

RFID

Radio frequency identification (RFID) transfers data through tags or transceivers, allowing users to read the authenticity onto the tag and write them to a data carrier. With diverse I/O capabilities, TURCK RFID systems provide superior communication and connectivity for maximum performance.



BL ident®

TURCK's *BL ident®* RFID system is an all-in-one RFID system designed for industrial applications. Featuring built-in I/O capabilities, the system is based on TURCK's BL67 on-machine and BL20 in-cabinet modular I/O systems, in addition to the *BL Compact* on-machine block I/O system. *BL ident* offers the following features:

- Consists of data carriers (tags), read/write heads (transceivers), connectivity and communication interface (gateway and RFID modules)
- Multiple fieldbus standards, including PROFIBUS®-DP, Ethernet/IP™, Modbus® TCP, DeviceNet™, PROFINET™, EtherCAT™ and CANopen
- Highest flexibility for system integration
- Addition of I/O modules on the same gateway bus node
- Easy integration in the existing control system
- HF and UHF read/write heads can be connected to the same interface
- Parallel processing of data with up to 16 channels per node
- Rated IP20 and IP67

Interfaces

- Modular concept (BL20 and BL67) with up to 20 channels per gateway
- BL20 for in-cabinet mounting
- BL67 and BL Compact for on-machine mounting
- Cable length to the read/write head up to 50 m
- Versatile and simple fieldbus connection (PROFIBUS-DP, DeviceNet, CANopen, PROFINET, Modbus TCP, EtherCAT, EtherNet/IP)
- Programmable gateways for distributed and/or independent control

Data Carriers

- Small housings, as low as 7.5 mm
- EEPROM data carrier for large quantities
- FRAM data carrier for high-speed transmission and many write cycles
- High temperature data carriers -40 to 300 degrees Celsius
- Data carriers for autoclaves, water-vapor tight up to 121 degrees Celsius
- Direct mounting on metal
- Customer-specific solutions based on open and international standards (ISO 15693 and ISO 18000-6C)

Read/Write Heads

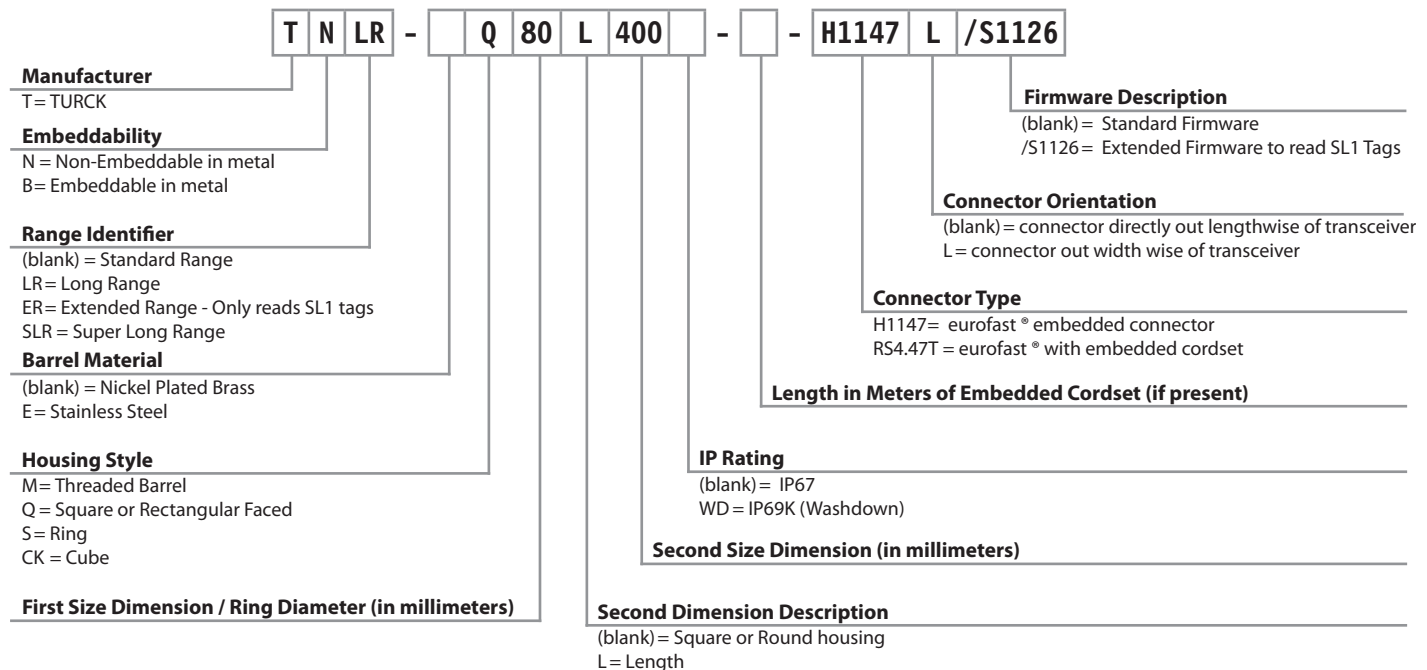
- Robust industrial design
- Fully encapsulated read/write heads
- Read/write distances for HF up to 750 mm
- Read/write distances for UHF up to 6 m
- Wash-Down (IP69K)



