

Your Global Automation Partner

# TURCK

## RFID Systems Logistics and Manufacturing



# A Global Leader in Industrial Automation

Turck's sensors, connectivity, fieldbus technology and RFID products are built to be the best. As one of the most **prominent** sensor manufacturers **in the world**, we even back our sensors with a **generous warranty**. Turck works by bringing **rugged engineering** solutions to your industrial automation applications.

**85,000+**  
SOLUTIONS

**50+**  
YEARS OF INNOVATION

**2,000+**  
EXPERIENCED SALES REPRESENTATIVES

Pioneer in non-contact  
**sensing** technology

Developed innovative **connectivity**  
solutions in response to our customers' needs

Recognized the need for advanced **I/O solutions**  
in harsh duty environments

**SUPPORT &  
DEDICATED SERVICE**

**EXTENSIVE WARRANTY**

 **4,000+**  
APPLICATION EXPERTS

RESPOND  
and SOLVE **over 1,200** inquiries  
per day



Strategically placed manufacturing facilities in the

**USA** with **30** GLOBAL  
SUBSIDIARIES

**GLOBAL BUT LOCAL...**

**60** representations worldwide



## Your Global Identification Partner

### Improve Inventory Control & Asset Management

The rising need for real-time visibility and end-to-end asset tracking and inventory management is critical. Gone are the days of relying on manual processes to locate assets or count inventory. Get a smarter supply chain with Turck.

Manufacturers will need more visibility in real time, including material stock and inventory tracking at suppliers and assembly plants to minimize disruption, reduce waste and emissions. To achieve visibility at scale, manufacturers must automate part and inventory identification, and ensure data is seamlessly connected across the supply chain.

### Feed your Supply Chain Accurate, Real-time Data

From defining your processes to correct tag selection – Our RFID experts are there for you.

Turck has partnered with Vilant Systems, a leading RFID integrator, to strengthen its range of RFID hardware, software, systems and services. Now customers have access to a wider range of RFID solutions through Turck Vilant Systems. Our solutions allow users to identify target objects easily and to trace the digital footprint they leave. This data helps you to redefine your operations, to build new business and to achieve new levels of efficiency, which results in real business benefits.

## RFID for a Smarter Supply Chain



Quickly and accurately identifies products and parts across high option variation



Connects data to manufacturing systems, warehouse operations and IoT in the Cloud or locally



Identifies products and parts across pallets and bulk shipments without continuous counting



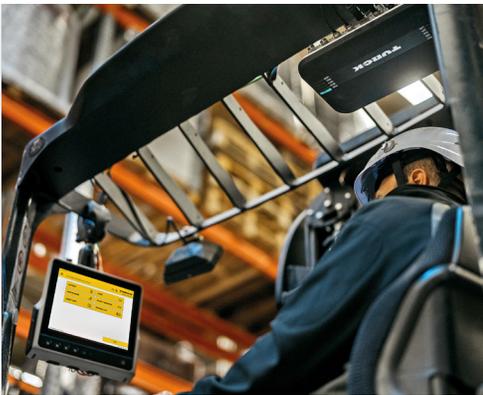
More durable than relying on physical codes and labels

## RFID System Solutions



### RFID Gate System

Improve inventory tracking and management and gain more visibility to material consumption with Turck's turnkey UHF RFID Gate system. Mounted over a warehouse dock door frame or within a factory, items going through the gate are captured and recorded simultaneously into your ERP system or into a Cloud server. To eliminate the possibility for stray reads when multiple dock doors and gates are next to one another, Turck Vilant has developed advanced algorithms based on signal characteristics so read accuracy is ensured.



### RFID Forklift System

The Turck Vilant RFID Forklift system consists of the Turck Vilant Forklift Client and suitable RFID reader, antennas and accessories all delivered together to best fit your application. Running locally on a reader, tablet, or forklift PC, this application has specially designed algorithms that detect each item on the fork as well as exactly where the forklift moves. The data collected with the Client is forwarded to Turck Vilant Server for further processing or directly to your business application such as a Warehouse Management System or ERP.



### RFID Conveyor System

Ideal for conveyor belts and stationary read points, RFID solutions from Turck can be configured on a conveyor to reduce pick errors, delivery mistakes and product loss. The solution can be mounted in a variety of ways to avoid obstructing products on the belt. The system can also help detect bottlenecks in the line and other operational inefficiencies. The data is captured in real time and can detect product at high conveying speeds.



