	≤ 0.1 ms/≤ 0.1 ms	≤ 0.1 ms/≤ 0.1 ms	≤ 0.1 ms/≤ 0.1 ms	≤ 0.1 ms/≤ 0.1 ms
-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C	-25...+85 °C
IP 67	IP 67	IP 67	IP 67	IP 67
CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus
PA12	PA12	PA12	PA12	PA12
0.5 m PUR cable with M8 connector, 4-pin	0.3 m PUR cable with M8 connector, 4-pin	0.3 m PUR cable with M12 connector, 4-pin	0.3 m PUR cable with M12 connector, 4-pin	2 m PUR cable, 3x0.1 mm²
Can be installed from above	Can be installed from above	Can be installed from above	Can be installed from above	Can be installed from above
┐ T-slot	┐ T-slot	┐ T-slot	┐ T-slot	┐ T-slot



Magnetic Global Cylinder Sensors in Compact Design
BMF 204
BMF 214
BMF 243
BMF 235





Accessories

Accessories – a partial listing
from our extensive product line

Fitting accessories are the optimal peripherals for sensors:
We provide reliable products for time and cost-saving
integration into your automation system and for reliable
operation. We have put together a selection for you from our
comprehensive product line.



Accessories

Contents

Accessories	
M8 Connectors	80
M12 Connectors	81
Valve Connectors	82
Passive Splitters	86
Power Supplies	88
Mounting Brackets, Reflectors	96
Mounting Brackets, Mounting Adapters	97
Mounting Brackets, Hose Clamp	98
Mounting Brackets, Mounting Cuffs	99



Connectors

**M8 female straight and right-angle,
3-pin, no LED**

M8, M12
Global

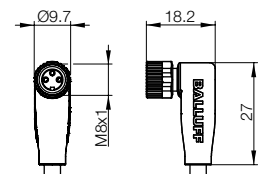
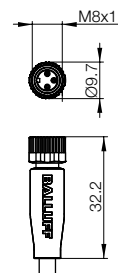
■ Preferred variants
available immediately



Connector diagram and wiring		PIN 1: brown PIN 3: blue PIN 4: black			PIN 1: brown PIN 3: blue PIN 4: black	
Max. supply voltage AC U _s		60 V AC		60 V AC		
Max. supply voltage DC U _s		60 V DC		60 V DC		
Cable		Molded		Molded		
Number of conductors × conductor cross-section		3×0.34 mm ²		3×0.34 mm ²		
Degree of protection as per IEC 60529		IP 67		IP 67		
Ambient temperature T _a	PUR	−25...+90 °C/−25...+90 °C (UL 80 °C)		−25...+90 °C/−25...+90 °C (UL 80 °C)		
Static/moving	PVC	−25...+105 °C/−5...+90 °C (UL 80 °C)		−25...+105 °C/−5...+90 °C (UL 80 °C)		

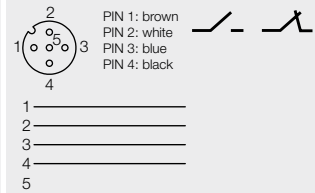
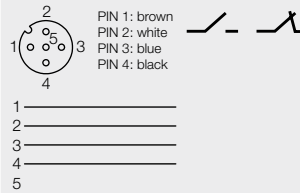
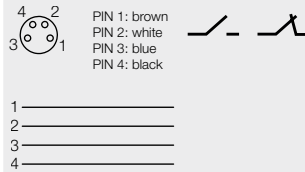
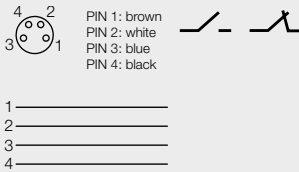
Cable material		Color	Length	Order code		
				Part number		
PVC		gray	2 m	BCC02NU BCC M313-0000-10-001-VX8334-020	BCC02P5 BCC M323-0000-10-001-VX8334-020	
PVC		gray	5 m	BCC02NW BCC M313-0000-10-001-VX8334-050	BCC02P6 BCC M323-0000-10-001-VX8334-050	
PVC		gray	10 m	BCC02NY BCC M313-0000-10-001-VX8334-100	BCC02P7 BCC M323-0000-10-001-VX8334-100	

Other variants on our website or on request.



Connectors

**M8, M12 female straight and right-angle,
4-pin, no LED**



30 V AC
30 V DC
Molded
4x0.34 mm²
IP 67
-25...+90 °C/-25...+90 °C (UL 80 °C)
-25...+105 °C/-5...+90 °C (UL 80 °C)

30 V AC
30 V DC
Molded
4x0.34 mm²
IP 67
-25...+90 °C/-25...+90 °C (UL 80 °C)
-25...+105 °C/-5...+90 °C (UL 80 °C)

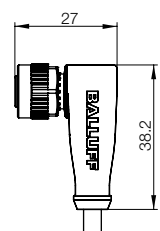
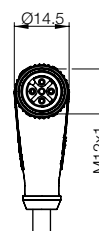
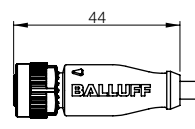
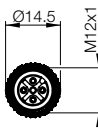
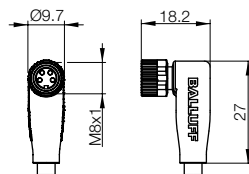
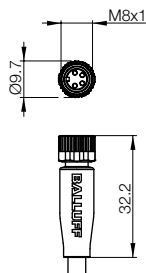
250 V AC
250 V DC
Molded
4x0.34 mm²
IP 68
-40...+90 °C/-25...+90 °C (UL 80 °C)
-40...+105 °C/-5...+105 °C (UL 80 °C)

250 V AC
250 V DC
Molded
4x0.34 mm²
IP 68
-40...+90 °C/-25...+90 °C (UL 80 °C)
-40...+105 °C/-5...+105 °C (UL 80 °C)

Order code

Part number

BCC02PL BCC M314-0000-10-003-VX8434-020	BCC02PZ BCC M324-0000-10-003-VX8434-020	BCC0367 BCC M415-0000-1A-003-VX8434-020	BCC036N BCC M425-0000-1A-003-VX8434-020
BCC02PM BCC M314-0000-10-003-VX8434-050	BCC02R0 BCC M324-0000-10-003-VX8434-050	BCC0368 BCC M415-0000-1A-003-VX8434-050	BCC036P BCC M425-0000-1A-003-VX8434-050
BCC02PN BCC M314-0000-10-003-VX8434-100	BCC02R1 BCC M324-0000-10-003-VX8434-100	BCC0369 BCC M415-0000-1A-003-VX8434-100	BCC036R BCC M425-0000-1A-003-VX8434-100



Accessories

M8 Connectors

M12 Connectors

Valve Connectors

Passive Splitter

Power Supplies

Mounting Brackets,

Reflectors,

Mounting Adapters

Mounting Brackets,

Hose Clamp,

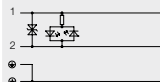
Mounting Cuffs



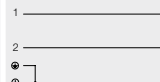
Connector diagram
and wiring



PIN 1: black
PIN 2: blue
PIN PE: green/yellow



PIN 1: black
PIN 2: blue
PIN PE: green/yellow



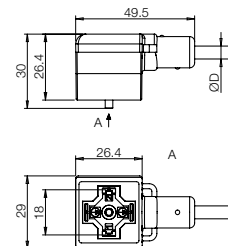
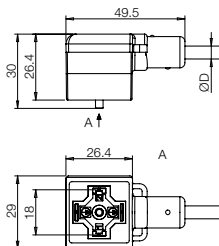
Cable outlet	
Supply voltage AC U_s	
Supply voltage DC U_s	
Cable	
Current rating	
Suppressor	
No. of wires × conductor cross-section	
Degree of protection as per IEC 60529	
Ambient temperature T_a	PUR
static/moving	PVC
LED	

0°/180°
24 V AC
24 V DC
Molded
4.0 A
Suppressor diode
3×0.5 mm ²
IP 67
-25...+90 °C/-25...+80 °C
-25...+105 °C/-25...+105 °C
1× (PNP), yellow

0°/180°
230 V AC
230 V DC
Molded
4.0 A
No
3×0.5 mm ²
IP 67
-25...+90 °C/-25...+80 °C
-25...+105 °C/-25...+105 °C
1× (PNP), yellow

Cable material	Color	Length	Order code	Part number
PVC	Gray	2 m	BCC04W3	BCC04W9
			BCC VA04-0000-10-053-VX8350-020	BCC VA04-0000-10-054-VX8350-020
PVC	Gray	5 m	BCC04W4	BCC04WA
			BCC VA04-0000-10-053-VX8350-050	BCC VA04-0000-10-054-VX8350-050
PVC	Gray	10 m	BCC04W5	BCC04WC
			BCC VA04-0000-10-053-VX8350-100	BCC VA04-0000-10-054-VX8350-100

Other variants on our website or on request.

