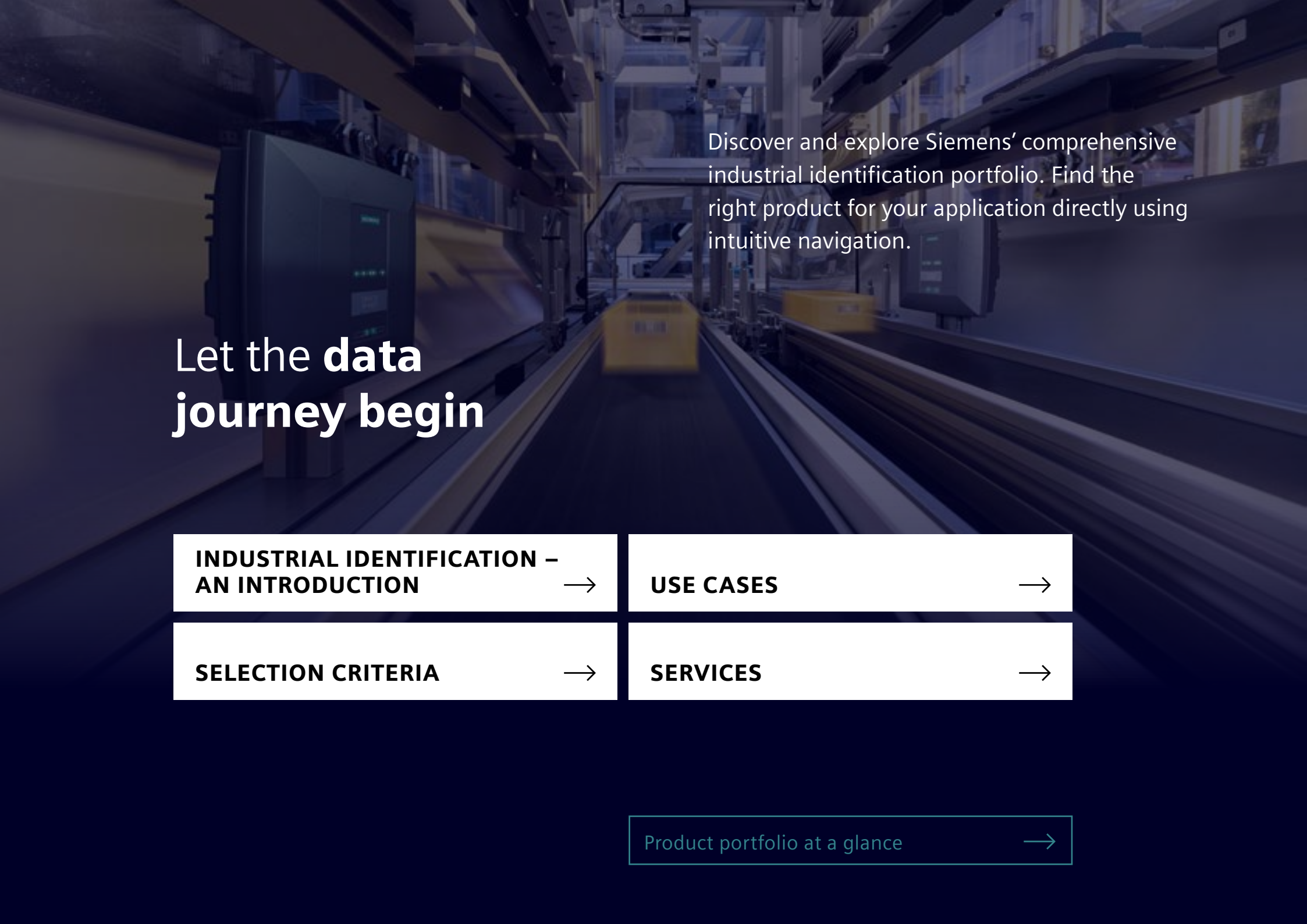
SIMATIC IDENT

Industrial identification for company-wide data intelligence

siemens.com/ident

SIEMENS



Discover and explore Siemens' comprehensive industrial identification portfolio. Find the right product for your application directly using intuitive navigation.

Let the **data journey begin**

INDUSTRIAL IDENTIFICATION – AN INTRODUCTION →

USE CASES →

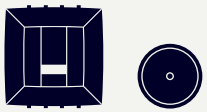
SELECTION CRITERIA →

SERVICES →

Product portfolio at a glance →

Industrial identification: Enabler for the IIoT

Industrial identification turns a regular object into a smart object. It makes it possible to read these objects and exchange data with them. This integrates the objects not only in automation, but also in the Industrial Internet of Things (IIoT), and makes industrial identification a key technology for the digital transformation.



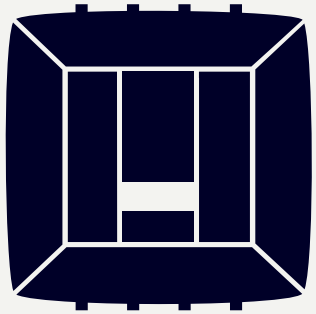
Radio Frequency Identification (RFID)
RFID is based on radio waves. A reader communicates contactlessly with a data storage device – also known as a transponder, tag, or SmartLabel – attached to the object. The data exchange requires no line-of-sight connection between the read/write device and the transponder. Because transponders need no energy storage (such as a battery), RFID is especially eco-friendly.