### RFID Enabled Stockroom

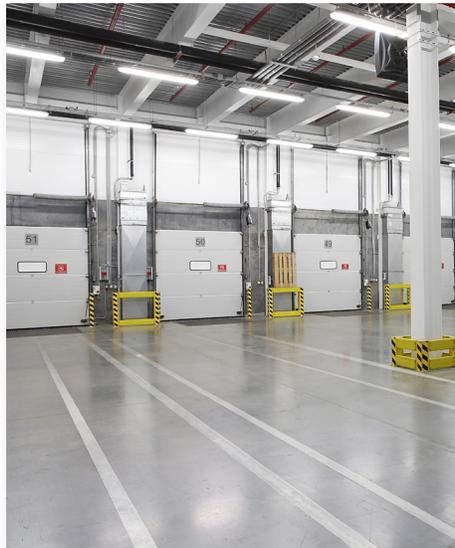
Keep production lines running with a smart on-site stockroom that uses RFID to create a faster and easier way to replenish high-use parts and materials. It's simple - let RFID do all the work for you - no extra staffing needed for this stockroom and maintenance, repair and operation (MRO) solution. Products taken from the on-site stockroom are automatically scanned by UHF RFID in the Read Area. The system manages your users, SKUs, inventory and locations. It also offers usage and invoicing data. Thanks to this solution, a variety of products such as spare parts, tools, raw materials, repair supplies and work wear can be available 24/7.

# Industries & Applications



## Warehouse Management

Improve inventory tracking and management and gain more visibility to material consumption with our turnkey RFID systems



## Shipping and Receiving

Automatic inbound and outbound tracking, floor storage, inventory, picking, shipment verification and intelligent self-service storage



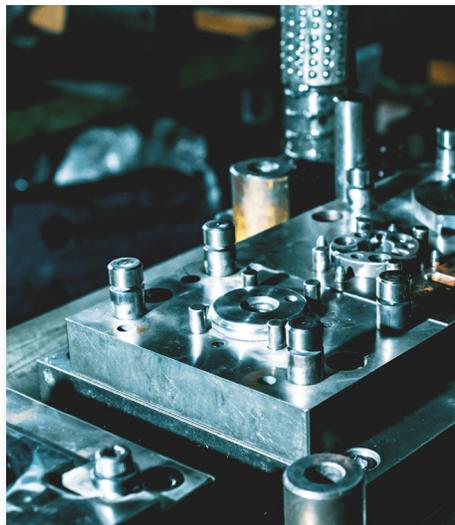
## Material Tracking

Automate material use and replenishment as well as improve tracking. Reduce costs and waste while streamlining material flow throughout your operations



## Yard Management

Vehicle access control, laydown yard management, weighing, vehicle-based container/bag identification



## Capital Asset Tracking

Gain better visibility into your high-value assets. Monitor equipment and machines with RFID, reducing loss and confusion



## MRO Tracking

Keep track of parts and materials for maintenance, repair and operations. Never run out of critical supplies

# RFID Services

Turck offers a wide range of services to ensure your RFID project runs smoothly. We also help with defining your project and assessing and setting your project RFID goals.



RFID Antenna & Tag Testing

Our test lab has an anti-echo chamber and best-in-class test equipment, which provides us with reliable data about tag and antenna performance.



Project Management

During your RFID project, a capable and experienced project manager will coordinate, document, define and drive your RFID project.



Training

Once a project moves to the production phase, it will be time to train your team. Our expert trainers will give you all the tools to pass your RFID knowledge to the rest of your company.

# RFID Software

Boost accuracy and efficiency with Turck Vilant's RFID software. Whether you are performing asset tracking or inventory management, our proprietary software helps streamline these critical workflows from beginning to end. Depending on the device or system, we can install and configure all software necessary for the application. Two configuration options ensure application flexibility.



## Global Team of Experts

Deployments of software for RFID systems are managed by our global team of expert developers, engineers and qualified staff, ensuring your installation is smooth.



## Simple User Interface

The easy-to-use software interface has application-specific functionality, including direction detection and location-based shipping and receiving. Graphs and maps provide a detailed overview in a visual display.



## Flexible Configuration Options

Powered by our unique software, Turck Vilant server applications can either be hosted by Turck Vilant Systems or integrated locally on a server or Cloud provided by the customer. Customers who use CAN-based software can rest assured that our system will integrate into their enterprise. Both server applications have a web-based user interface and provide flexible user management.

