

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.

Advantage: 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

Advantage: 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, precau-

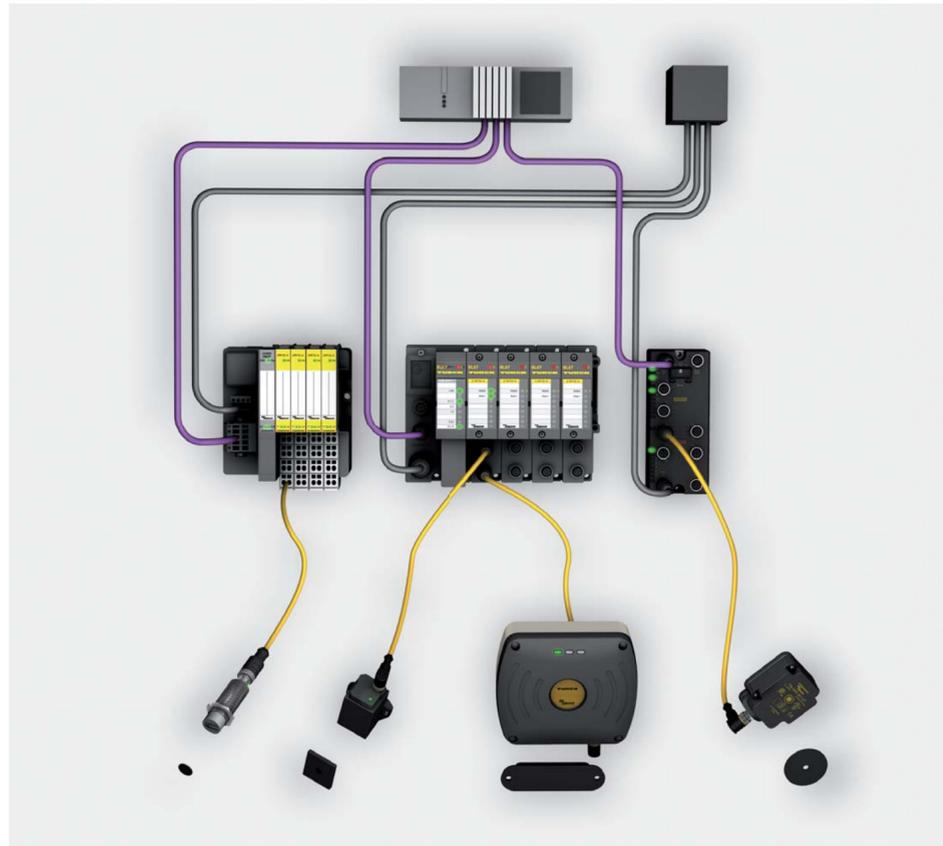
- tionary check based on fixed cycles, or even removal in case of production problems
- Traceability in the case of problems, such as contamination, pathogens or incorrectly labelled ingredients
- Quality assurance by ensuring the cleaning cycles, monitoring of cooling and drying times, time stamp, as well as the simplified process documentation

Advantage: 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

Modular RFID System BL ident®



BL ident® is an all-in-one modular RFID system that plays out its strengths in the food industry. The TURCK I/O systems BL67 (field), BL20 (cabinet) and BL compact (field) are the basic components of the modular concept. 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 combined 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.

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	32 x 20 x 8 mm	HF Technology, extremely compact
	TN-Q14-0.15-RS4.47T	52 x 30 x 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 x 42,5 x 42,5 mm	HF Technology, protection class IP69K, very long range and at the same time compact
	TNSLR-Q80WD-H1147	102 x 83 x 40 mm	HF Technology, protection class IP69K, very long range
	TNLR-Q80L400-H1147	400 x 80 x 25 mm	HF Technology, broad design to capture a larger area or great speeds
	TN865-Q175L200-H1147	200 x 175 x 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-Q51-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

RFID Solutions for the Food Industry



RFID Solutions for Reliable Identification of:



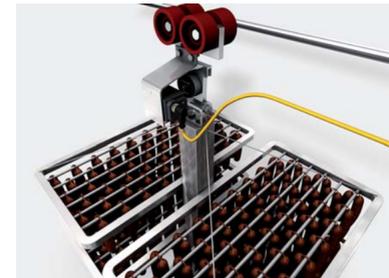
Meat Hooks

- Tracking of meat hooks in the production process
- Data carriers, flush mountable in unslotted hooks
- Read/Write head QM42 with protection class IP69K for reliable identification of the hook under production conditions



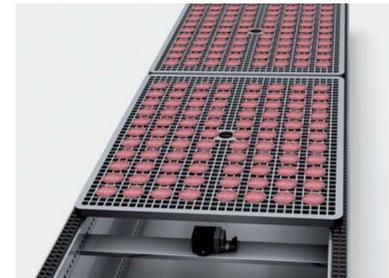
Plastic Boxes at Workstations

- 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



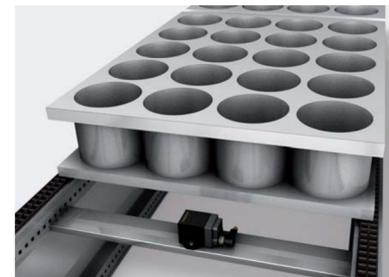
Plastic Boxes for Intralogistics

- 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



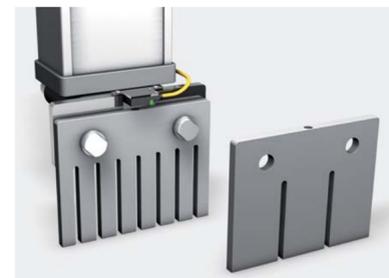
Metal Racks in the Interim Storage Facility

- 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
- Miniature data carriers, flush mountable in metal



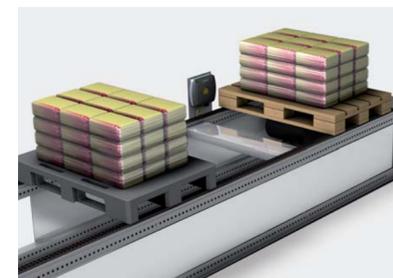
Machine Operators

- 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 according to DIN EN 13698-1 can easily be processed