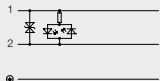


Valve Connectors

Style B, DIN, 10 mm, 3-pin



PIN 1: black
PIN 2: blue
PIN PE: green/yellow

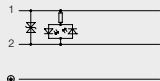


0°

24 V AC
24 V DC
Molded
4.0 A
Suppressor diode
3x0.5 mm²

IP 67
-25...+90 °C/-25...+80 °C
-25...+105 °C/-25...+105 °C
1x (PNP), yellow

PIN 1: black
PIN 2: blue
PIN PE: green/yellow



180°

24 V AC
24 V DC
Molded
4.0 A
Suppressor diode
3x0.5 mm²

IP 67
-25...+90 °C/-25...+80 °C
-25...+105 °C/-25...+105 °C
1x (PNP), yellow

Order code

Part number

BCC03ZZ
BCC VB03-0000-10-055-VX8350-020

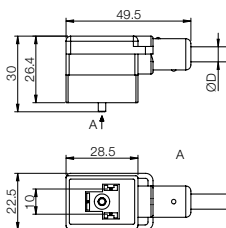
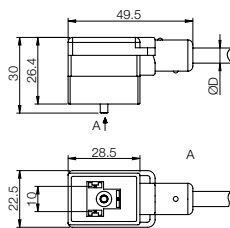
BCC0402
BCC VB23-0000-10-055-VX8350-020

BCC0400
BCC VB03-0000-10-055-VX8350-050

BCC0403
BCC VB23-0000-10-055-VX8350-050

BCC0401
BCC VB03-0000-10-055-VX8350-100

BCC0404
BCC VB23-0000-10-055-VX8350-100



Accessories

M8 Connectors
M12 Connectors

Valve Connectors

Passive Splitter

Power Supplies

Mounting Brackets,
Reflectors,
Mounting Adapters

Mounting Brackets,
Hose Clamp,
Mounting Cuffs

Valve Connectors

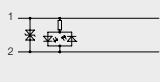
Style B, industry, 11 mm, 3-pin



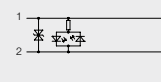
Connector diagram and wiring



PIN 1: black
PIN 2: blue
PIN PE: green/yellow



PIN 1: black
PIN 2: blue
PIN PE: green/yellow



Cable outlet

0°

180°

Supply voltage AC U_s

24 V AC

24 V AC

Supply voltage DC U_s

24 V DC

24 V DC

Cable

Molded

Molded

Current rating

4.0 A

4.0 A

Suppressor

Suppressor diode

Suppressor diode

No. of wires × conductor cross-section

3×0.5 mm²

3×0.5 mm²

Degree of protection as per IEC 60529

IP 67

IP 67

Ambient temperature T_a PUR

−25...+90 °C/−25...+80 °C

−25...+90 °C/−25...+80 °C

static/moving PVC

−25...+105 °C/−25...+105 °C

−25...+105 °C/−25...+105 °C

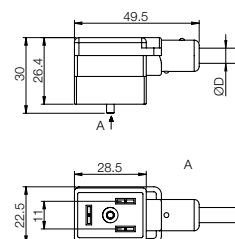
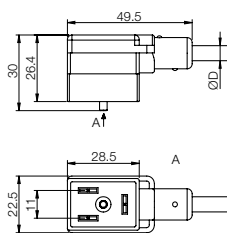
LED

1× (PNP), yellow

1× (PNP), yellow

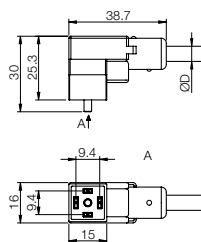
Cable material	Color	Length	Order code	
			Part number	
PVC	Gray	2 m	BCC0405 BCC VB43-0000-10-055-VX8350-020	BCC0408 BCC VB63-0000-10-055-VX8350-020
PVC	Gray	5 m	BCC0406 BCC VB43-0000-10-055-VX8350-050	BCC0409 BCC VB63-0000-10-055-VX8350-050
PVC	Gray	10 m	BCC0407 BCC VB43-0000-10-055-VX8350-100	BCC040A BCC VB63-0000-10-055-VX8350-100

Other variants on our website or on request.





BCC VC44-0000-10-053-VX8350-100

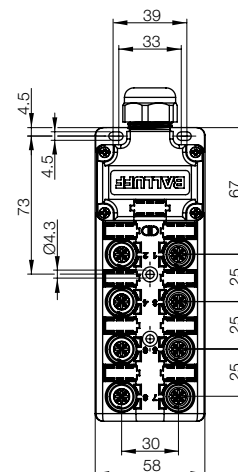
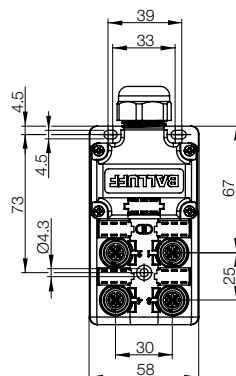




■ Preferred variants
available immediately

Description	4-way, M12 with LEDs	8-way, M12 with LEDs
Order code	BPI007K	BPI007H
Part number	BPI 4M4A5P-2K-00-TPSG	BPI 8M4A5P-2K-00-TPSN
Rated operating voltage U_e	24 V DC	24 V DC
Supply voltage U_s	10...30 V DC	10...30 V DC
Function indicator	Yes	Yes
Power-on indicator	Green LED	Green LED
Sensor connection	5-pin female, M12×1	5-pin female, M12×1
Controller connection	Cap connection without cable	Cap connection without cable
Number of sockets	4	8
Current load capacity	2 A	2 A
Total current	6 A	6 A
Housing material	PBT, GF, fully potted	PBT, GF, fully potted
Degree of protection as per IEC 60529	IP 67 (when screwed into place)	IP 67 (when screwed into place)
Ambient temperature T_a	-25...+80 °C	-25...+80 °C
Use	PNP normally open/normally closed (NO/NC) — / —	PNP normally open/normally closed (NO/NC) — / —
Recommended connector - port	BCC M415...	BCC M415...

Other variants on our website or on request.



Passive Splitters BPI, 5-pin



■ Preferred variants
available immediately

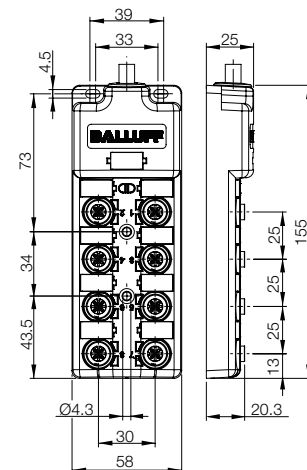
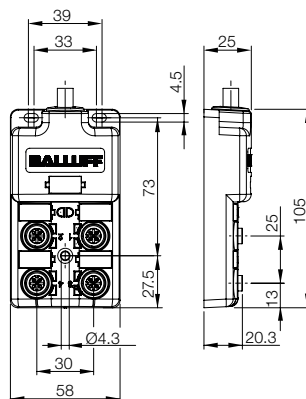
Description	4-way, M12 with LEDs	  	8-way, M12 with LEDs	  
Rated operating voltage U_e	24 V DC		24 V DC	
Supply voltage U_B	10...30 V DC		10...30 V DC	
Function indicator	Yes		Yes	
Power-on indicator	Green LED		Green LED	
Sensor connection	5-pin female, M12×1		5-pin female, M12×1	
Controller connection	Fixed cable		Fixed cable	
Number of sockets	4		8	
Current load capacity	2 A		2 A	
Total current	8 A		8 A	
Housing material	PBT, GF		PBT, GF	
Degree of protection as per IEC 60529	IP 67 (when connected)		IP 67 (when connected)	
Ambient temperature T_a	-25...+80 °C		-25...+80 °C	

Cable material	Order code	
	Part number	
PUR	BPI009W BPI 4M4A5P-2K-B0-KPXB0-030	BPI0098 BPI 8M4A5P-2K-B0-KPXL0-030
PUR	BPI009Y BPI 4M4A5P-2K-B0-KPXB0-050	BPI0099 BPI 8M4A5P-2K-B0-KPXL0-050
PUR	BPI009Z BPI 4M4A5P-2K-B0-KPXB0-100	BPI009A BPI 8M4A5P-2K-B0-KPXL0-100
PUR	BPI00A0 BPI 4M4A5P-2K-B0-KPXB0-150	BPI009C BPI 8M4A5P-2K-B0-KPXL0-150

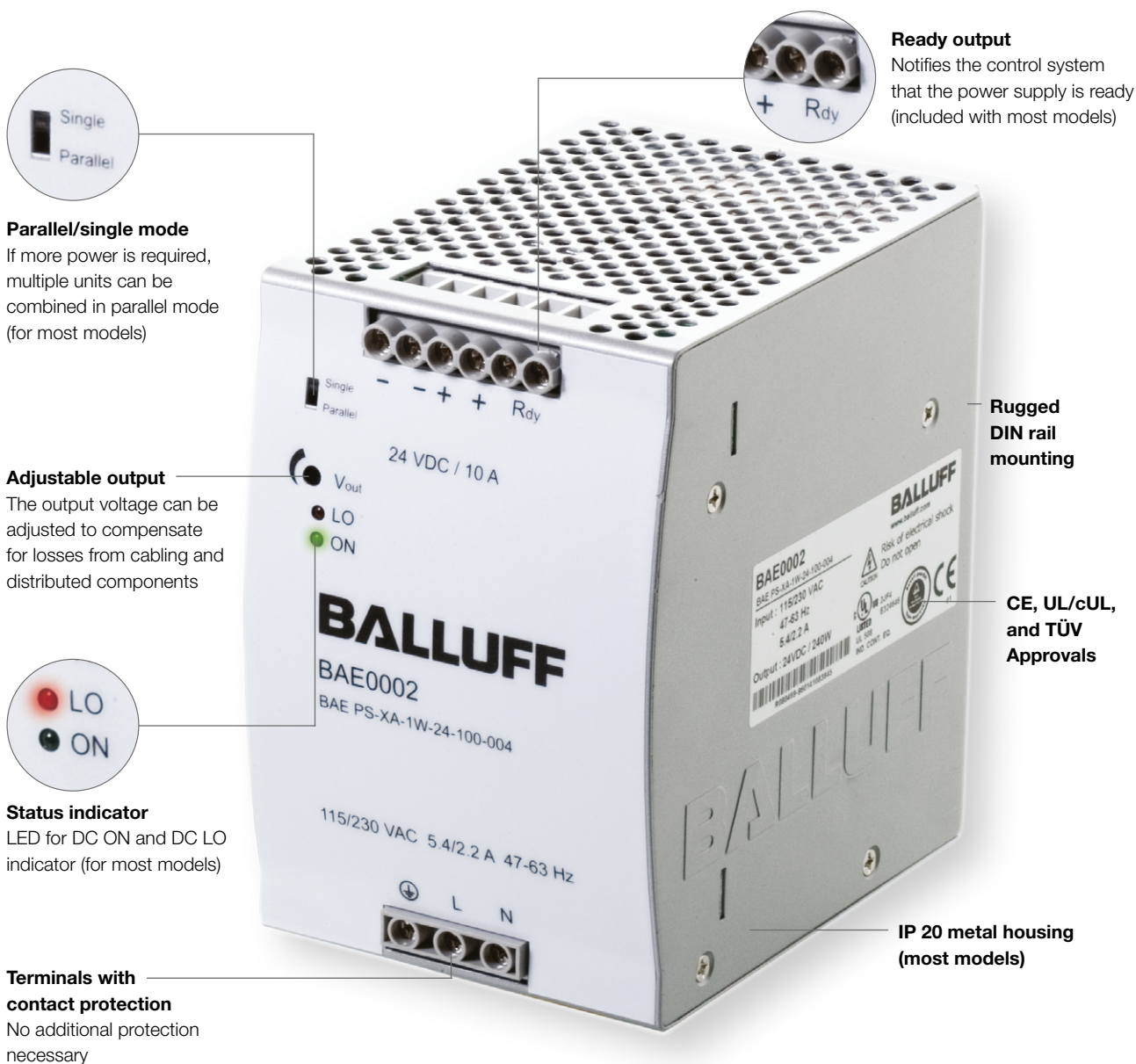
Accessories

M8 Connectors
M12 Connectors
Valve Connectors
Passive Splitter
Power Supplies
Mounting Brackets,
Reflectors,
Mounting Adapters
Mounting Brackets,
Hose Clamp,
Mounting Cuffs

Other variants on our website or on request.