Optical identification (OID)
For OID, a camera is the central element in the fast, accurate reading and verification of various codes and in object recognition. Its purpose is to seamlessly track products and components across the entire value chain. Reflective or soiled surfaces, difficult lighting conditions, and different reading ranges are no problem.

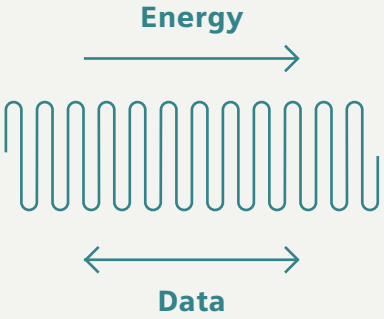
How RFID works

Wireless technology for locating and tracking objects.

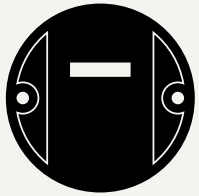
Reader



Integrated or external antenna



Transponder

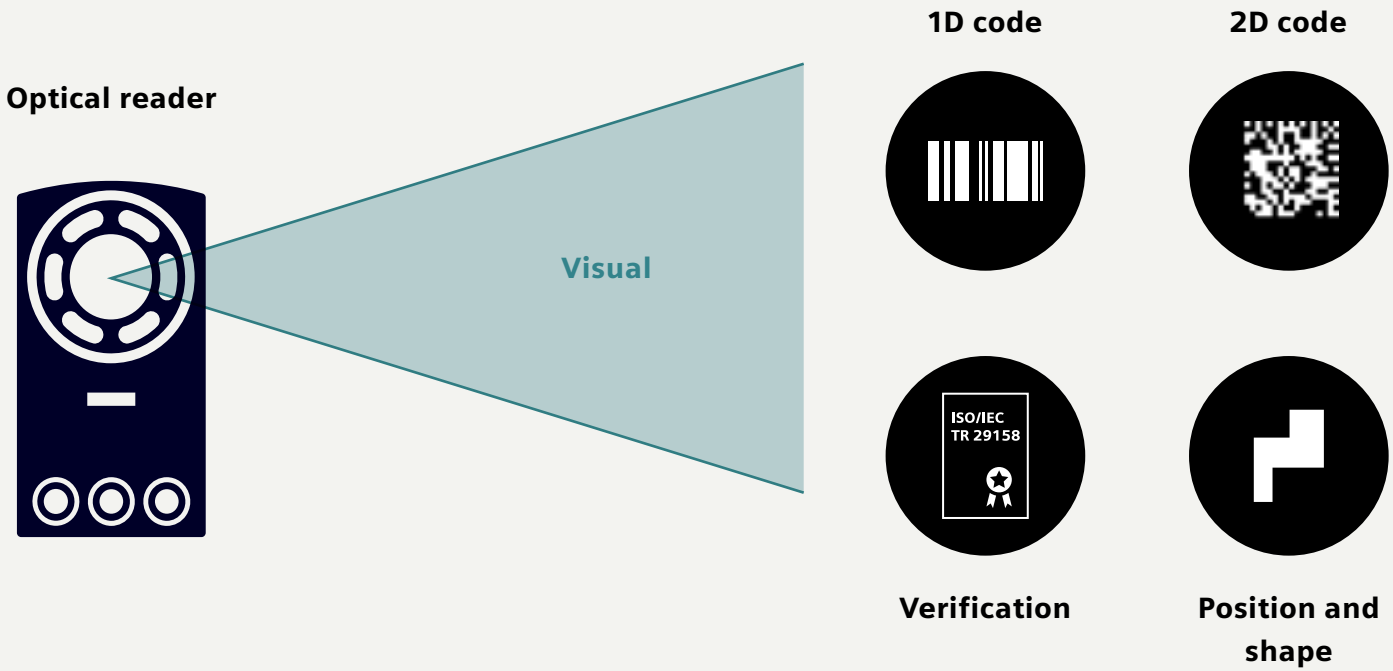


Integrated antenna and memory

- Reads and writes – no direct line of sight required
- Possible to read multiple transponders simultaneously
- Passive transponders (without battery), hard tags, and labels for a variety of applications

How OID works

Optical technology for identifying objects.



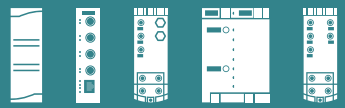
- Direct line of sight required
- Code reading, object recognition and verification
- Direct identification of products and components
- Printed, lasered, or dot-peened

Our product portfolio at a glance

Integration

Communication modules for various integration options

SIMATIC RF100C



Direct integration on the device

OPC UA

EtherNet/IP

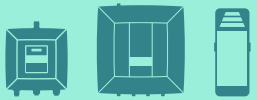
PROFIBUS

PROFINET

Radio Frequency Identification (RFID)

Readers

Short ranges (HF)	Short ranges (HF)	Long ranges (UHF)	Access control (LF/HF)
SIMATIC RF200	**SIMATIC RF300**	**SIMATIC RF600**	**SIMATIC RF1000**
Works quickly and flexibly and is especially cost-efficient	Equipped with a large memory and transmits data at record speed	Reliably tracks thousands of objects	Handles access management using existing employee IDs



