BALLUFF

AUTOMATION MADE EASY – ENTRY LINE

Maximum efficiency. Convincing price-performance ratio.

innovating automation

Entry Line Portfolio

MAXIMUM EFFICIENCY. MINIMAL COMPLEXITY. CONVINCING PRICE-PERFORMANCE RATIO.

Users are often faced with a dilemma when selecting sensors:

Either they opt for low-cost products with compromises on quality and functionality – which can lead to frequent retrofits, machine downtime and high personnel costs. Or they choose high-priced components with many, often unnecessary features, which make the investment more expensive and require additional expert knowledge during installation.

With the Balluff Entry Line products, there is no compromise to be made:

You get exactly the functions you need for standard applications – in proven Balluff quality, without unnecessary frills and at an unbeatable price-performance ratio.

What makes Entry Line products unique?

Focus on the essentials – and maximum flexibility

- Focus on the most important functions for the standard factory environment – no superfluous features, just what matters
- Optimal balance between price and performance through targeted reduction of materials and variants
- Thanks to multi-protocol capability and IIoT interfaces in the IO-Link network modules, you are well equipped for all current and future requirements

Easy integration and handling

- Entry Line products can be easily integrated into existing automation systems – whether sensors or IO-Link network modules
- The intuitive web interface (Web UI) enables quick and convenient configuration of IO-Link network modules, even without expert knowledge
- The robust design, variable connection options, and standardized connections ensure uncomplicated installation and reliable operation – even in harsh environmental conditions
- Highly visible LED indicators on the sensors provide immediate status display, fast error identification, and maximum system availability

Efficiency and cost-effectiveness

- You benefit from an optimal price-performance ratio, especially for larger quantities and high-volume applications
- The Entry Line variants reduce the number of components required and thus your costs – e.g., through multi-protocol in one device
- Environmentally friendly packaging and long-lasting quality conserve resources and lower your operating costs

What really matters

YOUR ADVANTAGES AT A GLANCE

- **Clarity and certainty when making your selection**
  You don't have to compromise: with the Entry Line products, you get exactly what you really need – without superfluous features that unnecessarily increase the cost of your investment. This gives you planning security and makes your decision easier.

- **Maximum cost-effectiveness**
  You benefit from an excellent price-performance ratio. This means you only invest in the features that are relevant to your standard applications – saving you money without compromising on reliability.

- **Time savings throughout the entire process**
  From ordering to installation to ongoing operation: the Entry Line variants are consistently designed for efficiency. You save time during selection, unpacking, installation, and servicing – and can concentrate on your core business.

- **Reduced operating costs**
  Less downtime, less maintenance, less packaging waste – and with multi-protocol capability and IIoT interfaces on the IO-Link masters, you are future-proof.

- **Easy to use – no experts needed**
  Operation and commissioning are intuitive and self-explanatory. You don't need any special knowledge or external support – from installation to configuration via web interface or plug-and-play.

- **Sustainability that pays off**
  With environmentally friendly packaging solutions and long-lasting quality, you contribute to sustainability – while also benefiting from less waste and lower disposal costs.

- **A reliable partner at your side**
  With Balluff, you can rely on an experienced supplier who supports you not only with products, but also with service, advice, and support – so you can feel confident in every decision.

Automation made easy

OUR ENTRY LINE PORTFOLIO

With Entry Line sensors and the matching IO-Link network modules, you can automate efficiently, economically, and worry-free – while remaining as flexible as possible for the future.

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Inductive Sensor Portfolio BES Entry

FOR THE STANDARD FACTORY ENVIRONMENT

Cubic Inductive Factor 1 Sensors

ECONOMICAL ENTRY VARIANTS WITH REDUCTION FACTOR 1

The inductive factor 1 sensor family detects all metals with identical switching distance without reduction factor, is magnetic field-resistant for trouble-free operation and convinces with an innovative housing concept with optimal visibility of the displays from almost any angle.

Features

- Reduction factor 1
- Magnetic field resistant
- Flexibly installed due to rotatable active surface
- Very easy to see operating and function display

The inductive Entry Line sensors in six variants offer an optimal price-performance ratio for standard applications, reduce time and packaging costs through multi-packaging, enable fast fault detection thanks to their 360° LED display and impress with simple plug-and-play installation.