- **Ultra-reliable power supplies**
 for protecting sensitive control electronics
- **Protection against unforeseen events**
 Integrated overload and overvoltage protection
- **Wide selection of models**
 Individual devices or individually combinations of different models available
- **Clean, precise power supply for particularly demanding systems**
 Load regulation $\pm 1\%$ for all models, ripple and noise under 50 mV for most models
- **Long service life for less system downtime**
 MTBF (Mean Time Between Failure) up to 800,000 hours/
 91 years



Power Supplies

Standard units

Power for controllers and networks

Specially designed for control devices, Balluff power supplies are easily integrated into your control package and offer extra security.

The PS series of ultra-reliable power supply units is available in a wide range of 12, 24, and 48 V DC models with single or 3-phase input. With a bandwidth of 18 W to 960 W, they truly leave nothing to be desired. If you need even more power, simply connect multiple power supplies together in parallel (parallel mode).

If you need different voltages, simply contact us.



Output voltage (24 V DC)								Features				Product information	
0.75 A/18 W	1.25 A/30 W	2.5 A/60 W	3.8 A/91.20 W	5 A/120 W	10 A/240 W	20 A/480 W	40 A/960 W	Input voltage	Housing material	Parallel mode	Ready output	Order code	Part number
■								Single-phase ¹	Plastic			BAE0001	BAE-PS-XA-1W-24-007-001
	■							Single-phase ¹	Plastic		■	BAE0004	BAE-PS-XA-1W-24-012-002
		■						Single-phase ¹	Plastic		■	BAE0005	BAE-PS-XA-1W-24-025-002
			■					Single-phase ²	Metal	■	■	BAE003J	BAE-PS-XA-1W-24-038-003
				■				Single-phase ²	Metal	■	■	BAE0006	BAE-PS-XA-1W-24-050-003
					■			Single-phase ²	Metal	■	■	BAE0002	BAE-PS-XA-1W-24-100-004
						■		Single-phase ²	Metal	■	■	BAE0003	BAE-PS-XA-1W-24-200-005
				■				3-phase ³	Metal		■	BAE0007	BAE-PS-XA-3Y-24-050-009
					■			3-phase ³	Metal	■	■	BAE0008	BAE-PS-XA-3Y-24-100-006
						■		3-phase ³	Metal	■	■	BAE0009	BAE-PS-XA-3Y-24-200-007
							■	3-phase ³	Metal	■	■	BAE003R	BAE-PS-XA-3Y-24-400-010

¹ = 100...240 V AC

² = 115/230 V AC (Auto-Select)

³ = 340...575 V AC

Power Supplies

Single-phase input voltage

0.75 A, 1.25 A

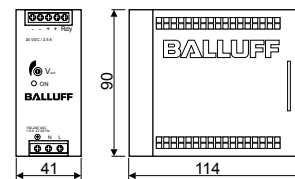
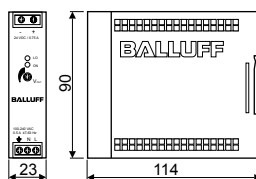


■ Preferred variants
available immediately



Output current	0.75 A	1.25 A	
Output power	18 W	30 W	
Output voltage	24 V DC (SELV)	24 V DC (SELV)	
Input voltage	100...240 V AC	100...240 V AC	
Order code	BAE0001	BAE0004	
Part number	BAE PS-XA-1W-24-007-001	BAE PS-XA-1W-24-012-002	
Input voltage range	90...264 V AC/120...375 V DC	85...264 V AC/90...375 V DC	
Frequency range	47...63 Hz	47...63 Hz	
Input fuse	T2 A/250 V AC internal	T2 A/250 V AC internal	
Voltage adjustment range	22.5...28.5 V DC	22.5...28.5 V DC	
Status indicator DC ON	Green LED	Green LED	
Status indicator DC LOW	Red LED		
Efficiency	77 %	86 %	
Response	Hiccup mode	Forward characteristic	
Ambient temperature	-20...+70 °C	-40...+70 °C	
Derating	-2.5%/°C of +61 °C	-2.5%/°C of +61 °C	
Degree of protection as per IEC 60529	IP 20	IP 20	
Ready output	No	DC OK output	
Cooling	Free convection	Free convection	
Approvals	CE, UL/cUL, TÜV	CE, UL/cUL, TÜV	
Wiring diagram			

*SELV = Safety Extra Low Voltage



Power Supplies

Single-phase input voltage 2.5 A, 3.8 A, 5 A



2.5 A	3.8 A	5 A
60 W	91.20 W	120 W
24 V DC (SELV)	24 V DC (SELV)	24 V DC (SELV)
100...240 V AC	115/230 V AC (Auto-Select)	115/230 V AC (Auto-Select)
BAE0005	BAE003J	BAE0006
BAE PS-XA-1W-24-025-002	BAE PS-XA-1W-24-038-003	BAE PS-XA-1W-24-050-003
85...264 V AC/90...375 V DC	90...132 V AC; 180...264 V AC/210...375 V DC	90...132 V AC; 180...264 V AC/210...375 V DC
47...63 Hz	47...63 Hz	47...63 Hz
T2 A/250 V AC internal	T3.15 A/250 V AC internal	T3.15 A/250 V AC internal
22.5...28.5 V DC	22.5...24.5 V DC	22.5...28.5 V DC
Green LED	Green LED	Green LED
	Red LED	Red LED
89 %	86 %	86 %
Forward characteristic	Forward characteristic	Forward characteristic
-40...+70 °C	-35...+70 °C	-35...+70 °C
-2.5%/°C of +61 °C	-2.5%/°C of +61 °C	-2.5%/°C of +61 °C
IP 20	IP 20	IP 20
DC OK output	DC OK output relay	DC OK output relay
Free convection	Free convection	Free convection
CE, UL/cUL, TÜV	CE, UL/cUL, TÜV, ODVA	CE, UL/cUL, TÜV

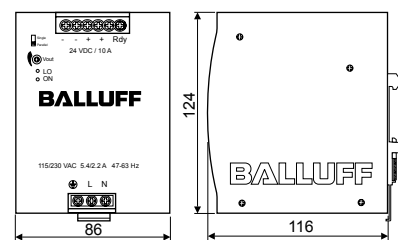
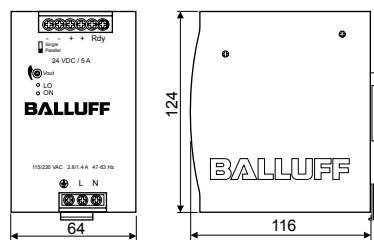
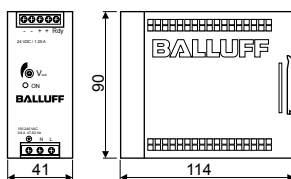


Accessories

M8 Connectors
M12 Connectors
Valve Connectors
Passive Splitter

Power Supplies

Mounting Brackets,
Reflectors,
Mounting Adapters
Mounting Brackets,
Hose Clamp,
Mounting Cuffs



Power Supplies

Single-phase input voltage

10 A, 20 A

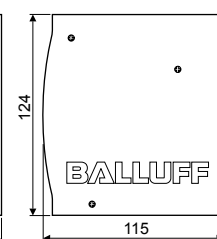
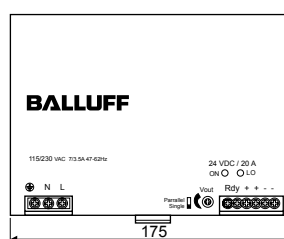
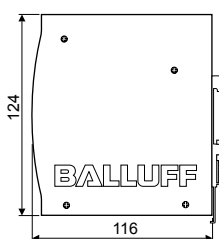
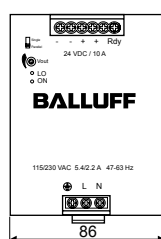


■ Preferred variants
available immediately



Output current	10 A	20 A	
Output power	240 W	480 W	
Output voltage	24 V DC (SELV)	24 V DC (SELV)	
Input voltage	115/230 V AC (Auto-Select)	115/230 V AC (Auto-Select)	
Order code	BAE0002	BAE0003	
Part number	BAE PS-XA-1W-24-100-004	BAE PS-XA-1W-24-200-005	
Input voltage range	90...132 V AC; 180...264 V AC/210...375 V DC	90...264 V AC/120...370 V DC	
Frequency range	47...63 Hz	47...63 Hz	
Input fuse	T6.3 A/250 V AC internal	T10 A/250 V AC internal	
Voltage adjustment range	22.5...28.5 V DC	22.5...28.5 V DC	
Status indicator DC ON	Green LED	Green LED	
Status indicator DC LOW	Red LED	Red LED	
Efficiency	89 %	89 %	
Response	Forward characteristic	Forward characteristic	
Ambient temperature	-40...+70 °C	-40...+70 °C	
Derating	-2.5%/°C of +61 °C	-2.5%/°C of +56 °C	
Degree of protection as per IEC 60529	IP 20	IP 20	
Ready output	DC OK output relay	DC OK output relay	
Cooling	Free convection	Free convection	
Approvals	CE, UL/cUL, TÜV	CE, UL/cUL, TÜV	
Wiring diagram			

