BALLUFF

Balluff smart safety

BE ON THE SAFE SIDE.

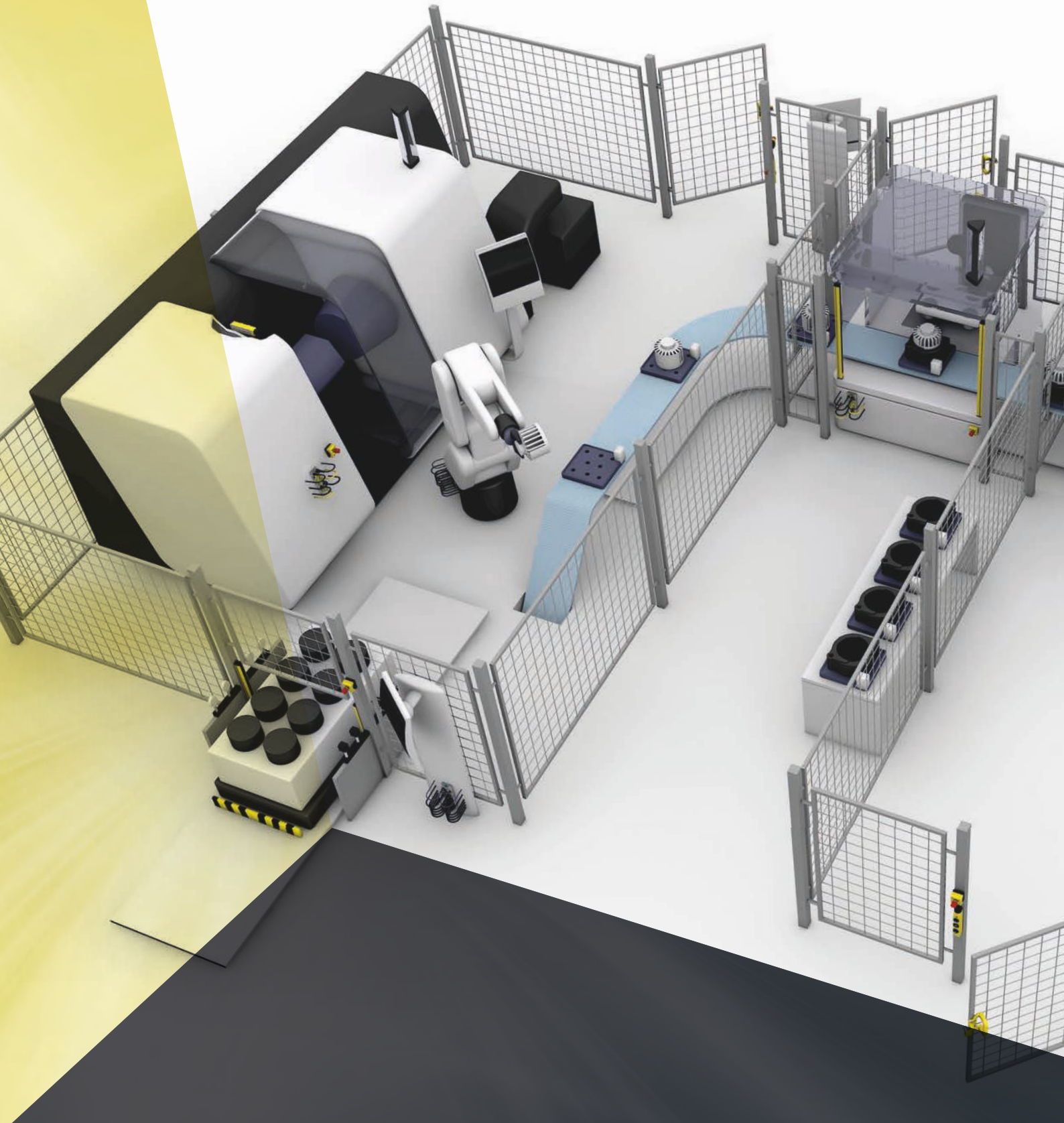


SAFETY OVER IO-LINK

innovating automation

Simply safe

SMART SAFETY. SAFETY WITH BALLUFF QUALITY.