Features

- Reliable object detection due to double switching distance
- Optimized visual monitoring with operating voltage display and 360° light
- Easy to assemble and replace thanks to clamp holder with fixed stop (optional)
- Environmentally friendly multi-packaging for higher quantities

Product line	Order Code	Technical features	Execution	Price
STYLE HOUSING Q40	BES0602	40 x 40 x 66 mm, Sn = 20 mm, for flush mounting, PNP NO, Connector M12	Faktor 1, Standard DC 3/4-wire	**62.36 £**
	BES0603	40 x 40 x 66 mm, Sn = 40 mm, non-flush, PNP NO, Connector M12	Faktor 1, Standard DC 3/4-wire	**62.36 £**

Product line	Order Code	Technical features	Execution	Price
STYLE HOUSING Q40	BES0604	40 x 40 x 66 mm, Sn = 20 mm, for flush mounting, PNP NC, Connector M12	Faktor 1, Standard DC 3/4-wire	**62.36 £**
	BES0607	40 x 40 x 66 mm, Sn = 40 mm, non-flush, PNP NC, Connector M12	Faktor 1, Standard DC 3/4-wire	**62.36 £**

Product line	Order Code	Technical features	Dimension	Execution	Price
STYLE HOUSING M8X1	BES060N	Sn = 2 mm, PNP NO, Connector M8	Ø 8 x 45 mm	Standard DC 3/4-wire	**14.29 £**
	BES060T	Sn = 2 mm, PNP NO, Connector M8	Ø 8 x 65 mm	Standard DC 3/4-wire	**14.29 £**
STYLE HOUSING M12X1	BES060R	Sn = 4 mm, PNP NO, Connector M12	Ø 12 x 45 mm	Standard DC 3/4-wire	**13.51 £**
	BES060U	Sn = 4 mm, PNP NO, Connector M12	Ø 12 x 65 mm	Standard DC 3/4-wire	**13.51 £**
STYLE HOUSING M18X1	BES060P	Sn = 8 mm, PNP NO, Connector M12	Ø 18 x 45 mm	Standard DC 3/4-wire	**15.43 £**
	BES060M	Sn = 8 mm, PNP NO, Connector M12	Ø 18 x 65 mm	Standard DC 3/4-wire	**15.43 £**

BOS Entry Industrial Photoelectric Sensors

ALL-ROUNDER FOR RELIABLE OBJECT DETECTION

Our BOS Entry Line photoelectric sensors offer precise performance, a compact design and easy integration into your systems. With a wide range of variants, all optical sensors in this model series offer reliable quality and strong performance – all at an attractive price-performance ratio.

Features

- All relevant functional principles and a wide range of connection options enable precise integration into your specific application
- 360° indicator LEDs visible all around for easy installation and status indication
- No manufacturer-specific teaching routine. Support for all common switching logics: NPN and PNP circuitry, light and dark switching
- Environmentally friendly multi-pack packaging ensures efficient storage and retrieval

