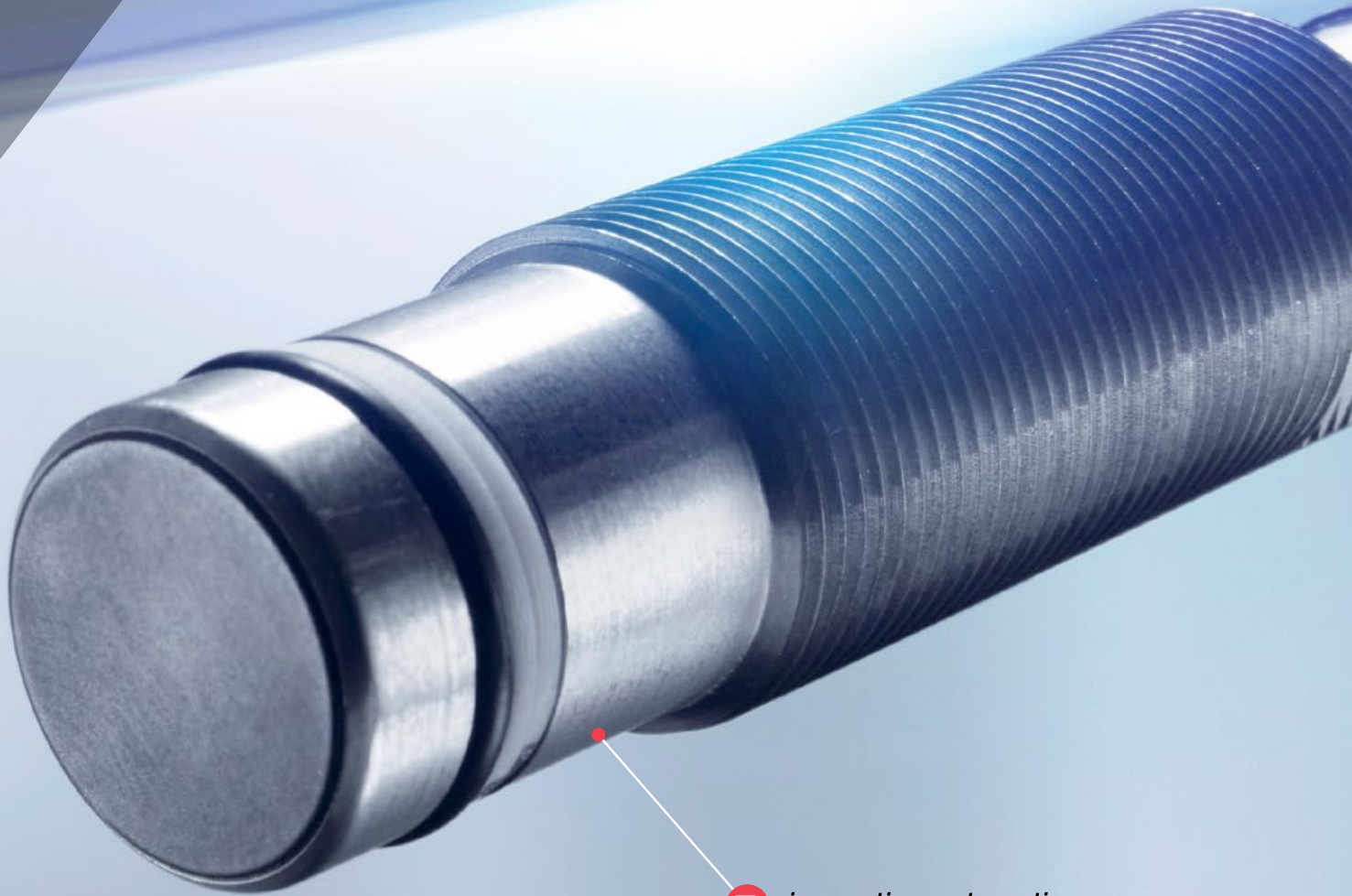


**BALLUFF**

General  
Automation  
Components

**GO TO GLOBAL**



**B** *innovating automation*

## Balluff General Automation Components

# YOUR GUIDE TO THE MOST AVAILABLE PRODUCTS

When looking for standard automation components, machine builders and manufacturers alike need them to be readily available at a competitive price. But as industry moves quickly and demands change, the time to buy can be short. When you need sensors for automation, you need them now. This collection of go-to products from our Global family ensures that you have quick access to innovative technology at a competitive price.

