Benefits of RFID

Your Benefit Package

Profit in several ways from RFID in the food production. The radio-based identification technology allows not only efficient production control but also easy traceability, increases the availability of means of production, productivity and safety. Moreover, all processes are reliably documented.

Benefit: Tailor-made for Food Applications

- Comprehensive portfolio of application-optimized data carriers and read/write heads for the food industry
- Resistant to cleaning operations
- Tailor-made for typical food applications

Benefit: Track & Trace in the Food Production

- Increased efficiency through seamless production control, quick batch changes, mixed production of different products, as well as simple capture of yield
- Ensuring the correct origin, such as regional or organic production or after EU labelling regulation
- Lifetime management of the means of production – such as moulds or transport containers – provides an overview of volume, age and condition and allows timely ordering, precautionary check based on fixed cycles, or even removal in case of production problems
- Traceability in the case of problems, such as contamination, pathogens or incorrectly labelled ingredients
- Quality assurance by ensuring the cleaning cycles, monitoring of cooling and drying times, time stamp, as well as the simplified process documentation

Benefit: RFID vs. Optical Identification

- Read and write without visual contact with significantly higher reading rate
- Higher information content on the data carrier without a database connection
- Protection against environmental influences such as pollution, ambient light, ice formation and condensation, mechanical damage or aggressive cleaning operations
- Simultaneous detection of many transponders by pulk reading
- Smaller footprint of transponders
- Higher reading rate

28 subsidiaries and over
60 representations worldwide!

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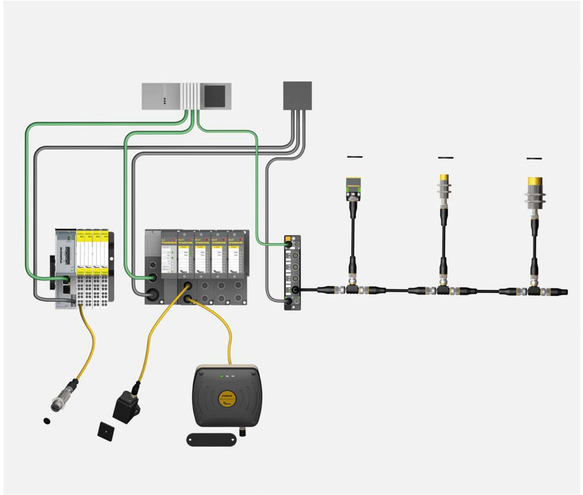
Modular RFID System BL ident®



BL ident® is an all-in-one modular RFID system that also plays out its strengths in the food industry. The basic components are the Turck I/O systems BL67 (field), BL20 (cabinet) and the compact fieldbus modules TB…-L… and TB…-S…(field). Both technologies, HF (13.56 MHz, ISO15693) and UHF (865…928 MHz, acc. to ISO 18000-6C/EPCglobal Class 1 Gen 2) are available in one identification solution.
Each BL ident® system can be flexibly composed from data carriers (tags), read/write heads, connectivity and interfaces (gateway and RFID modules) to a custom-made identification solution that can be easily integrated into your system configuration via gateways for all common fieldbus protocols. A particularly economical solution for non-time-critical applications is the connection of up to 32 bus-compatible read/write heads in line topology to a single interface channel. Programmable interfaces can locally trigger an alarm when a tag is damaged and is no longer functional. For this purpose, a sensor is connected to the interface that detects the presence of the object provided with a tag.
The BL ident® system works wear-free and contactless. It is insensitive to temperature changes, dirt and fluids and has thus a long service life. BL ident® is a future-proof investment and interoperable, thanks to the open and worldwide applied standards.

You find these products in the application examples on the back side

Read/Write Head	Type Code	Dimensions	Description
	TB-Q08-0.15-RS4.47T/CS3	32 × 20 × 8 mm	HF technology, extremely compact, up to 32 read/write heads can be connected to an interface channel
	TN-Q14-0.15-RS4.47T	52 × 30 × 14 mm	HF technology, compact
	TN-EM30WD-H1147	Threaded barrel 30 mm	HF technology, protection class IP69K, particularly chemical-proof
	TNSLR-Q42TWD-H1147	67.7 × 42.5 × 42.5 mm	HF technology, protection class IP69K, very long range and at the same time compact
	TNSLR-Q80WD-H1147	102 × 83 × 40 mm	HF technology, protection class IP69K, very long range
	TNLR-Q80L400-H1147	400 × 80 × 25 mm	HF technology, broad design to capture a larger area or great speeds
	TN865-Q17SL200-H1147	200 × 175 × 60 mm	UHF technology for very long range