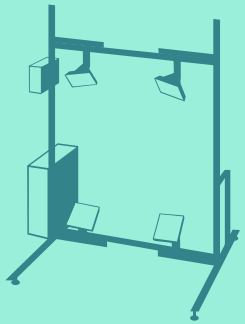
Antennas

Transponders

SIMATIC Ident Systems

Complete, pre-configured, ready to use systems for identifying and tracking objects

SIMATIC Ident CB Gate



Optical identification (OID)

Code reader, including object recognition and verification

SIMATIC MV500

Reliably reads at record speed, even under difficult conditions

SIMATIC MV300

Sits comfortably in your hand and suitable for mobile use

If you need help with the selection of SIMATIC Ident components, you can use the TIA Selection Tool:
www.siemens.com/tst

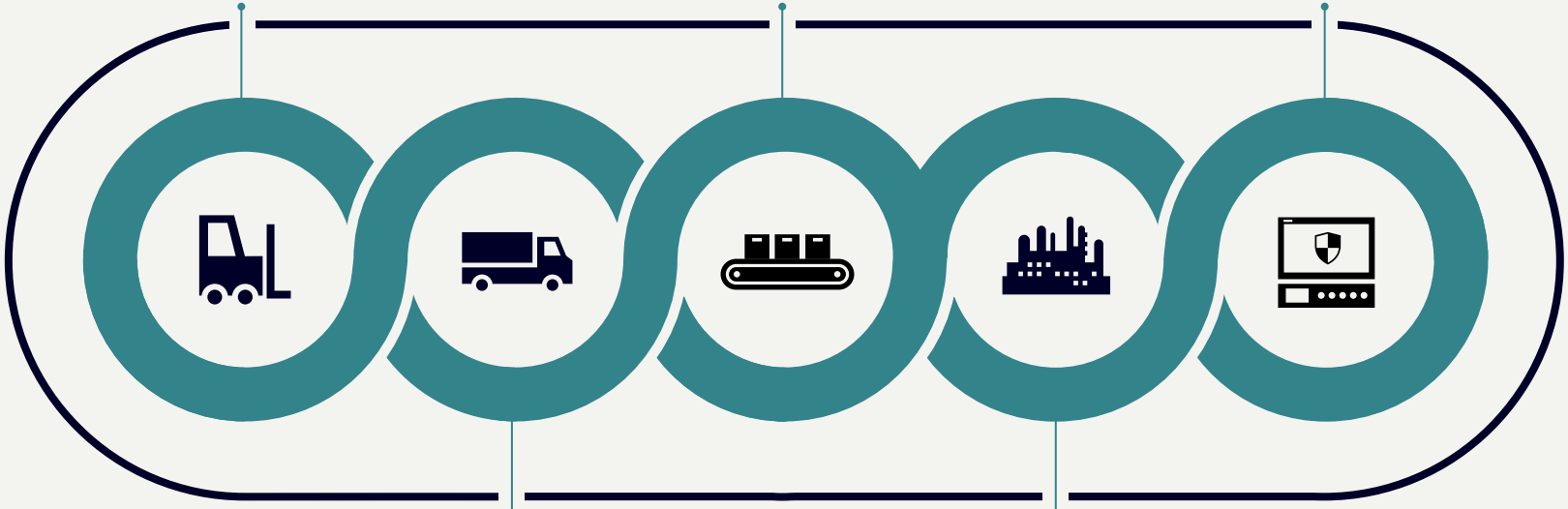
Areas of application for industrial identification

The potential applications for industrial identification vary widely and are highly beneficial for many industries.

Asset management
Real-time inventory and status information

Industrial automation
Material flow control in production

Access control
Protection of the machine fleet against unauthorized access



Industrial identification

Tracking and tracing
Digital tracking and tracing of products and their components

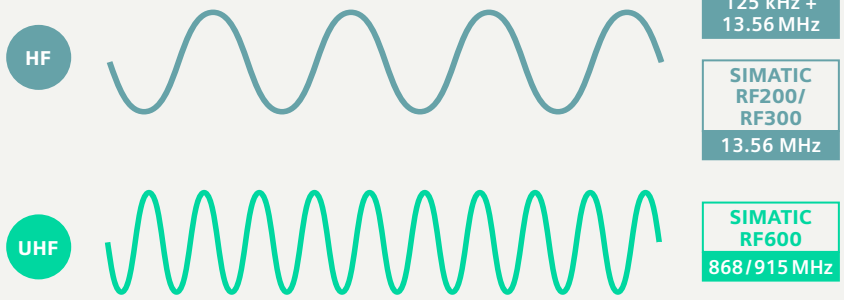
Supply chain management
Transparency across the entire value chain

Basic characteristics of RFID technology

Each SIMATIC Ident RFID family has characteristics that are designed for a specific application area. The following graphics provide an overview of which reader and transponder combinations are recommended for which area of application.