- **Sensing Technologies You Use**

From photoelectrics to inductives, capacitives to cylinder sensors.

- **Accessories You Need**

Every sensor needs a bracket, a cable, and 24VDC power.

- **Quality You Trust**

These automation components are reliable and backed by Balluff's strong warranty.

- **Availability You Rely On**

We are actively managing inventory of these products so you don't have to worry. Rely on our supply chain to reduce your risk and your investment.

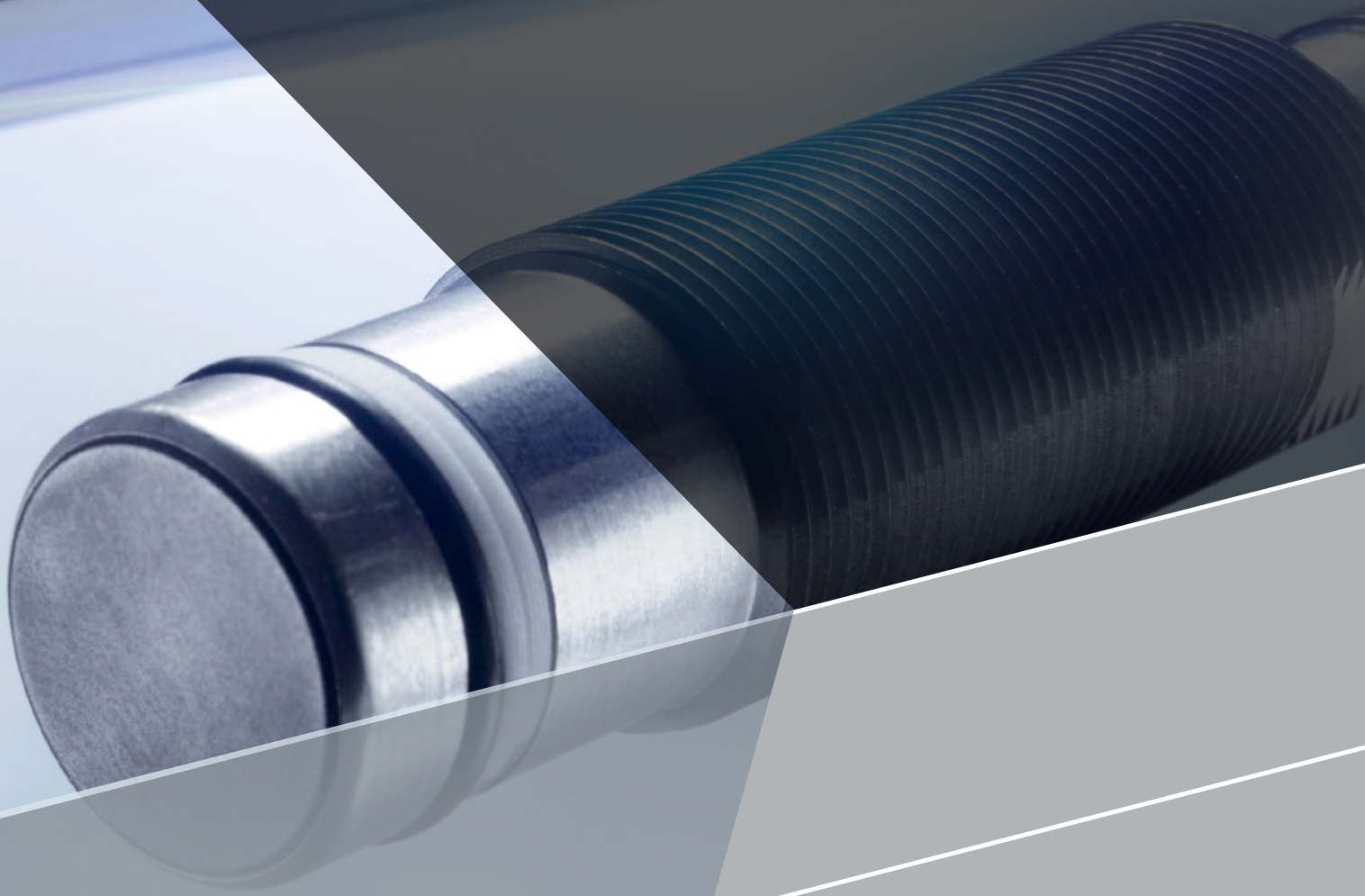
### Stop shopping and get back to making money