*SELV = Safety Extra Low Voltage



Power Supplies

3-phase input voltage

5 A, 10 A



5 A
120 W
24 V DC (SELV)
3× 400...500 V AC

BAE0007

BAE PS-XA-3Y-24-050-009

340...575 V AC/480...820 V DC

47...63 Hz

2 A/600 V AC internal/phase

22.5...28.5 V DC

Green LED

Red LED

89 %

Hiccup mode

-40...+70 °C

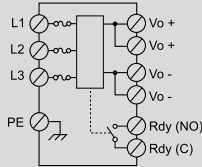
-2.5%/°C of +61 °C

IP 20

DC OK output relay

Free convection

CE, UL/cUL, TÜV



10 A
240 W
24 V DC (SELV)
3× 400...500 V AC

BAE0008

BAE PS-XA-3Y-24-100-006

340...575 V AC/480...820 V DC

47...63 Hz

T2 A/600 V AC internal/phase

22.5...28.5 V DC

Green LED

Red LED

90 %

Hiccup mode

-40...+70 °C

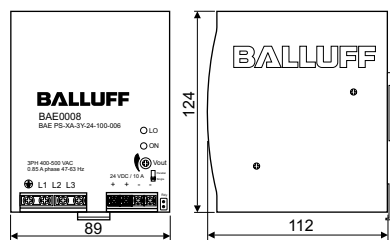
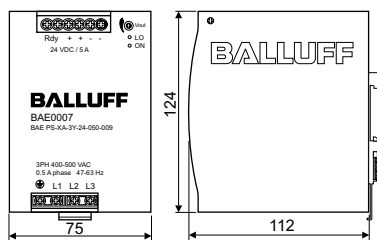
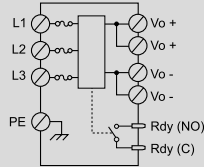
-2.5%/°C of +61 °C

IP 20

DC OK output relay

Free convection

CE, UL/cUL, TÜV



Accessories

M8 Connectors

M12 Connectors

Valve Connectors

Passive Splitter

Power Supplies

Mounting Brackets,

Reflectors,

Mounting Adapters

Mounting Brackets,

Hose Clamp,

Mounting Cuffs

Power Supplies
3-phase input voltage
20 A, 40 A

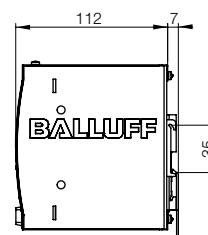
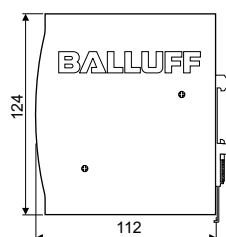
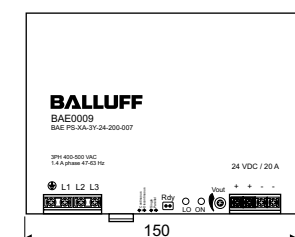


■ Preferred variants
available immediately



Output current	20 A	40 A
Output power	480 W	960 W
Output voltage	24 V DC (SELV)	24 V DC (SELV)
Input voltage	3× 400...500 V AC	3× 400...500 V AC
Order code	BAE0009	BAE003R
Part number	BAE PS-XA-3Y-24-200-007	BAE PS-XA-3Y-24-400-010
Input voltage range	340...575 V AC/480...820 V DC	340...575 V AC/480...820 V DC
Frequency range	47...63 Hz	47...63 Hz
Input fuse	3.15 A/500 V AC internal/phase	T5 A/500 V AC internal/phase
Voltage adjustment range	22.5...28.5 V DC	22.5...28.5 V DC
Status indicator DC ON	Green LED	Green LED
Status indicator DC LOW	Red LED	Red LED
Efficiency	90 %	92 %
Response	Forward characteristic (C), restart after 30 s (D), Shutoff within 3 s, (C)/(D) toggleable	Hiccup mode
Ambient temperature	-30...+70 °C	-40...+70 °C
Derating	-2.5%/°C of +61 °C	-3.5%/°C above +61 °C
Degree of protection as per IEC 60529	IP 20	IP 20
Ready output	DC OK output relay	No
Cooling	Free convection	Free convection
Approvals	CE, UL/cUL, TÜV	CE, UL/cUL, TÜV
Wiring diagram		

*SELV =
Safety Extra
Low Voltage



Power Supplies



Accessories

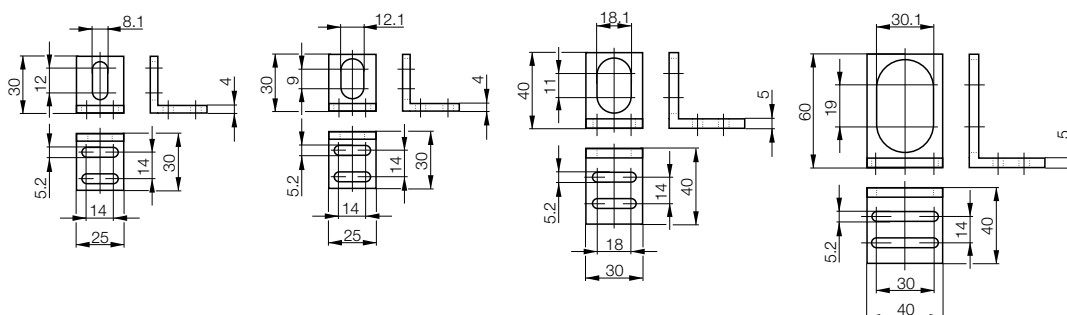
M8 Connectors
M12 Connectors
Valve Connectors
Passive Splitter

Power Supplies

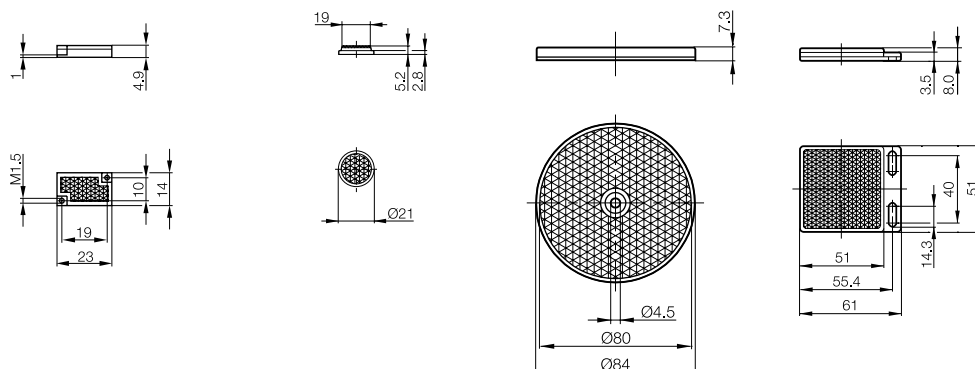
Mounting Brackets,
Reflectors,
Mounting Adapters
Mounting Brackets,
Hose Clamp,
Mounting Cuffs



Description	Mounting bracket	Mounting bracket	Mounting bracket	Mounting bracket	
Use	For sensors and clamps M8	For sensors and clamps M12	for M18 sensors	for M30 sensors	
Order code	BAM009U	BAM00C0	BAM00EY	BAM00HH	
Part number	BES 08,0-HW-1	BES 12,0-HW-1	BES 18,0-HW-1	BES 30,0-HW-1	
Material	Anodized aluminum	Anodized aluminum	Anodized aluminum	Anodized aluminum	



Description	Reflector 14×23 mm	Reflector Ø 21 mm	Reflector Ø 84 mm	Reflector 51×61 mm
Fastener	Two M1.5 screws	Glue	M4 screw	two M4 screws
Order code	BAM00UM	BAM00UT	BAM00UK	BAM00WL
Part number	BOS R-12	BOS R-16	BOS R-1	BOS R-9
Material	PMMA/ABS	PMMA/ABS	PMMA/ABS	PMMA/ABS
Triple size	0.9 mm	1.2 mm	4 mm	4 mm
Special features	for laser retroreflective sensors	for laser retroreflective sensors	for Retroreflective sensors	for Retroreflective sensors
Temperature range	-20...+60 °C	-20...+60 °C	-20...+60 °C	-20...+60 °C

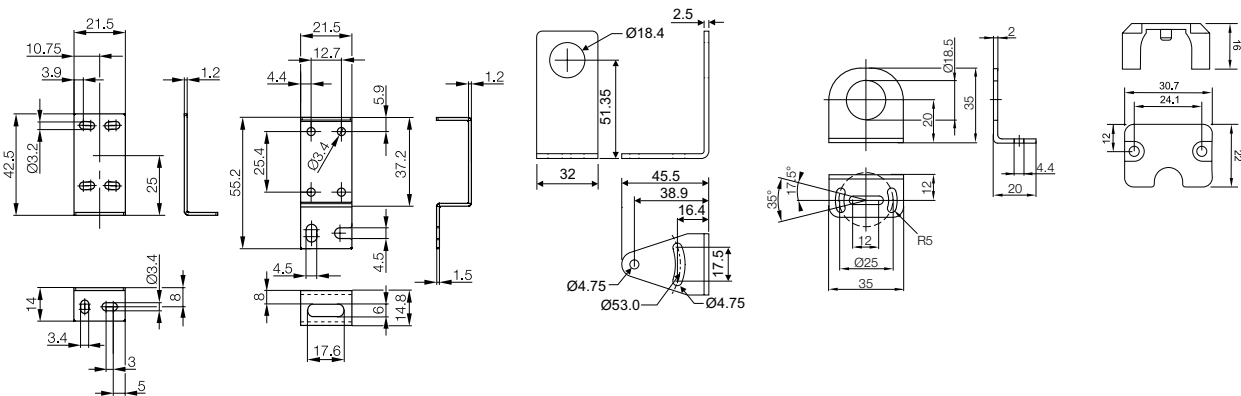


Accessories

Mounting brackets, mounting adapters



Mounting bracket for BOS 5K	Mounting bracket for BOS 5K	Small L bracket Two M3 screws	Mounting bracket for BOS 18	Mounting adapters for BOS 18KF/KW
BAM00U5 BOS 5-HW-1	BAM00U6 BOS 5-HW-2	BAM00PT BOS 11-HW-1	BAM00RY BOS 18,0-HW-1	BAM00RW BOS 18,0-BS-3
Stainless steel	Stainless steel	Stainless steel	Stainless steel	Durethan