Product line	Order Code	Technical features	Light type	Price
BOS R072K – THROUGH-BEAM SENSORS	BOS02JE	Range 20 m, PNP NO/NC, Connector, M8x1-Male, 4-pin	LED, red light	57.67 £
	BOS02JH	Range 20 m, PNP NO/NC, Cable 2 m	LED, red light	57.67 £
	BOS02JP	Range 20 m, PNP NO/NC, Connector, M8x1-Male, 3-pin	LED, red light	57.67 £
	BOS02JR	Range 20 m, PNP NO/NC, Cable 2 m	LED infrared	57.67 £
	BOS02K9	Range 20 m, PNP NO/NC, Connector, M8x1-Male, 4-pin	LED infrared	57.67 £
	BOS02K0	Range 20 m, PNP NO/NC, Cable with connector, M8x1-Male, 4-pin, 1.50 m, TPU	LED, red light	57.67 £
	BOS02K1	Range 20 m, PNP NO/NC, Cable with connector, M8x1-Male, 4-pin, 0.30 m, TPU	LED, red light	57.67 £
BOS R072K – DIFFUSE SENSOR, BACKGROUND SUPPRESSION	BOS02JM	Range 350 mm, PNP NO/NC, Connector, M8x1-Male, 4-pin	LED, red light	57.67 £
	BOS02JN	Range 350 mm, PNP NO/NC, Connector, M8x1-Male, 3-pin	LED, red light	57.67 £
	BOS02JU	Range 350 mm, PNP NO/NC, Connector, M8x1-Male, 4-pin mit 0.3 m, TPU	LED, red light	57.67 £
	BOS02JW	Range 350 mm, PNP NO/NC, Connector, M8x1-Male, 4-pin mit 1.5 m, TPU	LED, red light	57.67 £
	BOS02JY	Range 350 mm, PNP NO/NC, Cable 2 m	LED, red light	57.67 £
	BOS02KJ	Range 350 mm, PNP NO/NC, Connector, M8x1-Male, 4-pin	LED infrared	57.67 £
	BOS02KK	Range 350 mm, PNP NO/NC, Cable 2 m	LED infrared	57.67 £
BOS R072K – DIFFUSE SENSOR	BOS02K2	Range 800 mm, PNP NO/NC, Connector, M8x1-Male, 4-pin	LED, red light	52.43 £
	BOS02K4	Range 800 mm, PNP NO/NC, Connector, M8x1-Male, 3-pin	LED, red light	52.43 £
	BOS02K5	Range 800 mm, PNP NO/NC, Cable, 2 m, TPU	LED, red light	52.43 £
	BOS02K7	Range 800 mm, PNP NO/NC, Cable with connector, M8x1-Male, 4-pin, 1.50 m, TPU	LED, red light	52.43 £
	BOS02K8	Range 800 mm, PNP NO/NC, Cable with connector, M8x1-Male, 4-pin, 0.3 m, TPU	LED, red light	52.43 £
	BOS02KC	Range 1000 mm, PNP NO/NC, Connector, M8x1-Male, 4-pin	LED infrared	57.67 £
	BOS02KF	Range 1000 mm, PNP NO/NC, Cable, 2 m, TPU	LED infrared	52.43 £
BOS R072K – RETROREFLECTIVE SENSORS	BOS02KM	Range 5 m, PNP NO/NC, Connector, M8x1-Male, 3-pin	LED, red light	52.43 £
	BOS02KP	Range 5 m, PNP NO/NC, Cable, 2 m, TPU	LED, red light	52.43 £
	BOS02KR	Range 5 m, PNP NO/NC, Cable with connector, M8x1-Male, 4-pin, 0.30 m, TPU	LED, red light	52.43 £
	BOS02KT	Range 5 m, PNP NO/NC, Cable with connector, M8x1-Male, 4-pin, 1.50 m, TPU	LED, red light	52.43 £
	BOS02KU	Range 5 m, PNP NO, Connector, M8x1-Male, 4-pin	LED, red light	52.43 £
	BOS02KW	Range 5 m, PNP NO, Cable, 2 m, TPU	LED, red light	52.43 £
	BOS02KY	Range 5 m, PNP NO, Cable with connector, M8x1-Male, 4-pin 0.3 m TPU	LED, red light	52.43 £
	BOS02KZ	Range 5 m, PNP NO/NC, Connector, M8x1-Male, 4-pin	LED, red light	52.43 £

Fork Sensors BGL Entry

FOCUS ON THE ESSENTIALS

The entry-level models of the Balluff fork sensors combine cost optimization with proven robustness: Red light technology for reliable object detection regardless of color and surface, embedded in a robust metal housing - ideal for demanding industrial environments

Features

- Easy alignment and monitoring by visible red transmitter light
- Reliable object detection regardless of color and surface
- Three fork sizes for different requirements: 30, 50 and 80 mm

T-slot Magnetic Sensor BMF Entry

FOR MORE FLEXIBILITY IN AUTOMATION

The BMF T-Slot magnetic sensor impresses with its outstanding price-performance ratio and automatic detection of magnet alignment both axially and radially. Thanks to simple installation from above and optimized clamping screw, it enables quick integration, increases efficiency and operational safety.