You can spend a lot of time researching many different companies to find all the components you need. However, as a strong component and system supplier, Balluff can be your one-stop-shop for sensors, brackets, cables, and power supplies for your automation equipment needs.



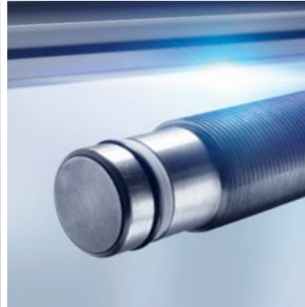






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ABOUT BALLUFF 22

All products are CE UL.  
 

**⚠ WARNING**

- Read, understand, and follow warnings and manual. Failure to do so could result in serious injury or death.
- NEVER USE AS A SENSING DEVICE FOR PERSONNEL PROTECTION
- Does NOT include self-checking redundancy circuitry required for use in personnel safety applications
- Does NOT meet OSHA and ANSI standards for point-of-operation devices

Balluff, Inc. - www.balluff.com - 1-800-543-8390





**Generous detection range for high reliability**

# PHOTOELECTRIC SENSORS

Simple to use, easy to install, economically priced – these characteristics describe this line of photoelectric sensors from Balluff. Featuring complete families of background suppression, diffuse, retroreflective, and thru-beam technologies, and several body styles to choose from, there is a solution waiting for your application.

DIFFUSE



PNP, NO light-on	BOS0124	BOS01HL	BOS01FA
Dimensions	42.3x19.5x10.8 mm	M18x75 mm	M18x75 mm
Body style	Small block, 5K	Threaded, 18M	Threaded, 18M
Type	90° optics	Straight optics	Straight optics
Sensing range	900 mm, adjustable	600 mm	400 mm
Light source	Infrared	Infrared	Visible red
Connection	M8 4-pin	M12 4-pin	M12 4-pin

BACKGROUND SUPPRESSION



PNP, NO light-on	BOS015U
Dimensions	42.3x19.5x10.8 mm
Body style	Small block, 5K
Type	90° optics
Sensing range	200 mm
Light source	Visible red
Connection	M8 3-pin

## RETROREFLECTIVE



PNP, NO dark-on	BOS012E	BOS01F8
Dimensions	42.3x19.5x10.8 mm	18x75 mm
Body style	Small block, 5K	Threaded, 18M
Type	90° optics	Straight optics
Sensing range	4 m (polarized)	4 m (polarized)
Light source	Visible red	Visible red
Connection	M8 4-pin	M12 4-pin

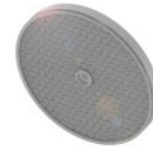
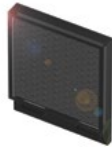
## THRU-BEAM



PNP, NO dark-on Emitter-receiver set	BOS0126	BOS0158	
PNP, NO dark-on Receiver			BOS01FE
PNP, NO dark-on Emitter			BOS01FH
Dimensions	42.3x19.5x10.8 mm	42.3x19.5x10.8 mm	18x75 mm
Body style	Small block, 5K	Small block, 5K	Threaded, 18M
Type	90° optics	90° optics	Straight optics
Sensing range	20 m	20 m	20 m
Light source	Infrared	Infrared	Visible red
Connection	M8 4-pin	M8 3-pin	M12 4-pin