Accessories

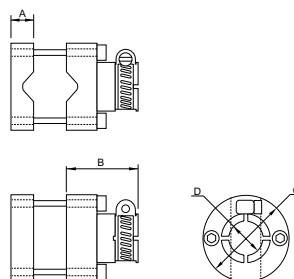
M8 Connectors
M12 Connectors
Valve Connectors
Passive Splitter
Power Supplies

Mounting Brackets, Reflectors, Mounting Adapters

Mounting Brackets,
Hose Clamp,
Mounting Cuffs

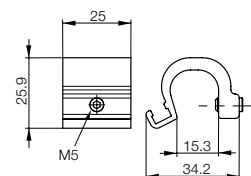
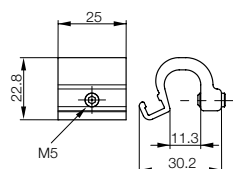


Description	Mounting brackets for M12 sensors	Mounting brackets for M18 sensors	Mounting brackets for M30 sensors
Use	for M12 sensors	for M18 sensors	for M30 sensors
Order code	BAM015E	BAM015F	BAM015H
Part number	BCSA-SG-12-D	BCSA-SG-18-D	BCSA-SG-30-D
Size	A 10.5 mm B 29.5 mm C 38.1 mm D 12.1 mm	11.7 mm 38.1 mm 45.0 mm 18.1 mm	19.1 mm 67.8 mm 69.9 mm 30.1 mm
Diameter	9.4...20.6 mm	9.4...20.6 mm	25.4...44.5 mm





			
Mounting bracket for Slot	BMF 235	BMF 235	
	 Profile/tie rod	 Profile/tie rod	
Order code	BAM01M9	BAM01MA	
Part number	BMF 235-HW-109	BMF 235-HW-110	
Cylinder type, for example	For profile/tie rod cylinders 5...11 mm in conjunction with T-slot holder, for example BAM00L2	For profile/tie rod cylinders 9...15 mm in conjunction with T-slot holder, for example BAM00L2	



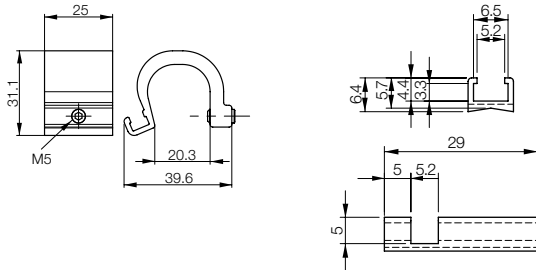
Piston diameter	Hose clamp BMF size_ for BMF 235	
≤ 8 mm	0	BAM00N2
8...10 mm	1	BAM00N3
12 mm	1	
16 mm	1	
20 mm	2	BAM00N4
25 mm	2	
32 mm	3	BAM00N5
40 mm	4	BAM00N6
50 mm	5	BAM00N7
63 mm	6	BAM00N8
70 mm	8	BAM00N9
80 mm	7	BAM00NA
90 mm	10	BAM01TC
100 mm	9	BAM01F4

Accessories

Mounting brackets, mounting cuffs



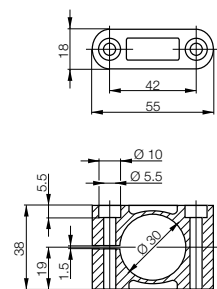
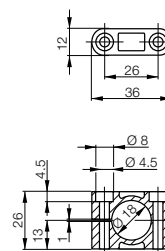
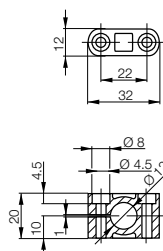
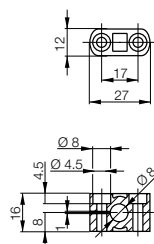
BMF 235	BMF 235		
 Profile/tie rod			
BAM01MC BMF 235-HW-111	BAM01Y9 BMF 307-HW-112		
For profile/tie rod cylinders 14...20 mm in conjunction with T-slot holder, for example BAM00L2	Piston diameter < 8...110 mm pneumatic cylinder, round without slot or tie rod		



Accessories
M8 Connectors
M12 Connectors
Valve Connectors
Passive Splitter
Power Supplies
Mounting Brackets,
Reflectors,
Mounting Adapters
**Mounting Brackets,
Hose Clamp,
Mounting Cuffs**

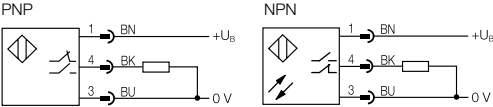


Description	Mounting cuff	Mounting cuff	Mounting cuff	Mounting cuff
Use	Ø 8 mm	Ø 12 mm	Ø 18 mm	Ø 30 mm
Order code	BAM00A2	BAM00C4	BAM00F2	BAM00HN
Part number	BES 08,0-BS-1	BES 12,0-BS-1	BES 18,0-BS-1	BES 30,0-BS-1
Material	PA 6	PA 6	PA 6	PA 6

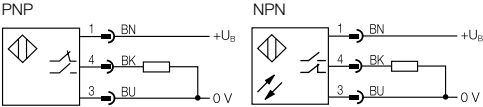


Photoelectric
Wiring diagram

Fork sensors BGL



Angle sensors BWL



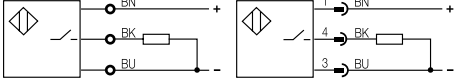
Inductive (BES)
Wiring diagrams

DC 3/4 wire
Normally open

Cable/terminals

Male

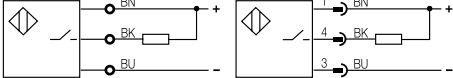
PNP (+) sourcing



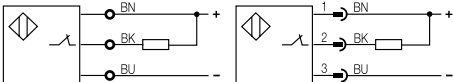
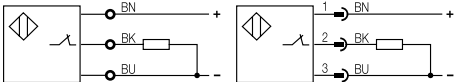
Cable/terminals

Male

NPN (-) sinking

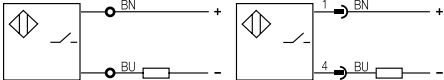


Normally closed

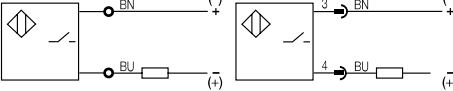


DC 2-wire
Normally open

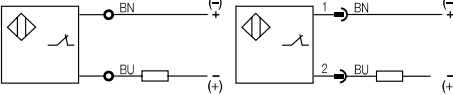
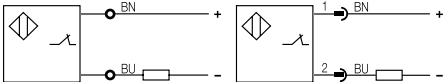
polarized



non-polarized



Normally closed



Correction factors

The correction factor indicates the reduction of the switching distance in damping materials which deviate from Fe 360.

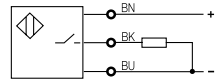
Material	Factor
Steel	1.0
Copper	0.25...0.45
Brass	0.35...0.50
Aluminum	0.30...0.45
Stainless steel	0.60...1.00
Nickel	0.65...0.75
Cast iron	0.93...1.05

Further and additional information can be found on our website.

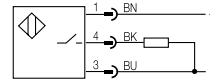
**Capacitive (BCS)
Wiring diagrams**

DC 3/4 wire

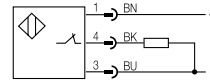
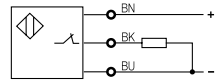
Normally open



Male

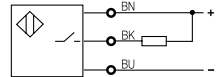


Normally closed

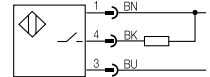


**NPN (-) sinking
Cable/terminals**

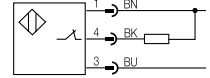
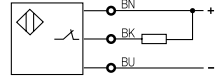
Normally open



Male

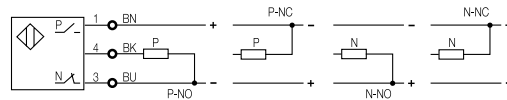


Normally closed



PNP/NPN selectable

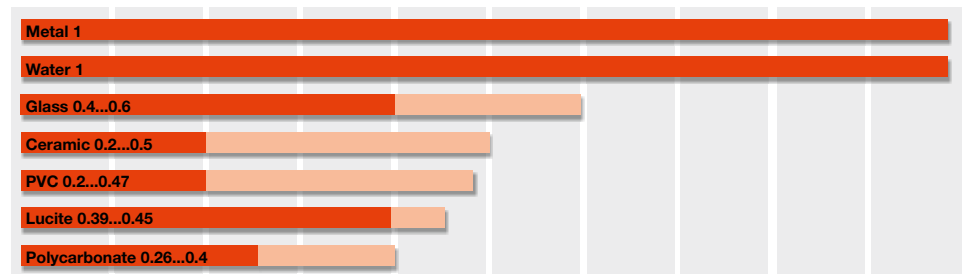
NO/NC
selectable



**Operating conditions
and correction factors**

If an electrically non-conducting actuation element (target) enters the sensor field, the capacitance changes proportionally to ϵ_r and to the immersion depth or to the distance to the sensing surface. As the rated switching distance s_n based on a grounded standard target made of Fe 360, the switching distances must be corrected when using other materials.

Correction factors for typical materials

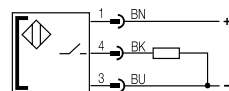


Correction factors should be determined using the target material directly.