Features

- Automatic detection of axial and radial alignment
- Optimization of the clamping screw
- Easy assembly/disassembly from above
- Multiple packaging for higher quantities
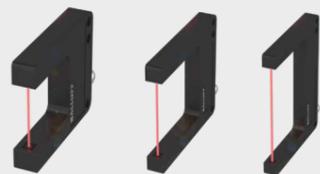
Product line	Order Code	Technical features	Fork opening	Light type	Price
STYLE HOUSING BGL-A-ENTRY	BGL0070	Push-pull NO(PNP)/NC(NPN), Connector, M8x1-Male, 3-pin	30 mm	LED, red light	99.61 £
	BGL006Y	Push-pull NO(PNP)/NC(NPN), Connector, M8x1-Male, 3-pin	50 mm	LED, red light	99.61 £
	BGL006Z	Push-pull NO(PNP)/NC(NPN), Connector, M8x1-Male, 3-pin	80 mm	LED, red light	99.61 £

Product line	Order Code	Technical features	Mounting part	Price
STYLE HOUSING 235K	BMF00PN	PNP NO, TPU, 1 m, fixed switching point	can be installed in T-slot from above	26.89 £
	BMF00PM	PNP NO, M8x1-Male, 3-pin, TPU, 0.3 m, fixed switching point	can be installed in T-slot from above	29.05 £
STYLE HOUSING 235K	BMF00PP	PNP NO, M8x1-Male, 4-pin, TPU, 0.3 m, fixed switching point	can be installed in T-slot from above (twin version for T-slot)	50.65 £
	BMF00PW	PNP NO, TPU, 2 m, fixed switching point	can be installed in T-slot from above	27.43 £

IO-Link Masters from the Entry Line

THE EASY WAY TO GET STARTED WITH IO-LINK TECHNOLOGY

IO-Link Hubs from the Entry Line

EASY SCALING WITH GOOD VALUE FOR MONEY

The BNI Entry Line sensor/actuator hubs are the perfect solution for getting started with IO-Link technology. They impress with an optimized housing concept, easy handling and high cost efficiency - ideal for standard applications and decentralized architectures.

Features

- **Flexible connectivity:**
  Up to 16 digital inputs or 8 inputs/outputs
- **Optimized design:**
  Compact, lightweight and sustainable –
  in a potting-free housing
- **Easy integration:**
  Eight standardized M12 ports, four of which can
  be variably configured
- **Robust and reliable:**
  IP67 protection for use in harsh industrial environments
- **Cost savings:**
  Efficiently scale your network topology –
  without additional fieldbus modules

Our IO-Link masters of the BNI Entry Line make it easy to enter the world of high-performance communication standards. They connect industrial networks with IO-Link and offer maximum flexibility thanks to multi-protocol capability – ideal for cost-efficient and future-proof automation solutions.

Features

- **Multi-protocol support:**
  Support of common fieldbus protocols
  (e.g. Profinet, Ethernet/IP) in one device
- **IIoT-ready:**
  MQTT and REST API for modern applications
- **Easy setup:**
  User-friendly web interface for quick configuration
- **Secure communication:**
  HTTPS support for maximum data security

Product line	Order Code	Technical features	Execution	Price
IO-LINK MASTER	BNI00L1	Multiprotocol (Profinet, Ethernet IP, EtherCat, Modbus), M12x1-Male, 5-pin, L-coded	Entry Black Line Master	**346.01 £**
	BNI00HP	Multiprotocol (Profinet, Ethernet IP), M12x1-Male, 2-pin, A-coded	Entry Master	**314.55 £**
	BNI00HR	Multiprotocol (Profinet, Ethernet IP), M12x1-Male, 3-pin, L-coded	Entry Master	**325.04 £**

Product line	Order Code	Technical features	Execution	Price
IO-LINK HUB	BNI00J8	8 x PNP, M12 IO-Link hubs with configurable I/O and 2A US/UA current	Entry Hub	**133.91 £**
	BNI00JA	8 x PNP, M12 IO-Link hubs with configurable I/O and 2A US/UA current with extension port	Entry Hub	**150.11 £**
	BNI007Z	16 x PNP, M12 IO-Link hubs with configurable I/O and 4A US/UA current with extension port	Entry Hub	**162.64 £**
	BNI00J0	Digital input only mode, M12 IO-Link hubs with 4A US current	Entry Hub	**142.55 £**

Single-ended- and Double-ended cordsets

CONNECTIVITY

In addition to the Entry Line sensors and network modules, the extensive portfolio also includes the appropriate connection and cable assemblies.
This allows you to benefit from a comprehensive solution for all industrial automation requirements and ensures that all components are optimally coordinated.
These cables also combine the typical characteristics of the Entry Line: reliable quality and strong performance – and all this at an attractive price-performance ratio.