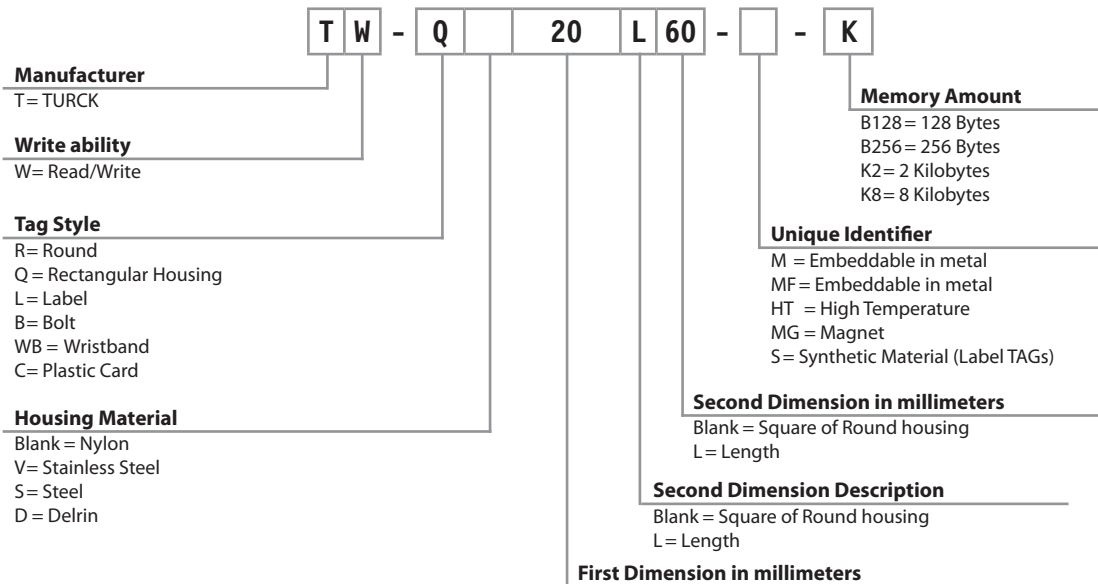
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IDENTIFICATION (RFID)

RFID Transceivers Part Number Key



RFID TAGS Part Number Key



IDENTIFICATION (RFID)

HF TAGS

B128 and B256 TAGs

- EEPROM Memory
- Unlimited Reads
- 100,000 Writes
- 3ms/byte Access Time
- Temperature: -25°C to 85°C Unless Noted
- All TAGs Preprogrammed with Unique Identifier
- ISO 15693 Protocol Standard

K2 & K8 TAGs

- FRAM Memory
- Unlimited Reads
- Unlimited Writes
- 0.5ms/byte Access Time
- Temperature: -25°C to 85°C Unless Noted
- All TAGs Preprogrammed with Unique Identifier
- ISO 15693 Protocol Standard



Housing Style	Part Number	Description
	TW-R4-22-B128	Glass pill form factor, FDA approved
	TW-R7.5-B128	Tiny form factor
	TW-R16-B128	Good temperature response, smallest hardened form factor, 16 mm in diameter
	TW-R16-K2	Good temperature response, smallest hardened form factor, 16mm in diameter
	TW-R20-B128	Rounded hardened epoxy tag, 20mm
	TW-R20-K2	Rounded hardened epoxy tag, 20mm
	TW-R30-B128	Smallest round tag with center mounting hole, 30mm in diameter
	TW-R30-K2	Smallest round tag with center mounting hole, 30mm in diameter
	TW-R50-B128	Largest round hardened epoxy tag, 50mm in diameter
	TW-R50-K2	Largest round hardened epoxy tag, 50mm in diameter

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HF TAGS

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Housing Style	Part Number	Description
	TW-Q20L60-B128	Inexpensive mount on metal option, example of reusing existing parts
	TW-Q51-HT-B128	High Temperature hardened tag up to 210°C
	TW-C56-28-B256	Tag suitable for carrying on key chain
	TW-C74-34-B256	Tag designed for tagging plastic pallets or totes
	TW-C85-54-B256	Credit card style tag