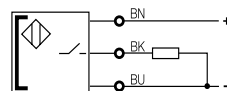
**Magnetic (BMF)
Wiring diagrams**

Normally open

PNP/cable

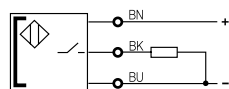


PNP/connector

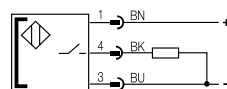


Normally open

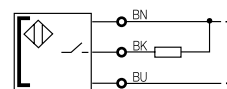
PNP/cable



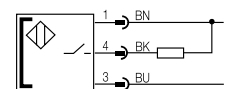
PNP/connector



NPN/cable

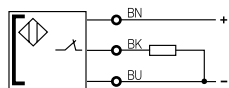


NPN/connector

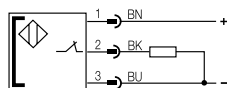


Normally closed

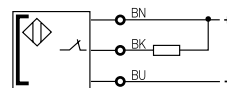
PNP/cable



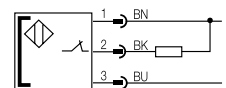
PNP/connector



NPN/cable

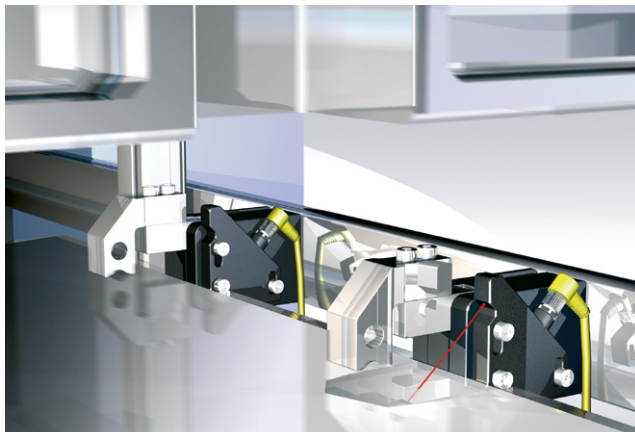


NPN/connector

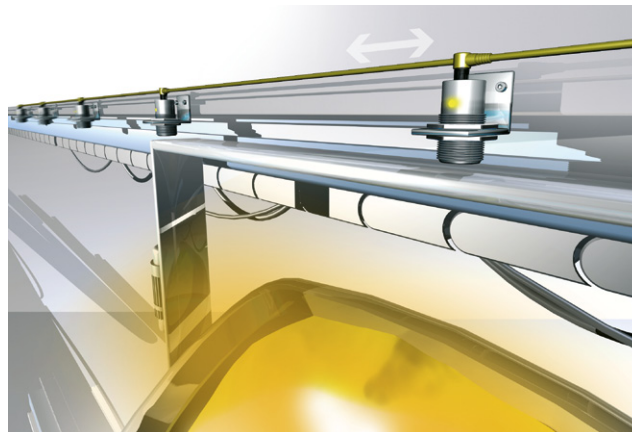


Global sensors

Quality at a fair price – for your standard application



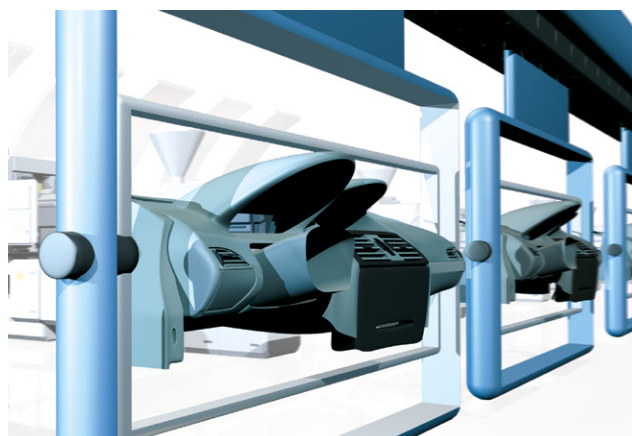
Angle sensors enable reliable position detection.



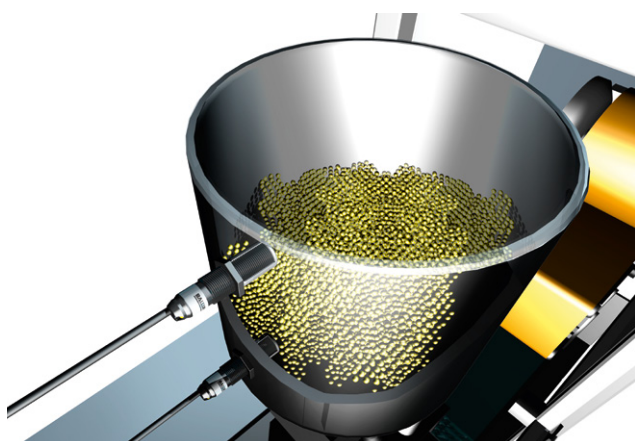
Inductive sensors detect positions reliably.



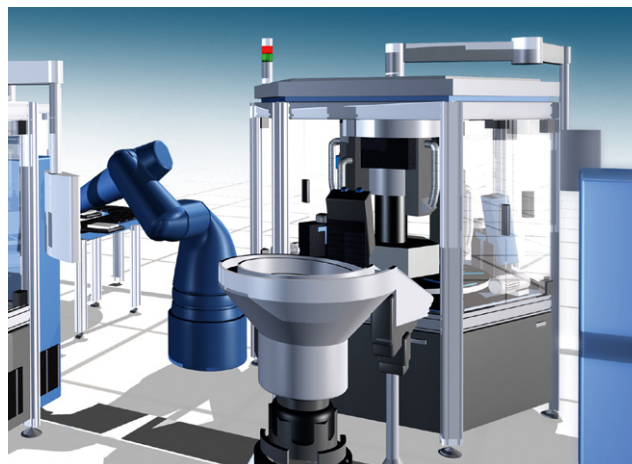
Whether at the injection molding machine or for assembly and automation, different sensor technologies control the material feed precisely.



The harmonious interaction between various sensors ensures optimal process in component production.



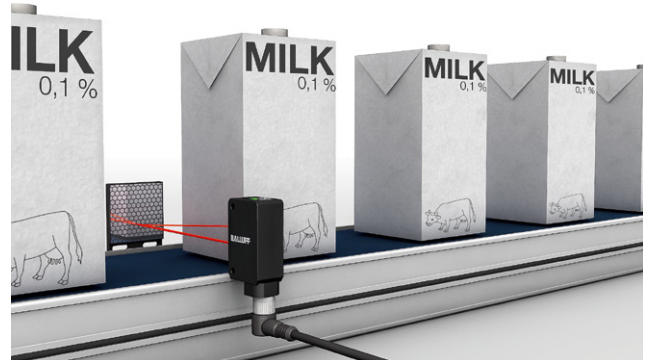
Capacitive sensors guarantee correct level detection.



Photoelectric sensors optimize positioning tasks.



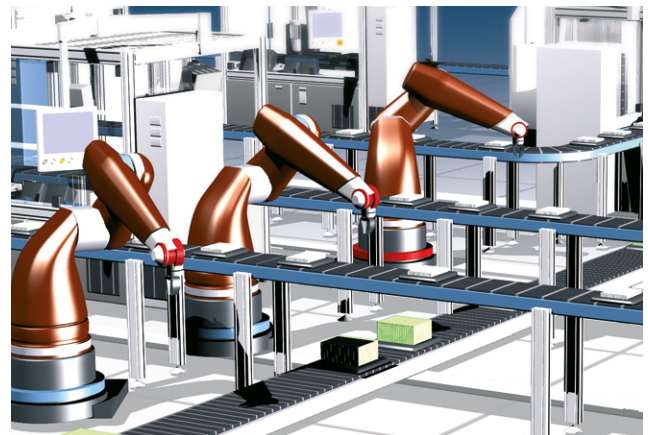
Multiple sensors support the correct process in tire production.



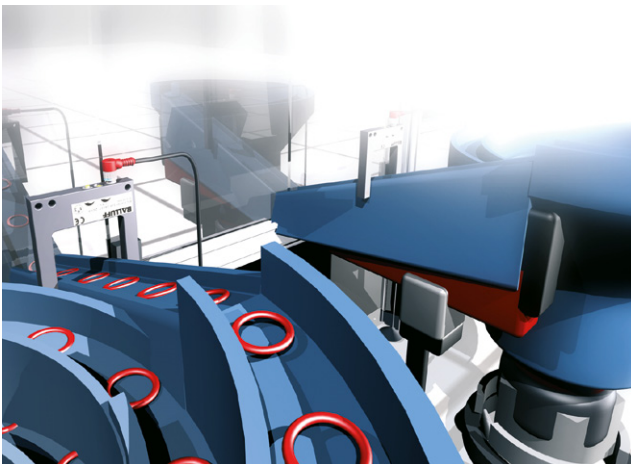
Sensors check packaging with reliability.



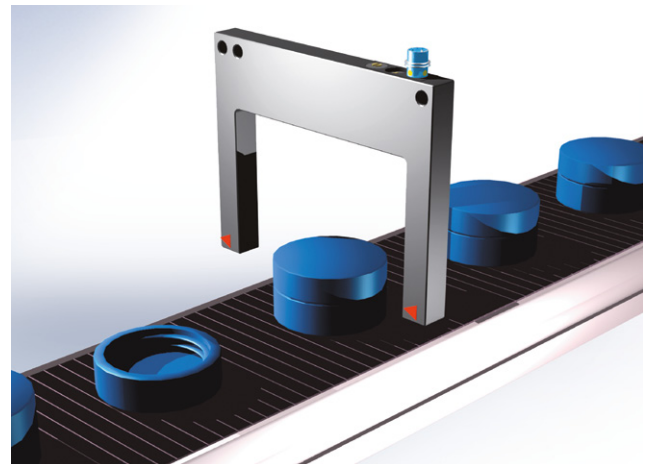
Reliable sensors carry out frequent format changes, for example, when cartoning, in a flexible manner.



Different sensors are perfectly tuned to take over the handling and assembly tasks of robotics.



Fork sensors provide the visual information you need at vibrating conveyors and part separators.



Fork sensors are easy to operate. Receivers and emitters in a single housing guarantee an easy installation.