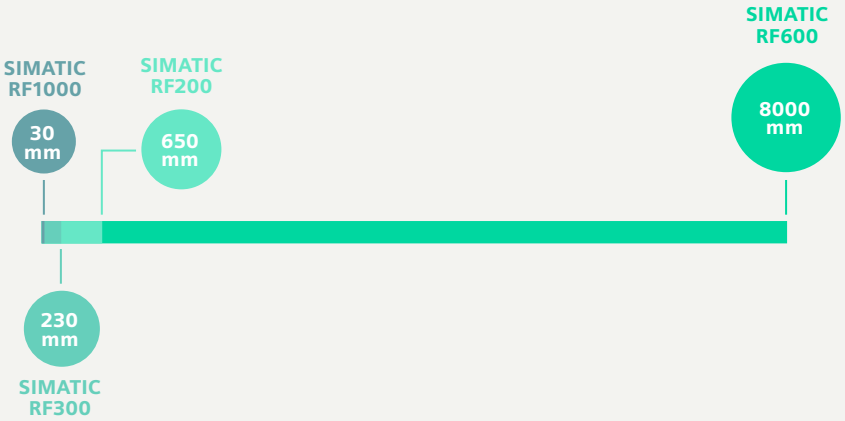
Technology

As part of our extensive SIMATIC RF portfolio, we offer you systems for the HF and UHF range.



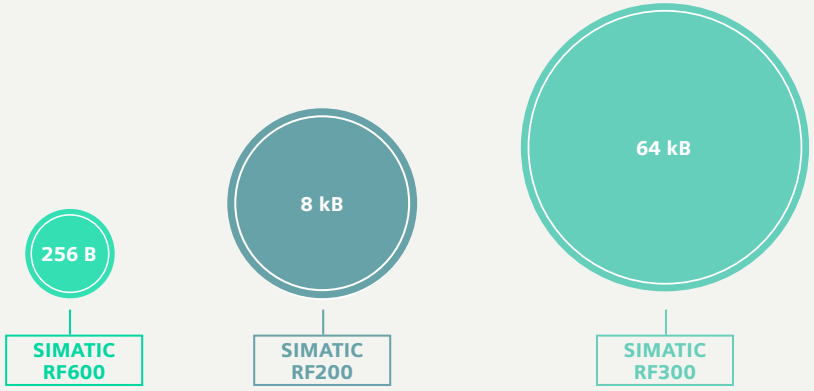
Range

The distance between the reader and transponder must be taken into account when selecting the RFID system.



Storage capacity

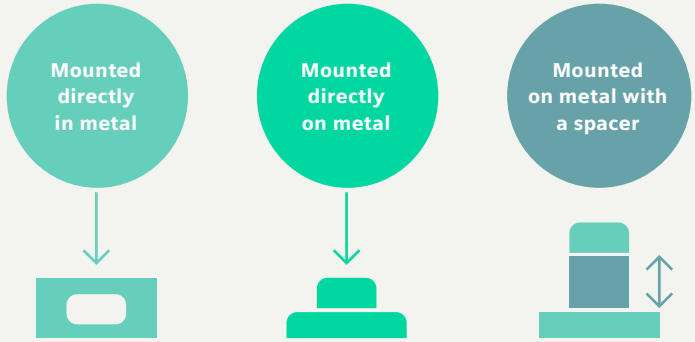
Storage capacity refers to how much data can be stored on a transponder.



Basic characteristics of RFID technology

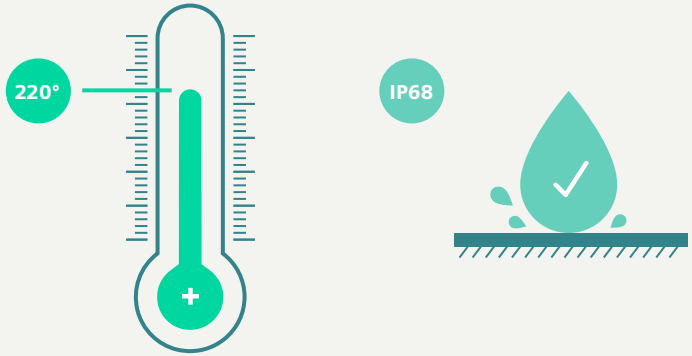
Attachment to metal

To select the right RFID solution, it's important to know how the reader and transponder will be attached to metal.



Environment

The specific environmental conditions vary as widely as the applications themselves.