Safety over IO-Link bridges the gap between the safety architecture and the standard automation- bringing both systems together, further simplifying complexity of today‘s automation. Using state-of-the-art technology and quality that you come to expect from Balluff, Safety over IO-Link from Balluff significantly enhances value of your investment.



Balluff safety components

Our safety concept includes a growing number of products and components that minimize risk for people and production systems. These components are easy to integrate into your existing control system.

One-of-a-kind: Safety over IO-Link

To increase the efficiency of safety concepts and integrate them into the control system, we have developed the Balluff Safety Hub. This is the first integrated safety solution that uses IO-Link! Safety over IO-Link is easy to integrate, responds quickly and can replace the control cabinet.

Safety over IO-Link combines automation and safety technology. IO-Link handles communication down to the last meter and provides both sensor/actuator details, as well as secure information. State-of-the-art, with the quality you have come to expect from Balluff.

Built-in flexibility to adapt to changes quickly

Same IO-Link master port can be used for safety I/O module or for standard I/O module. Depending on the application at hand, the system can be quickly re-configured to adapt to the changes without deviating from standard topology.

Easy to integrate, cost-saving and flexible

DISCOVER THE BENEFITS OF SAFETY OVER IO-LINK.

Using IO-Link advantages for safety

Reliable, flexible exchange of information, data transfer across all levels, easy connection and universal standardized interfaces – with Safety over IO-Link comes the advantage of having the proven safety benefits of IO-Link.

Easy to integrate

Integrating safety technology only requires you to connect the I/O module to the IO-Link master. You can connect nearly any safety device to this system, which is open all the way to the sensor level.
Parameters are configured centrally using the controller. Safety-related information is sent directly through the master to the controller. Using Profisafe via Profinet guarantees secure communication with the controller.
In some cases you can even dispense with a separate hub. This is because the Safety Hub makes it possible to bundle signals from standard binary sensors as well.

A simple system setup reduces machine installation space

An intelligent expansion of IO-Link with the addition of safety components makes it easy for you to set up the system. You cut down on wiring and reduce the volume of your control cabinet as well as the installation space of your machine.

Safety over IO-Link lowers overall costs

Safety over IO-Link combines safety and automation in one system. The safe I/O modules can be added to the existing IO-Link topology in the field. And the savings potential from IO-Link provides you with benefits over the entire life cycle of your machine.

Scalability increases system performance

With Safety over IO-Link the existing network topology is scalable to accommodate future needs. You can connect both safety and standard components to the I/O module. This maintains the function of your system just the way you use it and ensures safety. Both topologies are successfully combined and increase the performance of your system.

NEW OFFER EXCLUSIVELY FROM BALLUFF:

Safety over IO-Link

- Combines automation and safety technology
- High degree of process reliability
- More space in your control cabinet
- Easy to integrate
- Simple system structure
- Lower overall costs
- Increased system performance
- High flexibility