Read/Write Head	Type Code	Dimensions	Description
	TW-R9.5-B128	Ø 9,5 mm	HF miniature data carrier
	TW-R12-M-B146	Ø 12 mm	HF special data carrier for flush mounting in metal
	TW-R16-B128	Ø 16 mm	HF standard data carrier
	TW-R50-B128	Ø 50 mm	HF standard data carrier for long ranges
	TW-Q51WH-HT-B128	51 x 51 x 6,5 mm	HF data carrier for intermittent temperatures up to 240 °C, suited for autoclave applications
	TW-L86-54-C-B128	86 x 54 x 0,8 mm	HF data carrier in credit card format
	In Mould Label	on request	HF/UHF In Mould Label for direct molding in plastic boxes
	TW860-960-Q27L97-M-B112	97 x 27 x 15 mm	UHF data carrier for mounting on metal
	TW860-960-L73-17-F-B40	73 x 17 x 1,1 mm	UHF standard data carrier

Your Global Automation Partner

TURCK

RFID Solutions
for the Food & Beverage Industry

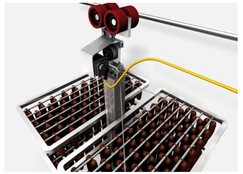
RFID Solutions for Reliable Identification of:

Meat Hooks

- Tracking of meat hooks in the production process
- Data carriers, flush mountable in unslotted hooks
- Combination with inductive sensor for identification of faulty tags – also decentralized evaluation in the interface

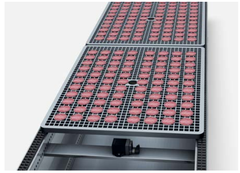
Plastic Boxes at Workstations

- Increasing the efficiency of slaughterhouses by identification of each individual meat box at different workstations
- Installation of data carriers directly into the bottom of the box
- Highly resistant read-write heads in Wash-Down design



Drying Racks

- Controlling the drying process of sausages by identification of the drying racks
- Increased efficiency through accurate documentation of the weight loss during drying



Transport Trays

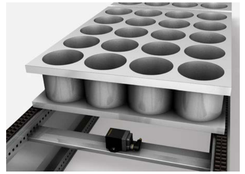
- Tracks transport trays for sausage slices
- Special wash-down media and read/write heads for use in the meat industry

Plastic Boxes for Intralogistics

- Tracking of goods carriers in conveying systems
- Integration of the data carrier below the top edge of the box
- Reliable identification over great distances by wide reaching UHF technology

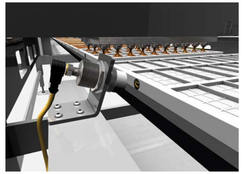
Test Bottles

- Clear identification of test bottles with specific defects
- Data carrier can be integrated directly in test bottles
- Safer than a reflective tape on bottle or bottle neck, which could fall off



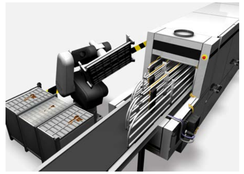
Cheese Moulds

- Tracking of cheese moulds for a complete documentation of the production and cleaning operations
- Start of production only with purified forms guarantees increased food safety
- Wash-down data carriers and read/write heads for use in dairies



Chocolate Moulds in the Production Line

- Reduced batch-change time or mixed production by mould-driven moulding processes
- Selectif removal in the event of possible production problems
- Application-optimized data carriers and read/write heads for the food industry



Chocolate Moulds at the Mould Washing Unit

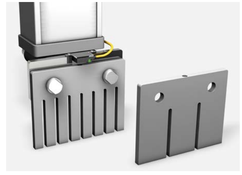
- Economical use of energy and detergents through mould-specific cleaning programs
- The shape of each identified mould defines the optimal cleaning program
- Long service life of moulds through gentle cleaning

Metal Racks in the Interim Storage Facility

- High availability of production means through clear identification of the storage racks
- Integration of the read/write head in the forklift truck
- Robust data carriers for direct mounting on metal

Goods Carriers in Autoclaves

- Controlling and documenting the auto-claving processes by capturing the carriers during loading and unloading
- Special data carriers for high temperature, moisture and pressure loads involved in pasteurizing and sterilizing processes
- Optimal control with time stamp

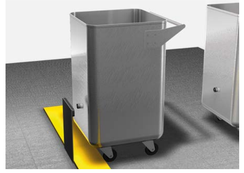


Machine Parts

- Prevention of machine downtime through secure format change
- Operating hours counter for proactive maintenance
- Very economical thanks to connection of up to 32 read/write heads to one interface channel

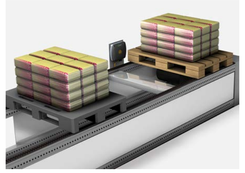
Machine Operators

- Individual permission/access control of the machine through identification of the operator
- More secure than PIN method, that could be spied out and used by unauthorized persons



Stainless Steel Containers

- Tracking of stainless steel containers in the production process
- Wide read/write head with long range and great coverage
- Reliable identification even with inaccurate container position



Pallets

- Tracking of plastic and wooden pallets
- Long range, possible through UHF technology
- The EPAL pallets equipped with RFID as well as the WORLD pallets acording to DIN EN 13698-1 can easily be processed