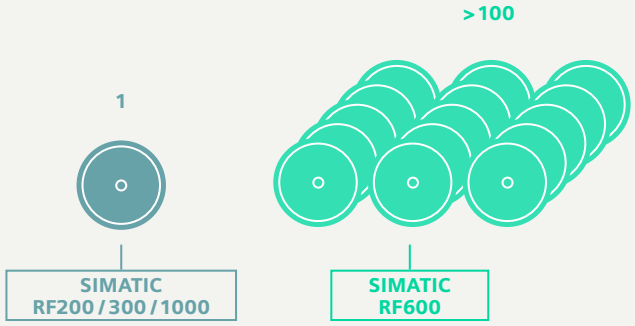


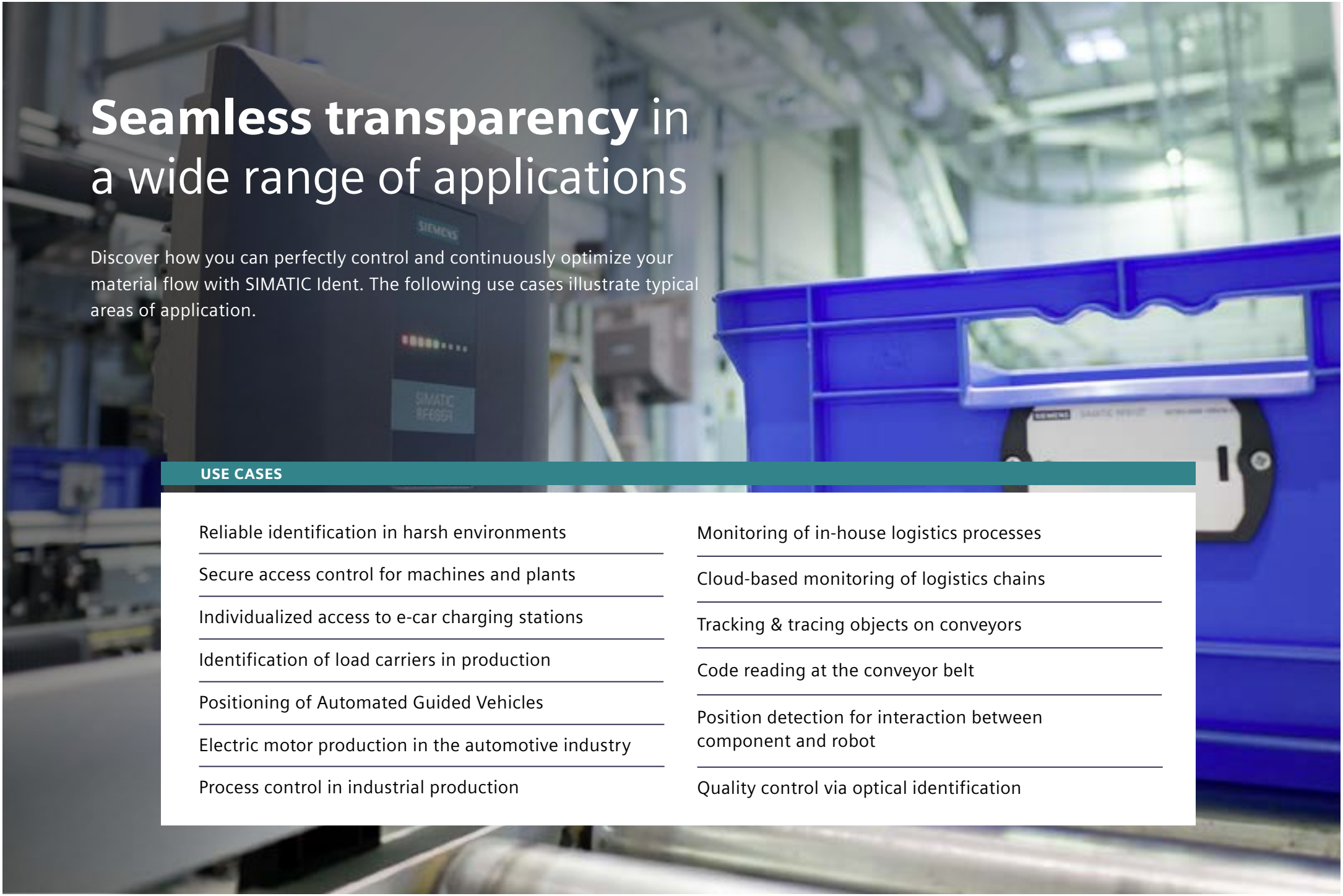
Read / write speed

The speed at which the transponder moves through the radio field also needs to be taken into account.

Multitag / bulk capability

Selecting the optimal RFID system also depends on the number of transponders that occupy the radio field at one time.