REFLECTORS

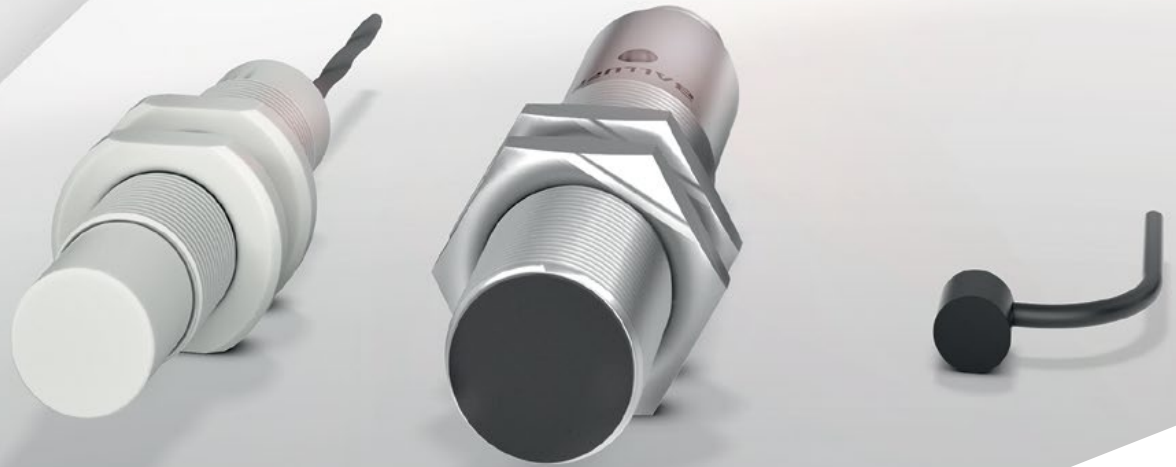


	BAM00WL	BAM00UK
Type	Reflector 51x62 mm	Reflector Ø 84 mm
Mounting	Two M4 screws	M4 screw
Material	PMMA	PMMA/ABS
Suitable product	BOS 5K and 18M	BOS 5K and 18M
Temperature range	0...+50 °C	-20...+60 °C
Reflectivity rating	100 %	100 %

BRACKETS



	BAM00U5	BAM00RY
Type	Small L bracket	Small L bracket
Mounting	Two M3 screws	Two M3 screws
Material	Stainless steel	Aluminum
Suitable product	BOS 5K	BOS 18M



**Highest quality and precision for a variety of applications**

# INDUCTIVE PROXIMITY SENSORS

Balluff's economical line of inductive proximity sensors offers a broad range of top-quality, performance proven products. The family includes a wide array of tubular M8, M12, M18, and M30 sensors available in 3-wire DC and 2-wire DC models. Built to the same high standards as all Balluff inductive proximity sensors, these sensors are 100% tested to guarantee conformance to critical published specifications. This attention to quality and performance ensures all models provide years of worry-free, reliable operation which increases production run time and decreases maintenance costs.

2X SENSING DISTANCE  
M8



PNP, NO	BES003P	BES00CK	BES001J
Dimensions	M8x59 mm	M8x40 mm	M8x60 mm
Mounting	Flush	Flush	Non-flush
Rated operating distance $S_n$	2 mm	2 mm	4 mm
Rated operating distance $S_a$	0...1.6 mm	0...1.6 mm	0...3.2 mm
Connection	M8 3-pin	M8 3-pin	M8 3-pin

2X SENSING DISTANCE  
M12

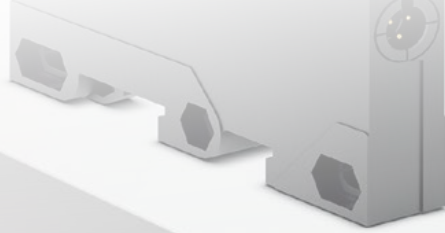


PNP, NO	BES0068	BES00EF	BES004N
Dimensions	M12x65 mm	M12x45 mm	M12x65 mm
Mounting	Flush	Flush	Non-flush
Rated operating distance $S_n$	4 mm	4 mm	8 mm
Rated operating distance $S_a$	0...3.2 mm	0...3.2 mm	0...6.5 mm
Connection	M12 4-pin	M12 4-pin	M12 4-pin