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Housing Style	Part Number	Description
	TW-L36-18-S-B128	Small form factor label tag with adhesive
	TW-L43-43-S-B128	Larger form factor label tag with adhesive
	TW-BP12x1-S-B128	Plastic bolt tag made out of the existing VZ3 plugs
	TW-BS8X1.25-19-K2	M8 Bolt tag in Steel housing with 2 Kbytes of Memory
	TW-BD10x1.5-19-B128	M10 Bolt tag in Delrin Housing with 128 bytes of Memory
	TW-BD10x1.5-19-K2	M10 Bolt tag in Delrin Housing with 2 Kbytes of Memory
	TW-BS10x1.5-19-B128	M10 Bolt tag in Steel Housing with 128 bytes of Memory
	TW-BS10x1.5-19-K2	M10 Bolt tag in Steel Housing with 2 Kbytes of Memory
	TW-BV10x1.5-19-B128	M10 Bolt tag in Stainless Steel Housing with 128 bytes of Memory
	TW-BV10x1.5-19-K2	M10 Bolt tag in Stainless Steel Housing with 2 Kbytes of Memory
	TW-SPP18x1-B128	Small form factor tag that is designed for autoclave applications with slightly elevated heat and pressure requirements

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Housing Style	Part Number	Description
	TW-WB202-15-B128	Rubber wristband with embedded RFID tag for personnel tracking
	TW-R50-MG25-B128	R50 tag mounted to a spacer and 25lb pull magnet for easy installation

UHF TAGS

- EEPROM Memory
- Unlimited Read Operations
- 100,000 Write Operations
- Temperature Range -40° to +80°C(unless noted)
- ISO 18000-6C, EPC Global Gen 2 Protocol Standards



Identification (RFID)

Housing Style	Part Number	Description
	TW902-928-R50-B110	Round hardened epoxy tag with mounting hole
	TW860-960-Q51-HT-B110	High temperature hardened tag

IDENTIFICATION (RFID)

UHF TAGS

- EEPROM Memory
- Unlimited Read Operations
- 100,000 Write Operations
- Temperature Range -40° to +80°C(unless noted)
- ISO 18000-6C, EPC Global Gen 2 Protocol Standards



Housing Style	Part Number	Description
	TW860-960-Q27L97-M-B112	Suited for outdoor applications. Direct mounting on metal
	TW902-928-Q14L60-M-B110	Plastic housing. Direct mounting on metal
	TW902-928-Q27-M-B112	Small housing. Only for direct mounting on metal
	TW860-960-Q25L77-B-B112	Flexible plastic housing for mounting on curved or irregular surfaces
	TW865-928-L76-18-21-F-M-B110	Label for direct mounting on metal
	TW860-960-L97-15-F-B28	Low cost adhesive sticker tag

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HF Transceivers

- Robust Industrial Design Based on Field-proven Housings
- Fully Encapsulated Design for IP67, IP68 and IP69K Environments
- Several HF Options Available for Flexible Read/Write Ranges, Mounting Configurations, and Environments
- Shielded Serial Communication to the Fieldbus Level Allows for Remote Mounting up to 50m
- Compact UHF Read/Write Heads for Long-range Applications
- Hazardous Location Options Available



Housing Style	Part Number	Description
	TN-Q14-0.15M-RS4.47T	Small 14mm flat sensor housing with built in cordset
	TB-M18-H1147	18mm Barrel housing completed shielded for flush mounting
	TN-M18-H1147	18mm Barrel housing unshielded for non-flush mounting
	TB-M30-H1147	30mm Barrel housing completed shielded for flush mounting
	TN-M30-H1147	30mm Barrel housing unshielded for non-flush mounting

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Housing Style	Part Number	Description
	TN-CK40-H1147	40mm Cube sensor housing with rotatable connector
	TNSLR-Q42TWD-H1147	42mm Cube sensor housing tuned for longer ranges
	TN-Q80-H1147	80mm puck sensor housing
	TN-S32XL-H1147	100mm ring sensor housing