Worldwide Sales

Headquarters

Germany

Balluff GmbH
Schurwaldstrasse 9
73765 Neuhausen a.d.F.
Phone +49 7158 173-0
Fax +49 7158 5010
balluff@balluff.de

Subsidiaries and Representatives

Argentina

Balluff Argentina S.R.L.
Echeverría 1050, 1st UF 2
1604 Florida Oeste,
Buenos Aires
Phone +54 11 4730-4544
Fax +54 11 4730-3908

Australia

Balluff Pty. Ltd.
Unit 25, 18 Malvern Street
Bayswater VIC 3153
Phone 1300 225 833
Fax 1300 653 894
sales@balluff.com.au

Austria

Balluff GmbH
Industriestraße B16
2345 Brunn am Gebirge
Phone +43 2236 32521-0
Fax +43 2236 32521-46
sensor@balluff.at

Bahrain

Represented through
Multiline Technical Co.,
United Arab Emirates

Belarus

Automaticacentre OOO
Nezavisimosti Av. 185,
Block 19, Office 3
220125 Minsk
Phone +375 17 2838940
Fax +375 17 2181798
info@automatica.by

Belgium

Balluff bvba
Researchpark Haasrode 1820
Interleuvenlaan 62,
3001 Leuven
Phone +32 16 397800
Fax +32 16 397809
info.be@balluff.be

Brazil

Balluff Controles
Elétricos Ltda.
Rua Francisco Foga, 25
Distrito Industrial
CEP 13280.000
Vinhedo – Sao Paulo
Phone +55 19 38769999
Fax +55 19 38769990
balluff@balluff.com.br

Bulgaria

Belopitov AG
41, Nedelcho Bonchev St.
1528 Sofia
Phone +359 2 9609875
Fax +359 2 9609896
bps@bps.bg

Canada

Balluff Canada Inc.
2840 Argentia Road, Unit 2
Mississauga, Ontario L5N 8G4
Phone +1 905 816-1494
Toll-free 1-8 00-927-9654
Fax +1 905 816-1411
balluff.canada@balluff.ca

Chile

Microtec S/A
Salar Ascotan, Parque Enea Pud 1281
Santiago
Phone + 56 2 25954661
soledadrozaz@micro.cl

China

Balluff (Shanghai) Trading Co., Ltd.
8F, Building A, Yunding International
Commercial Plaza,
No. 800 Chengshan Rd,
Pudong, Shanghai, 200125
Phone +86 21 5089 9970
Fax +86 21 5089 9975
info@balluff.com.cn

Colombia

Micro Pneumatic S.A.
Calle 19, No. 70-63
Zona Industrial, Bogotá
Phone +57 1 4050016
hescobar@micro.com.co

Croatia

HSTEC d.d.
Zagrebicka 100
23000 Zadar
Phone +385 23 205-405
Fax +385 23 205-406
info@hstec.hr

Czech Republic

Balluff CZ, s.r.o
Pelušková 1400
198 00 Praha 9 – Kyje
Phone +420 281 000 666
Fax +420 281 940066
obchod@balluff.cz

Denmark

Balluff ApS
Åbogade 15
8200 Århus N
Phone +45 70 234929
Fax +45 70 234930
info.dk@balluff.dk

Ecuador

CAMEI S.A.
Vasco de Contreras
N35-254 y Mañosca
Quito
Phone +593 2 224 2288
Fax +593 2 245 6510
camei@uio.satnet.net

Egypt

EGEC
24 St., 302 Taksym El Kodah-smouha,
First Floor, Department 1
Alexandria
Phone +20 3 4299771
Fax +20 3 4261773
info@egecgroup.com

Finland

Murri Oy
Koukkukatu 1
15700 Lahti
Phone +358 3 8824000
Fax +358 3 8824040
myynti@murri.fi

France

Balluff SAS
5 rue des Vieilles Vignes
Bâtiment A
CS 90406 Croissy Beaubourg
77435 Marne la Vallée Cedex 02
Phone +33 1 64111990
Fax +33 1 64111991
info.fr@balluff.fr

Greece

S. NAZOS S.A.
10 KLM Thessalonikis-Kilkis
P.O. Box 57008
Thessaloniki
Phone +30 2310 462120
Fax +30 2310 474079
parasxos@nazos.gr

Hong Kong

Sensortech Company
No. 43, 18th Street
Hong Lok Yuen,
Tai Po, NT
Phone +852 26510188
Fax +852 26510388
sensortech@netvigator.com

Hungary

Balluff Elektronika Kft.
Pápai út. 55.
8200 Veszprém
Phone +36 88 421808
Fax +36 88 423439
saleshu@balluff.hu

Iceland

Smith & Norland
Nóatúni 4
105 Reykjavík
Phone +354 520 3000
Fax +354 520 3011
olat@smnor.is

India

Balluff India
405 Raikar Chambers
Deonar Village Road,
Govandi, Mumbai 400088
Phone +91 22 25568097
Fax +91 22 25560871
balluff@balluff.co.in

Indonesia

Represented through
Balluff Asia Pte. Ltd.,
Singapore

Ireland

Balluff Ireland Ltd.
Block B, The Crescent Building
Northwood, Santry
Dublin 9
Phone +353 1 8934188
Fax +44 161 2824701
sales.ie@balluff.com

Israel

Ancitech Ltd.
19, Hamashbir St.
Industrial Zone Holon
58853 Holon
Phone +972 3 5568351
Fax +972 3 5569278
tuvia@ancitech.com

Italy

Balluff Automation S.R.L.
Via Morandi 4
10095 Grugliasco, Torino
Phone +39 11 3150711
Fax +39 11 3170140
info.italy@balluff.it

Japan

Balluff Co., Ltd.
Aqua Hakusan Bldg. 9F
1-13-7 Hakusan, Bunkyo-ku,
Tokyo 113-0001
Phone +81 3 3830-0520
Fax +81 3 3830-0519
info.jp@balluff.jp

Kazakhstan

elcos electric control systems
2A, Molodezhniy Str. 3D
Block O., Offices 318-319
050061 Almaty
Phone +7 727 3340536
Fax +7 727 3340539
info@elcos.kz

Kuwait

Represented through
Multiline Technical Co.,
United Arab Emirates

Latvia and Estonia

SIA Interautomatika
Brīvības g. 410
1024 Rīga
Phone +371 67522010
Fax +371 67522007
info@interautomatika.lv

Lithuania

UAB Interautomatika
Kęstučio 47
08127 Vilnius
Phone +370 5 2607810
Fax +370 5 2411464
andrius@interautomatika.lt

Malaysia

Represented through
Balluff Asia Pte. Ltd.,
Singapore

Mexico

Balluff de México S.A. de C.V.
Anillo Vial II Fray Junipero Serra No. 4416
Colonia La Vista Residencial, CP 76232
Delegación Epigmenio González
Querétaro, Qro.
Phone +52 442 2124882
Fax +52 442 2140536
balluff.mexico@balluff.com

Morocco

TAK
Ilot 24B, Lot 24A-2
Tanger Free Zone
90000 Tanger
Phone +212 06 61464946
Fax +212 05 39393269
o.zerhouani@tak.ma

Netherlands

Balluff B.V.
Europalaan 6a
5232 BC 's-Hertogenbosch
Phone +31 73 6579702
Fax +31 73 6579786
info.nl@balluff.nl

New Zealand

Balluff Ltd.
105 Morrin Road
Panmure, Auckland
Phone +63 9 250 1460
Fax +63 9 250 1462
sales@balluff.co.nz

Norway

Primatec as
Lillesandsveien 44
4877 Grimstad
Phone +47 37 258700
Fax +47 37 258710
post@primatec.no

Oman

Represented through
Multiline Technical Co.,
United Arab Emirates

Philippines

Represented through
Balluff Asia Pte. Ltd.,
Singapore

Poland

Balluff Sp. z o.o.
Ul. Muchoborska 16
54-424 Wrocław
Phone +48 71 3384929
Fax +48 71 3384930
balluff@balluff.pl

Portugal

LA2P Lda.
Rua Teófilo Braga, 156 A
Escrit. F – Edifício S. Domingos
Cabeco Do Mouro
2785-122 S. Domingos De Rana
Phone +351 21 4447070
Fax +351 21 4447075
la2p@la2p.pt

Qatar

Represented through
Multiline Technical Co.,
United Arab Emirates

Romania

Balluff Automation SRL
Strada Industriilor Nr. 56.,
Bloc 1, Etaj 1
032901 Bucuresti Sector 3
Phone +40 374 926252
Fax +40 374 097 423
office@balluff.com.ro

Russia

Balluff OOO
M. Kaluzhskaja Street 15
Building 17, Office 500
119071 Moscow
Phone +7 495 78071-94
Fax +7 495 78071-97
balluff@balluff.ru

Saudi Arabia

Represented through
Multiline Technical Co.,
United Arab Emirates

Serbia

ENEL d.o.o.
Ul. Vasilja Pavlovica 10
14000 Valjevo
Phone +381 14 291161
Fax +381 14 244641
enelvaljevo@gmail.com

Singapore

Balluff Asia Pte. Ltd.
18 Sin Ming Lane
#06-41 Midview City,
Singapore 573960
Phone +65 62524384
Fax +65 62529060
balluff@balluff.com.sg

Slovakia

Balluff Slovakia s.r.o.
Blagoevova 9
85104 Bratislava
Phone +421 2 67200062
Fax +421 2 67200060
info@balluff.sk

Slovenia

Senzorji SB d.o.o.,
Proizvodnja,
trgovina in storitve d.o.o.
Livadna ulica 1
2204 Miklavž na Dravskem polju
Phone +386 2 6290300
Fax +386 2 6290302
senzorji.sb@siol.net

South Africa

PAL Distributors CC
291A Pine Avenue, Ferndale
Randburg, Gauteng
Phone +27 11 7814381
Fax +27 11 7818166
pal@polka.co.za

South Korea

Mahani Electric Co. Ltd.
792-7 Yeoksam-Dong
Gangnam-Gu, Seoul
Post code: 135-080
Phone +82 2 21943300
Fax +82 2 21943397
yskim@hanmec.co.kr