2X SENSING DISTANCE  
M18 AND M30



PNP, NO	BES008L	BES00EZ	BES00AF
Dimensions	M18x65 mm	M18x44.5	M30x65 mm
Mounting	Flush	Flush	Flush
Rated operating distance $S_n$	8 mm	8 mm	15 mm
Rated operating distance $S_a$	0...6.5 mm	0...6.5 mm	0...12.2 mm
Connection	M12 4-pin	M12 4-pin	M12 4-pin



**Object and level detection with patented technology**

# CAPACITIVE PROXIMITY SENSORS

Balluff's economical line of capacitive sensors offers a broad range of products to reliably solve object and level detection applications. The family includes a wide array of tubular M12, M18 and M30 sensors available with either M12 connectors or pre-wired cables.

Built to Balluff's high standards, all of the sensors offer reverse polarity and short circuit protection with enhanced EMC protection. Balluff's attention to quality, superior sensor design, and performance means better reliability, less down time, and higher productivity.





OBJECTIVE DETECTION

PNP, NO	BCS00P0	BCS00MF
Dimensions	12x75 mm	18x88.5 mm
Mounting	Flush	Flush
Rated switching distance $S_n$	1...4 mm	2...8 mm
Housing material	Stainless steel	Stainless steel
Sensing face material	PBT	PBT
Connection	M12 4-wire	M12 4-wire



OBJECTIVE DETECTION

PNP, NO	BCS00U6	BCS012T
Dimensions	40x40x10 mm Uniflat	16x34x8 mm MicroBox
Mounting	Flush	Flush
Rated switching distance $S_n$	1...20 mm	1...8 mm
Housing material	PBT	PP
Sensing face material	PBT	PP
Connection	0.3m M8 3-pin	0.3m M8 4-wire



LEVEL DETECTION

PNP, NO	BCS00P4	BCS00ME	BCS00LM
Dimensions	12x75 mm	18x88.5 mm	18x88.5 mm
Mounting	Non-flush	Non-flush	Non-flush
Rated switching distance $S_n$	1...8 mm	2...15 mm	2...15 mm
Housing material	Stainless steel	Stainless steel	PBT
Sensing face material	PBT	PBT	PBT
Connection	M12 4-wire	M12 4-wire	M12 4-wire



**Easy installation for space critical applications**

# PNEUMATIC CYLINDER MAGNETIC FIELD SENSORS

Balluff's compact BMF sensors are designed to fit either C-slot or T-slot extrusions and require no additional brackets for mounting—less hardware and quicker installation time. Ideal for space critical applications, these sensors fit flush into the slot, offering better sensor protection—nothing sticking out and nothing in the way. In addition, cable clips are included for cleaner cable routing and better strain relief.

Dual head magnetic field sensors have two sensors with a single connector and provide lower initial cost compared to two separate sensors—double the number of sensors in multiple interface blocks. Available in an M8 or M12 configuration.

SINGLE HEAD



PNP, NO	BMF00A2	BMF00EL	BMF00ER	BMF00C4	BMF00C5
Series	BMF 214	BMF 243	BMF 243	BMF 235	BMF 235
Cable length	0.3 m	0.3 m	0.3 m	0.3 m	0.3 m
Mounting	Slide-in C-slot	Drop-in C-slot	Drop-in C-slot	Drop-in T-slot	Drop-in T-slot
Connection	M8 3-wire	M8 3-wire	M12 4-wire	M8 3-wire	M12 4-wire