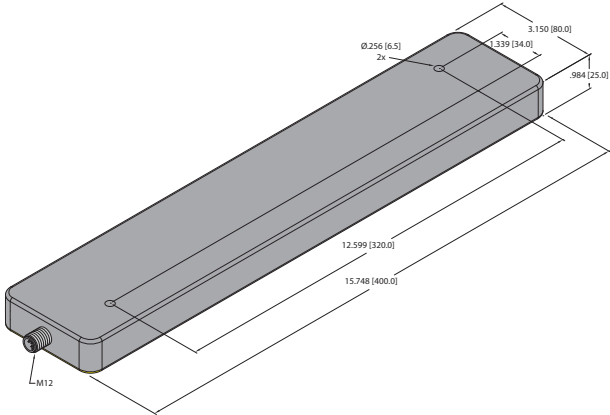
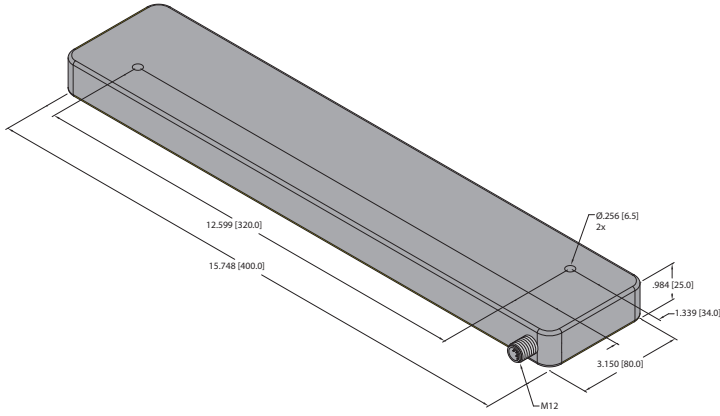
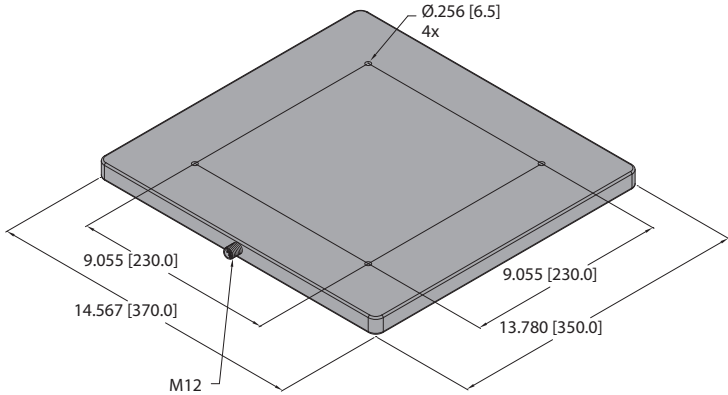
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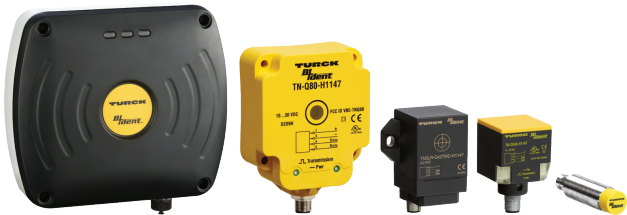
Housing Style	Part Number	Description
	TNLR-Q80L400-H1147	400mm x 80mm long sensor housing for use on roll conveyors
	TNLR-Q80L400-H1147L	400mm long sensor housing with M12 connector mounted on side of housing instead of end of housing
	TNLR-Q350-H1147 TNSLR-Q350-H1147	350mm x 350mm large sensor housing for long range 350mm x 350mm large sensor housing with special hardware and firmware for extra long range

Identification (RFID)

IDENTIFICATION (RFID)

UHF Transceivers

- Robust Industrial Design Based on Field-proven Housings
- Fully Encapsulated Design for IP67 Environments
- Several HF Options Available for Flexible Read/Write Ranges, Mounting Configurations, and Environments
- Shielded Serial Communication to the Fieldbus Level Allows for Remote Mounting up to 50m
- Compact UHF Read/Write Heads for Long-range Applications
- Hazardous Location Options Available



Housing Style	Part Number	Description
	TN902-Q240L280-H1147	240 mm x 280 mm housing for long range applications
	TN902-Q175L200-H1147	175 mm x 200 mm smaller housing

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Handhelds

- Mobile Reading and Writing Data to TURCK Data Carriers
- Handheld for Programming
- Customized Software Solutions on Request
- Bluetooth Interface
- IP65
- Included Docking Station with Power Supply



Part Number	
PDA67-IDENT-INT-HF	RFID Software for reading and writing, fold-out antenna
PD-IDENT-WLAN	RFID Software for reading and writing, fold-out antenna, WLAN
PD-IDENT-HF-RBTW	HF RFID Handheld, RFID-OEM software demo, Microsoft CE 5, barcode and GPS options
PD-IDENT-HF-RBSUP	HF RFID Handheld with Pistol Grip, barcode options available
PD-IDENT-UHF-RBTW-915-920	UHF RFID Handheld, RFID-OEM software demo, Microsoft CE 5, barcode and GPS options

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