SINGLE-ENDED CORDSETS

Product line	Order Code	Full code	Connection	Cable/ Conductor cross-section	Price
WITH 3-CONDUCTORS	BCC02M8	BCC M313-0000-10-001-PX0334-020	M8x1-Female, straight, 3-pin, A-coded	PUR black, 2 m, drag chain compatible/ 0.34 mm²	9.41 £
	BCC02M9	BCC M313-0000-10-001-PX0334-050	M8x1-Female, straight, 3-pin, A-coded	PUR black, 5 m, drag chain compatible/ 0.34 mm²	13.97 £
WITH 4-CONDUCTORS	BCC02N2	BCC M314-0000-10-003-PX0434-020	M8x1-Female, straight, 4-pin, A-coded	PUR black, 2 m, drag chain compatible/ 0.34 mm²	10.59 £
	BCC02N3	BCC M314-0000-10-003-PX0434-050	M8x1-Female, straight, 4-pin, A-coded	PUR black, 5 m, drag chain compatible/ 0.34 mm²	15.90 £
	BCC032F	BCC M415-0000-1A-003-PX0434-020	M12x1-Female, straight, 5-pin, A-coded	PUR black, 2 m, drag chain compatible/ 0.34 mm²	10.59 £
	BCC032H	BCC M415-0000-1A-003-PX0434-050	M12x1-Female, straight, 5-pin, A-coded	PUR black, 5 m, drag chain compatible/ 0.34 mm²	15.90 £
WITH 4-CONDUCTORS	BCC032Y	BCC M425-0000-1A-003-PX0434-020	M12x1-Female, angled, 5-pin, A-coded	PUR black, 2 m, drag chain compatible/ 0.34 mm²	10.59 £
	BCC032Z	BCC M425-0000-1A-003-PX0434-050	M12x1-Female, angled, 5-pin, A-coded	PUR black, 5 m, drag chain compatible/ 0.34 mm²	15.90 £

DOUBLE-ENDED CORDSETS

Product line	Order Code	Full code	Connection 1	Connection 2	Cable/Conductor cross-section	Price
WITH 3-CONDUCTORS	BCC02R9	BCC M313-M313-30-300-PX0334-020	M8x1-Female, straight, 3-pin, A-coded	M8x1-Male, straight, 3-pin, A-coded	PUR black, 2 m, drag chain compatible/ 0.34 mm²	15.79 £
	BCC02RC	BCC M313-M313-30-300-PX0334-050	M8x1-Female, straight, 3-pin, A-coded	M8x1-Male, straight, 3-pin, A-coded	PUR black, 5 m, drag chain compatible/ 0.34 mm²	20.34 £
WITH 4-CONDUCTORS	BCC02TL	BCC M314-M314-30-304-PX0434-020	M8x1-Female, straight, 4-pin, A-coded	M8x1-Male, straight, 4-pin, A-coded	PUR black, 2 m, drag chain compatible/ 0.34 mm²	17.64 £
	BCC02TN	BCC M314-M314-30-304-PX0434-050	M8x1-Female, straight, 4-pin, A-coded	M8x1-Male, straight, 4-pin, A-coded	PUR black, 5 m, drag chain compatible/ 0.34 mm²	22.95 £
	BCC039M	BCC M415-M414-3A-304-PX0434-020	M12x1-Female, straight, 5-pin, A-coded	M12x1-Male, straight, 4-pin, A-coded	PUR black, 2 m, drag chain compatible/ 0.34 mm²	17.64 £
	BCC039P	BCC M415-M414-3A-304-PX0434-050	M12x1-Female, straight, 5-pin, A-coded	M12x1-Male, straight, 4-pin, A-coded	PUR black, 5 m, drag chain compatible/ 0.34 mm²	22.95 £

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