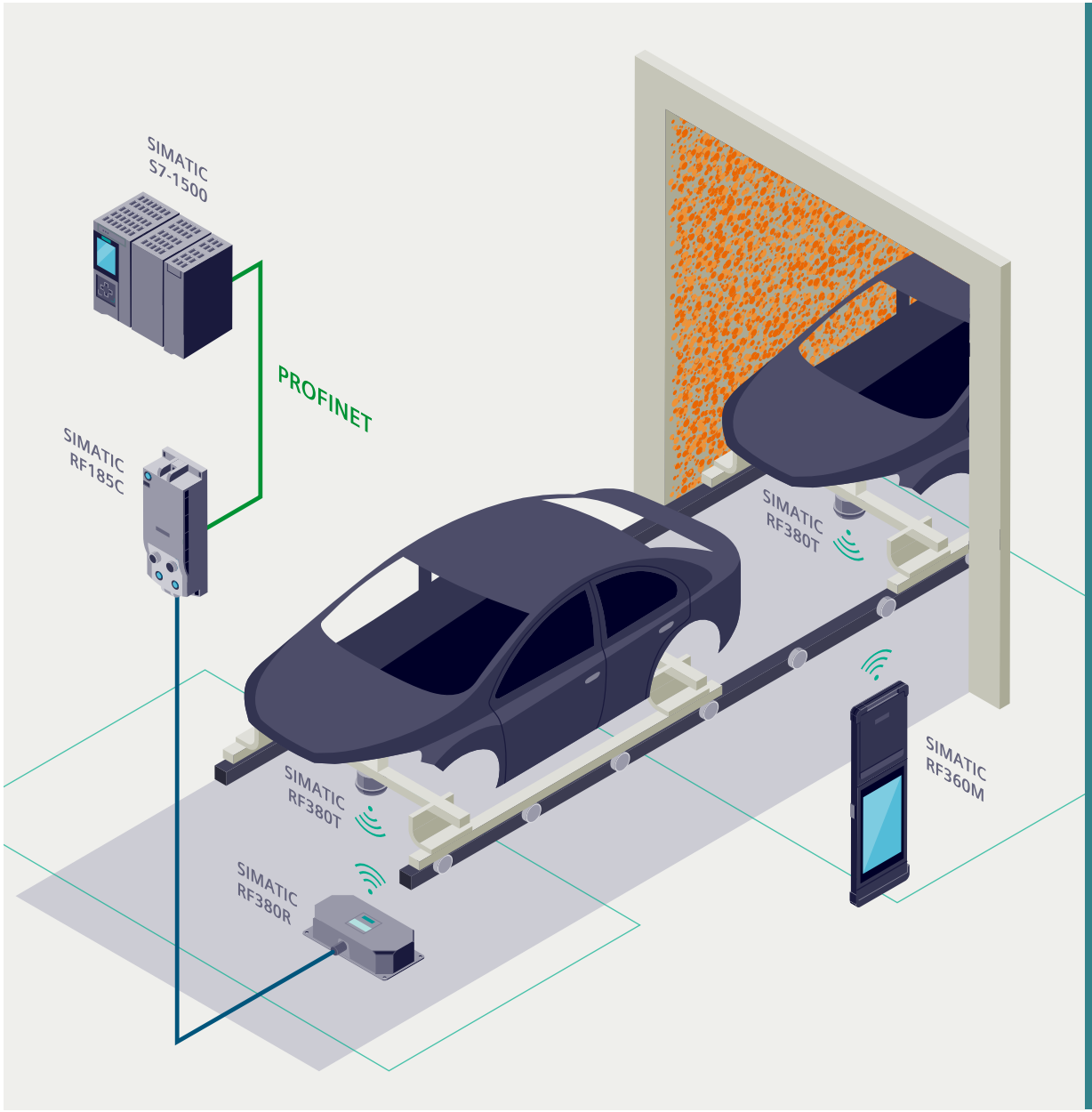
Seamless transparency in a wide range of applications

Discover how you can perfectly control and continuously optimize your material flow with SIMATIC Ident. The following use cases illustrate typical areas of application.

USE CASES

- Reliable identification in harsh environments
- Secure access control for machines and plants
- Individualized access to e-car charging stations
- Identification of load carriers in production
- Positioning of Automated Guided Vehicles
- Electric motor production in the automotive industry
- Process control in industrial production
- Monitoring of in-house logistics processes
- Cloud-based monitoring of logistics chains
- Tracking & tracing objects on conveyors
- Code reading at the conveyor belt
- Position detection for interaction between component and robot
- Quality control via optical identification

Reliable identification in harsh environments



Task

Unambiguous identification of skids and car bodies for order-specific color selection and application under extremely challenging environmental conditions, such as the use of chemicals and drying processes at temperatures of up to 220 °C.

Solution

The SIMATIC RF380R reader mounted on the plant floor reads / writes the production data stored on the SIMATIC RF380T transponder. For maintenance purposes, this data can also be read using the SIMATIC RF360M mobile handheld reader.