C-SLOT DUEL HEAD

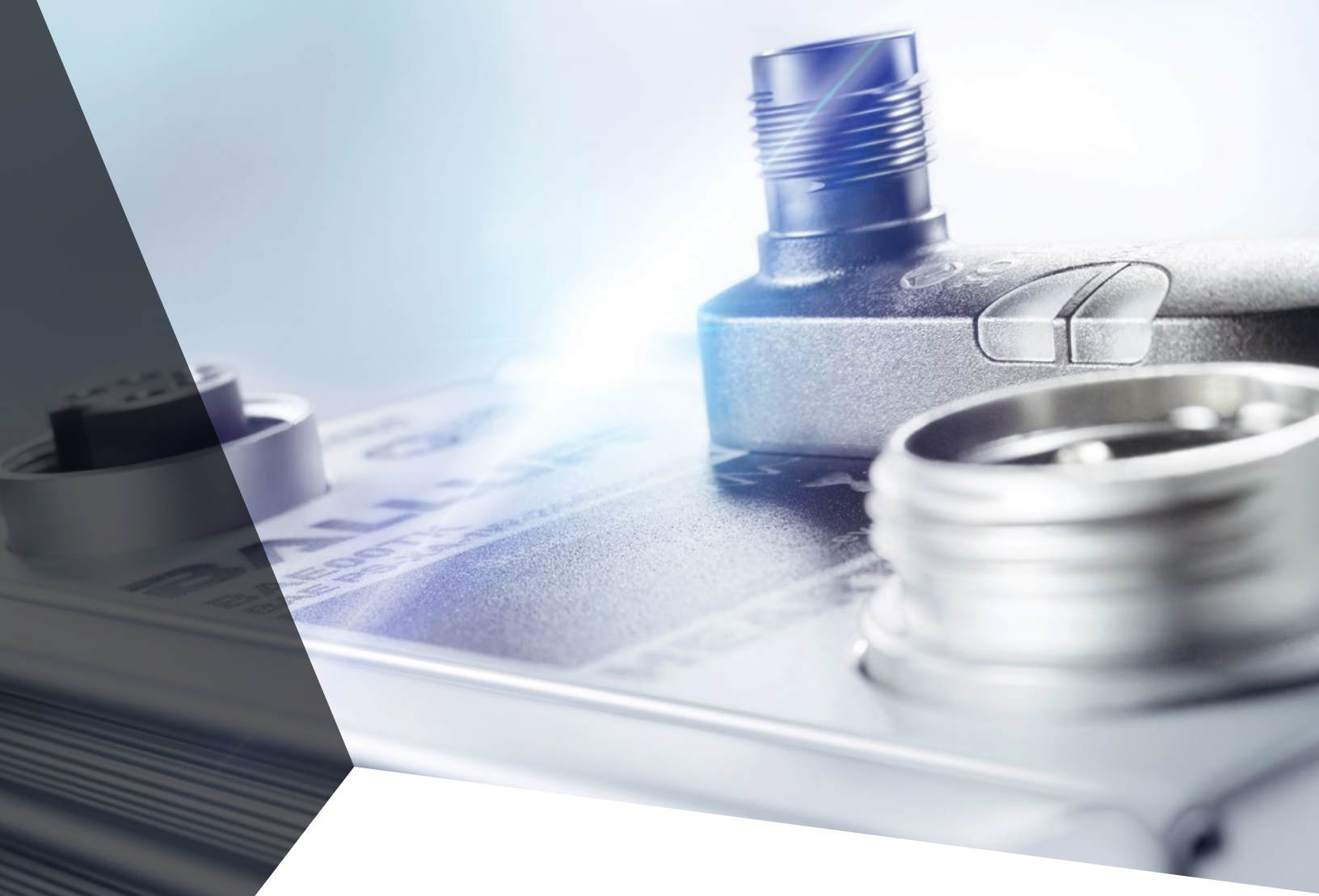


PNP, NO	BMF00A5	BMF00A4	BMF00ET
Series	214 C-slot	214 C-slot	243 C-slot
Cable length	0.3 m	0.3 m	0.3 m
Mounting	Slide-in C-slot	Slide-in C-slot	Slide-in C-slot
Connection	M8 4-wire	M12 4-wire	M8 4-wire

T-SLOT DUEL HEAD



PNP, NO	BMF00CA	BMF00C9
Series	235 T-slot	235 T-slot
Cable length	0.3 m	0.3 m
Mounting	Drop-in T-slot	Drop-in T-slot
Connection	M8 4-wire	M12 4-wire



**Reliable power and performance**

# POWER SUPPLIES

Modern-day automation places demands on the efficiency of each and every system. Balluff power supplies are designed with control products in mind, so you can be sure they will integrate perfectly with your control suite.