STANDARD SENSORS/ ACTUATORS

STANDARD PLC

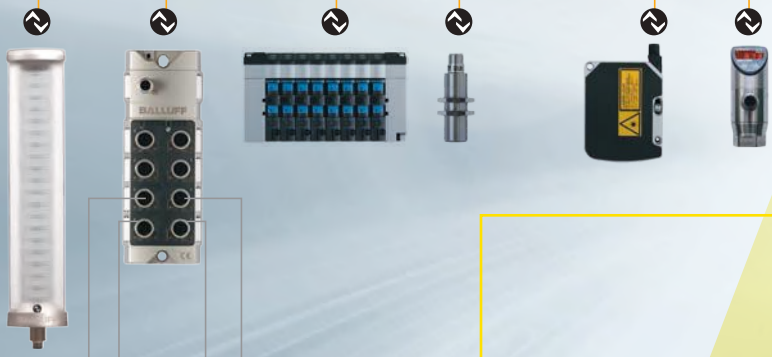
SAFETY PLC



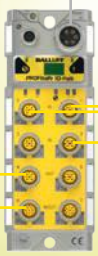
FIELDBUS
WITH IO-LINK
INTERFACE



IO-LINK
DEVICES



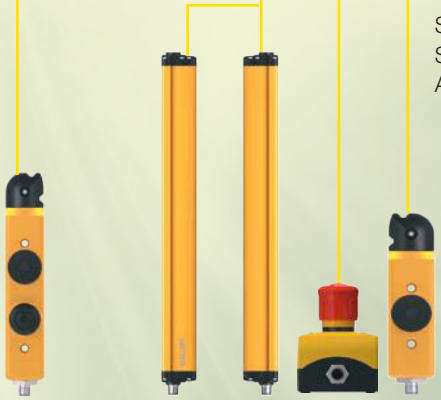
**SAFETY
OVER
IO-LINK
DEVICES**







SAFETY
SENSORS/
ACTUATORS



THE BALLUFF SAFETY HUB.

NEW!



THE SAFETY HUB

Type

	BNI0098
Device interface	Profisafe over IO-Link
Baud rate	COM2 (38.4 kBaud)
Response time	20 ms max.
PL (EN ISO 13849-1) SIL CL (EN/IEC 62061)	PLe SIL CL 3
Power supply	19.2...30 V
Degree of protection per IEC 60529	IP67 (with connectors)
Ambient temperature	–5...+55 °C
Number of inputs	2
Number of safe inputs	12
Number of outputs	2
Number of safe outputs	2
Total current $U_{Actuator}$	8 A
Cable length for inputs/outputs	30 m max.
Approvals	TÜV, UL in preparation

Safe signal transmission and communication

For the first time, the new safety I/O module combines automation and safety technology using IO-Link by simply connecting to the IO-Link master. Since the system is open all the way to the sensor level, you can connect nearly any safety device.

Features

- Infrastructure for automation and safety technology up to PLe/SIL3 via IO-Link
- Low maintenance costs in case of service thanks to comprehensive diagnostics and easy device replacement
- Standard M12 connections and cables for IO-Link devices including Safety IO/Module
- Reduce of the required IP addresses
- Standardized wiring concept, reliable guard locking devices can be connected directly
- Compatibility with most safety devices

BALLUFF SAFETY COMPONENTS



SAFETY LIGHT CURTAINS

Optoelectric danger zone protection for detecting people

BLG 4A safety light curtains from Balluff are photoelectric, electrosensitive protective equipment. They detect fingers, hands and other body parts and are used in work areas where machines present potential hazards. They stop hazardous movements in these areas.

Features

- Better use of space by saving on safety fence structures
- Faster interaction between human and machine
- High level of integrated tamper protection
- Able to detect fingers, hands and other body parts
- Safety parameters: PLe / SIL3
- Defined safety zone with protective infrared field
- Hazardous movements are stopped quickly



SAFETY SWITCHES

Durable, reliable interlocking and guard locking devices

BID F101 safety switches from Balluff, with a separate actuator, provide protection for persons and machines. Together with a machine control system and a protective barrier, they safeguard access to the hazardous areas.

Features

- Sturdy metal housing with status indicator
- Rotatable actuating head (90° increments) with two slots
- M12 connector (5 or 8-pin)
- Locking device with either an open- or closed-circuit current principle
- High holding forces of up to 2500 N
- Option of switch with or without a mechanical lock or an electric lock



EMERGENCY STOP DEVICE

Emergency stop device in compact housing for easy installation on various machines and systems

The emergency stop function must be available at all times for an automated system. As an additional protective measure, the emergency stop device initiates an immediate stop command whenever necessary. Therefore, it can be used for personal protection functions.

Features

- Reliable disconnection of the power supply
- Positive opening per IEC 60947-5-1
- M12 connector (5-pin)
- Turn-to-release mushroom pushbutton
- High degree of protection against dust and water
- Compact housing, easy installation

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HOW TO CONTACT US

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