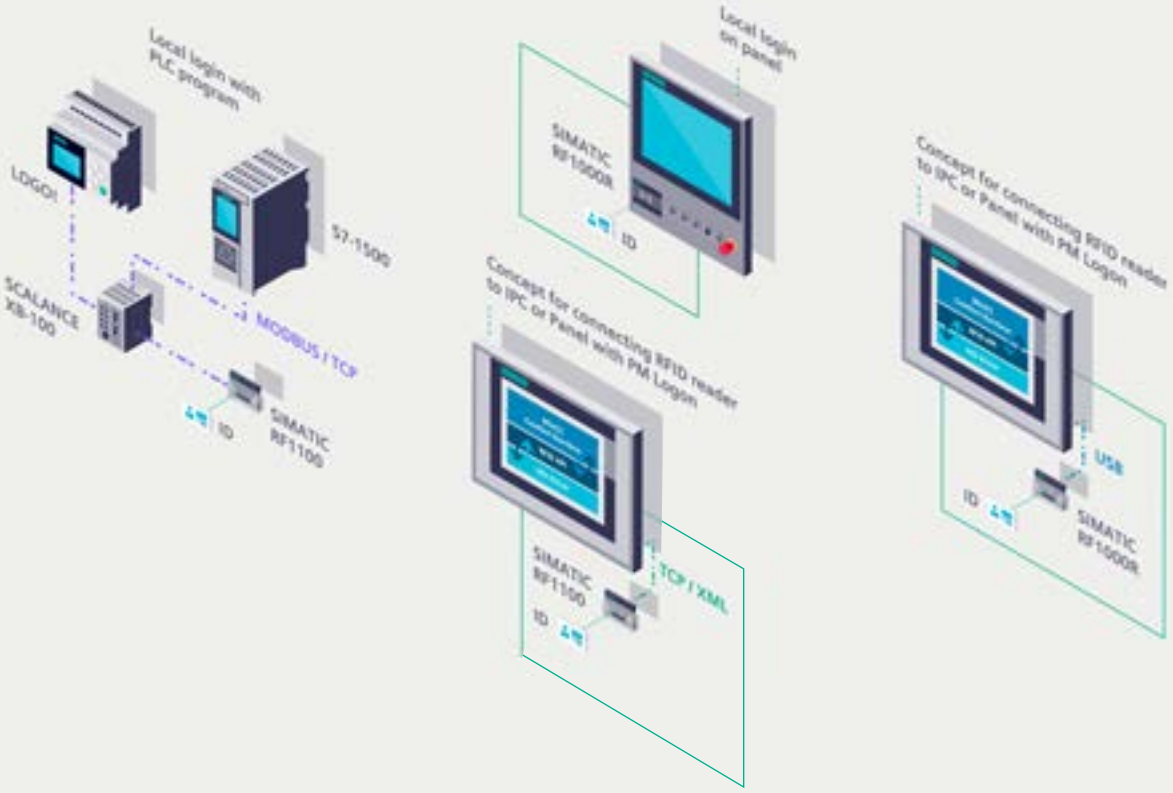
Benefits

- Reliable identification even in harsh environments
- High security of investment thanks to durable and robust components
- Greater quality / productivity thanks to continuous identification at every workstation
- High plant safety thanks to Ex-certified components
- Distributed data storage thanks to the high storage capacity of transponders

Click the icons for more information

SIMATIC RF300 Readers | SIMATIC RF300 Transponders | Integration

Secure access control for machines and plants



Task

Unambiguous identification of operators at machines and plants for controlling access and establishing an audit trail.

Solution

Based on existing employee IDs, readers in the SIMATIC RF1000 series permit simple and flexible implementation of electronic access control and management. This increases user-friendliness and reduces costs.

Benefits

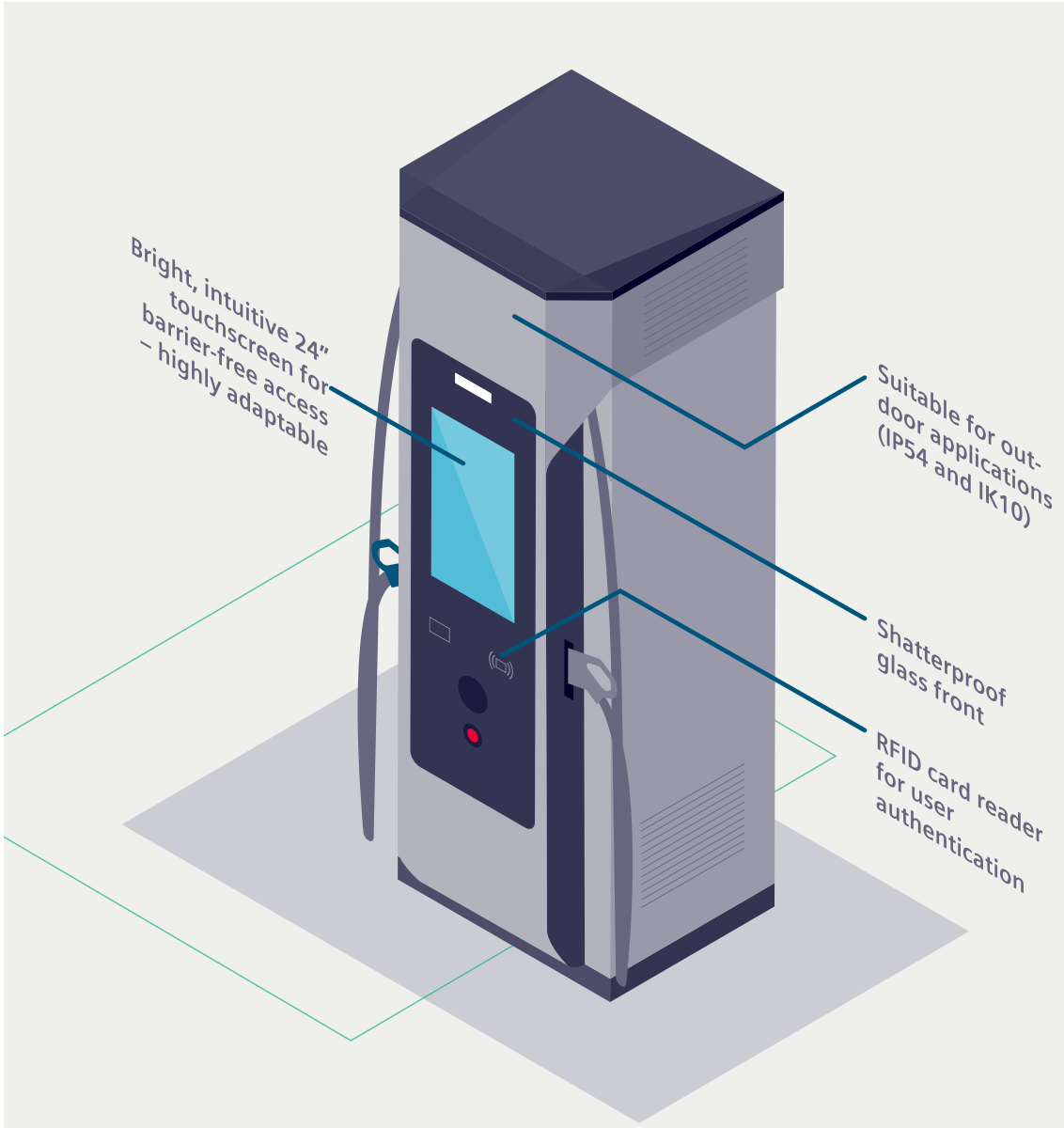
- Maximum process reliability and efficiency
- Enhanced process security and transparency
- Easy integration in existing hardware (HMI devices, IPCs, and panels)
- Prevention of operating errors thanks to secure and documented access
- Individualized, central assignment of user authorizations
- Traceability of parameter changes
- Generation of customer-specific reader configurations

Click the icons for more information

SIMATIC RF1000 Readers

ID

Individualized access to e-car charging stations



Task

Reliable authentication of e-car users at charging stations.