## DC POWER SUPPLIES



Single phase input power	BAE0005	BAE0006
Output voltage	24 V DC	24 V DC
Output current	2.5 A	5.0 A
Ripple and noise	50 mV	50 mV
Short circuit protection	Yes	Yes
Switching frequency	> 100 kHz	> 80 kHz
Efficiency (12 V/ 24 V/48 V)	86% typical/89% typical/---	84% typically/86% typically / 87% typically
Ambient temperature	-25 °C to +71 °C	-25 °C to +71 °C
Degree of protection per IEC 60529	IP 20	IP 20
Cooling	Air free convection	Air free convection
Housing material	Plastic	Metal
Approvals/Certificates	CE, UL/cUL, TUV, Class 2	CE, UL/cUL, TUV



**Connectivity**  
**CABLES**

Balluff's line of connectivity solutions complements the entire line of Balluff's automation components portfolio and more. Our connectivity portfolio assures reliable operations that everyone has come to expect from Balluff with over 90 years of automation experience.

M8 CABLES



3-wire, non-LED	BCC050Z	BCC055E
4-wire, non-LED	BCC0543	BCC059Y
Type	M8 Female	M8 Female
Configuration	Straight	Right angle
Material	PVC	PVC
Length	5m	5m

M12 CABLES



4-wire, non-LED	BCC05FJ	BCC05TJ
Type	M12 Female	M12 Female
Configuration	Straight	Right angle
Material	PVC	PVC
Length	5m	5m



### Accessories

# CLAMPING CUFFS AND MOUNTING BRACKETS

Balluff supplies a wide variety of brackets and sensor protection mounting hardware designed to decrease installation costs, prolong sensor life expectancy, reduce unplanned downtime, and increase the overall performance of utility sensors. A range of mounting solutions decreases the need to adjust sensors for correct sensing range to reduce downtime and setup costs when sensors are replaced.



CLAMPING CUFF



	BAM00A2	BAM00C4	BAM00F2	BAM00HN
Sensor	M8	M12	M18	M30
Material	PA6	PA6	PA6	PA6

**Note:** Screws and washers included

SLOTTED ANGLE BRACKET



	BAM009U	BAM00C0	BAM00EY	BAM00HH
Sensor	M8	M12	M18	M30
Material	Aluminum	Aluminum	Aluminum	Aluminum


**Note:** Screws and washers included

**BALLUFF**



Balluff

# OPENING NEW PERSPECTIVES

 *innovating automation*

Balluff is one of the leading suppliers of high-quality sensor, identification and network solutions for your automation requirements. Family-owned and led for more than 90 years, around 3300 employees in 62 subsidiaries and representatives as well as nine production facilities around the world represent the highest quality standards. With Balluff you always get the best.

Innovative solutions increase your competitive ability, using our top products and services. Balluff offers many years of experience, the expertise of a manufacturer and high personal dedication.

In line with our motto "Innovating Automation" we are pacemakers of automation, refiners and new developers, and technological trailblazers. In open exchange with trade associations, universities and research facilities as well as in close contact with our customers we create new industry solutions or a new communication standard such as IO-Link. Innovative Balluff solutions equip you for a successful future.

We have the future firmly in view in everything we do. With sophisticated environmental management we protect the environment and handle our resources with care. This also creates the best prerequisites for sustained action.

We keep our promises, so you can always rely on us, our products and our adherence to delivery dates and schedules – all in the name of a mutually beneficial partnership.

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HOW  
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