- Turck Vilant Visibility Manager is designed for data consolidation, data mining and includes an integration layer with support for most common ERP and WMS systems.
- Turck Vilant Device Manager handles the RFID system health and system maintenance.

# RFID Support and Process

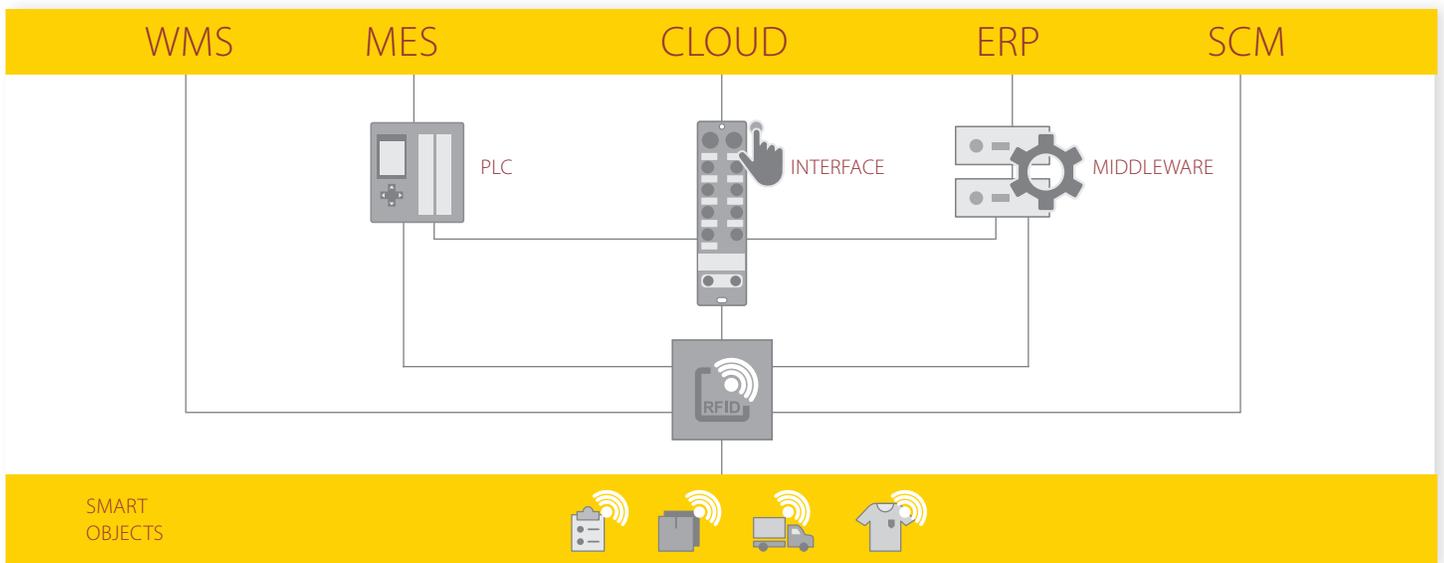
From defining your processes to helping with the correct tag selection – our RFID experts are there for you. A successful RFID project starts with a site survey conducted by our experts, follows our 5-step model to success, and when implemented, continues to run smoothly with our 24/7 support. Our experience ensures your success.

## Customer Decision Point

SITE SURVEY	FEASIBILITY	PILOT	PRODUCTION	SUPPORT
1 Day Site Survey Process Audit	2-5 Day Quick Proof of Concept Improved Process Concept	1-3 Month Pilot Discussion of ROI	Complete Turnkey Production	Global On-Call 24/7 Support

# How Objects Become Smart Objects

RFID connects physical objects with records and IT systems. No matter what type of object you want to link to your individual system landscape - we create the connection.



## Key technology for digitization

A prerequisite for IIoT is the use of intelligent industrial components that allow physical objects in production logistics to be present on the Internet. It doesn't matter whether it's containers with raw materials, components, preliminary products or finished products - equipped with RFID tags, all components can communicate with each other as smart objects in the network. This makes RFID a key technology of the IIoT.

## Smart object data when you need it

The information from each smart object is obtained via strategically placed reading points. Depending on the application, it is passed on directly to higher-level systems such as an ERP or reach the PLC or Turck Vilant middleware via an interface. In this way, Turck's system solution brings the smart object data to the level of corporate applications and factory automation systems. From there, relevant information for your processes and decisions is generated in the appropriate context.

# TURCK



30 subsidiaries and over  
60 representations worldwide!

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