Spain

Balluff S.L. (Sociedad Unipersonal)
Edificio Forum SCV
Planta 5º, Oficina 4º
Carretera Sant Cugat a Rubí
Km01, 40-50
08190 Sant Cugat del Vallés
Barcelona
Phone +34 93 5441313
Fax +34 93 5441312
info.es@balluff.es

Sweden

Balluff AB
Gamlestadsvägen 2, B19
41502 Göteborg
Phone +46 31 3408630
Fax +46 31 3409431
info.se@balluff.se

Switzerland

Balluff Sensortechnik AG
Riedstrasse 6
8953 Dietikon
Phone +41 43 3223240
Fax +41 43 3223241
sensorechnik@balluff.ch

Taiwan

Canaan Electric Corp.
6F-5, No. 63 Sec. 2
Chang An East Road
10455 Taipei
Phone +886 22 5082331
Fax +886 22 5084744
sales@canaan-elec.com.tw

Thailand

Compomax Co. Ltd.
16 Soi Ekamai 4,
Sukhumvit 63 Rd.
Prakanongnua, Vadhana,
Bangkok 10110
Phone +66 2 7269595
Fax +66 2 7269800
info@compomax.co.th

Turkey

Balluff Sensor Otomasyon
Sanayi Ve Ticaret Ltd. Sti.
Perpa Ticaret Is Merkezi
A Blok, Kat 1-2-3
No: 0013-0014
34381 Okmeydanı/Istanbul
Phone +90 212 3200411
Fax +90 212 3200416
balluff@balluff.com.tr

Ukraine

Micronlogistik Ltd.
Ul. Promyischlennaya Street 37
65031 Odessa
Phone +380 48 7781278
Fax +380 48 2358760
info@balluff-ua.com

United Arab Emirates

Multiline Technical Co.
TCA, behind ADCB Bank
46530 Abu Dhabi
Phone +971 2 6430733
Fax +971 2 6430778
asif@multilinetech.com

United Kingdom

Balluff Ltd.
20 Cheshire Business Park
Cheshire Avenue
Lostock Gralam
Northwich, CW9 7UA
Phone +44 161 282-4700
Fax +44 161 282-4701
sales@balluff.co.uk

USA

Balluff Inc.
8125 Holton Drive
Florence, KY 41042-0937
Phone +1 859 727-2200,
Toll-free 1-800-543-8390
Fax +1 859 727-4823
balluff@balluff.com

Venezuela

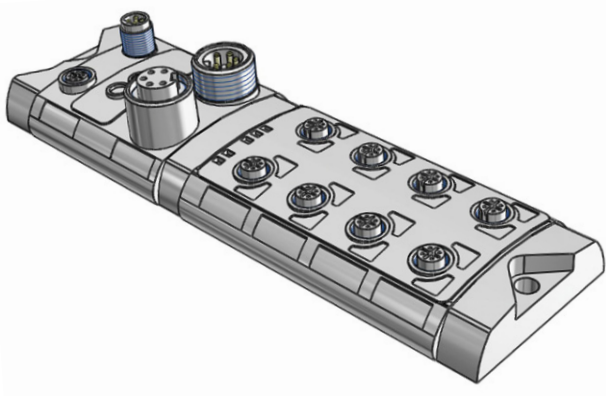
Micro Tecnología Neumatica, C.A.
Av. Henry Ford C.C.
Boulevard Industrial Local AC-2
Valencia Carabobo
Phone +58 241 8641534
Fax +58 241 8641732
iraida.marrero@micro.com.ve

Vietnam

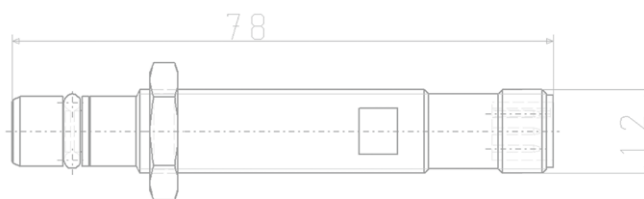
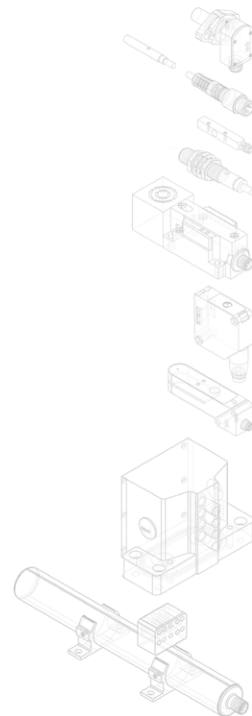
Anh Nghi Son Service Trading Co., Ltd.
D3 KDC Mieu Noi Dinh Tien Hoang St.,
W3, Binh Thanh Dist.,
Ho Chi Minh City
Phone +84 8 35170401
Fax +84 8 35170403
ans.vina@gmail.com



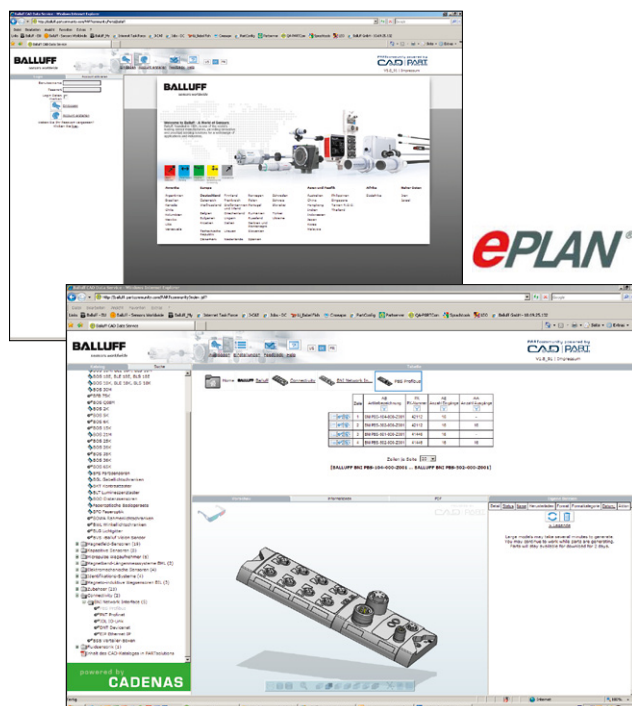
Retrieving CAD and E-Plan formats online



- All catalog products are available: inductive sensors, photoelectric sensors, sensors for pneumatic cylinders, micropulse transducers, industrial RFID systems, vision sensors BVS, mechanical single and multiple position switches, industrial networking and connectivity, and so on.
- Graphics reduced to the essentials for optimized performance



CAD formats on the Cadenas PARTserver



The benefits to you

- Fast, efficient design
- Free availability of all Balluff catalog products
- All common CAD formats
- Convenient preview in 3D
- Configurable products

And here is how it works

- Go to the 3D data at www.balluff.com
- You are redirected to the Cadenas PARTserver
- Select a sensor and perform an optional check via 3D preview
- Add it to the shopping cart
- Once you have entered your details, the CAD files of your choice are sent to you by e-mail

EPLAN macros – Electrical project planning made easy

And now users of EPLAN electrical project planning software can also profit from this free service. On our Web site planners and designers can download macros for selected Balluff products at no charge and implement them in their design. These macros include all the necessary graphics, technical and commercial information for the electrical design and documentation. Benefit from significant time and cost savings.

SENSOR SOLUTIONS AND SYSTEMS

For all areas of the automation industry

As a global player, we stand for comprehensive system expertise, continuous innovation and the greatest reliability. Balluff is technological variety in the highest quality and first-class individual service. Our 2750 employees are working to ensure this worldwide.



Systems and Service | Industrial Networking and Connectivity | Industrial Identification |
Object Detection | Linear Position Sensing and Measurement | Condition Monitoring and Fluid Sensors | Accessories

Phone +49 7158 173-0
www.balluff.com



Systems and Service



Industrial Networking and Connectivity



Industrial Identification



Object Detection



Linear Position Sensing and Measurement



Condition Monitoring and Fluid Sensors



Accessories

Headquarters

Balluff GmbH
Schurwaldstrasse 9
73765 Neuhausen a.d.F.
Germany
Phone +49 7158 173-0
Fax +49 7158 5010
balluff@balluff.de



www.balluff.com

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Proximity Sensors](#) *category:*

Click to view products by [Balluff](#) *manufacturer:*

Other Similar products are found below :

[01.001.5653.1](#) [70.340.1028.0](#) [70.360.2428.0](#) [70.364.4828.0](#) [70.810.1053.0](#) [72.360.1628.0](#) [73.363.6428.0](#) [9221350022](#) [980659-1](#) [QT-12](#)
[E2EX10D1NN](#) [E2E-X14MD1-G](#) [E2E-X2D1-G](#) [E2EX2ME2N](#) [E2E-X3D1-N 10M](#) [E2E-X4MD1-G](#) [E2FMX1R5D12M](#) [E2K-F10MC1 5M](#)
[EI1204TBOSL-6](#) [EI5515NPAP](#) [BSA-08-25-08](#) [IC08ANC15PO-K](#) [IMM2582C](#) [25.161.3253.0](#) [25.332.0653.1](#) [25.352.0653.0](#) [25.352.0753.0](#)
[25.523.3253.0](#) [9151710023](#) [922FS1.5C-A4P-Z774](#) [SC606ABV0S30](#) [SM552A100](#) [SM952A126100LE](#) [A1220EUA-T](#) [F3S-A162-U](#) [CL18](#)
[QT-08L](#) [34.110.0010.0](#) [TL-C2MF1-M3-E4](#) [IA08BLF15NOM5](#) [IA08BSF15NOM5](#) [IA12ASF04DOM1](#) [IMM32188C](#) [IS2](#) [IS31SE5000-](#)
[UTLS2-TR](#) [34.110.0021.0](#) [34.110.0022.0](#) [CA150-120VACDC](#) [VM18VA3000Q](#) [XS508BSCBL2](#)