Solution

The robust SIMATIC RF1000 reader enables simple and reliable user identification. The system can be used for logging the user in at a charging station.

Benefits

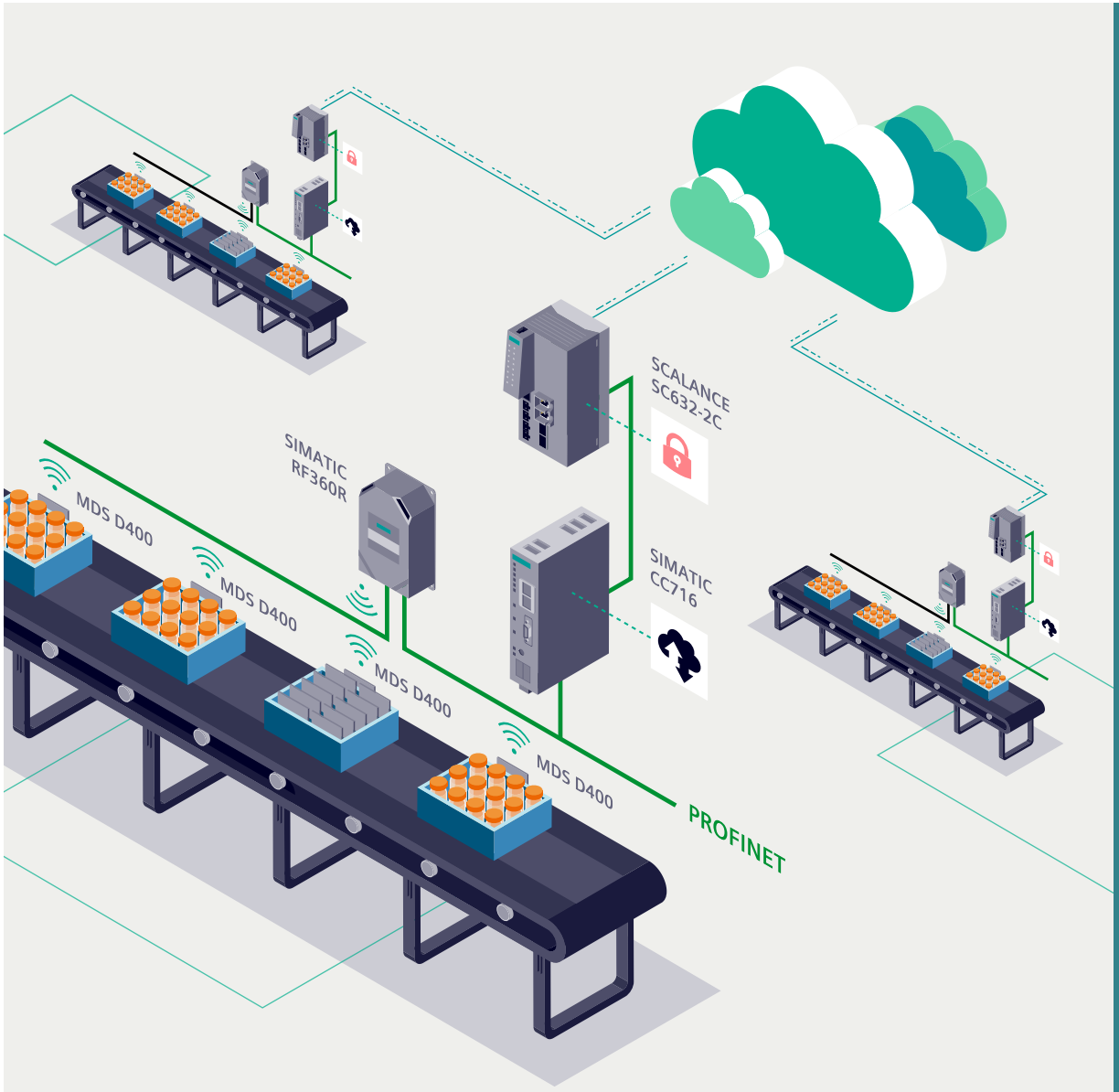
- Extreme reliability
- Storage of encrypted information on the card
- High data transfer rates

Click the icons for more information

SIMATIC RF1000 Readers

ID

Identification of load carriers in production



Task

Track production and logistics processes when manufacturing valuable products in order to prevent counterfeits and recalls as well as distribution and process errors.

Solution

Installation of SIMATIC RF360R readers at all production and transfer locations and MDS D400 transponders on load carriers. This makes it possible to seamlessly track and document each individual product during production and after logistics processes.

Benefits

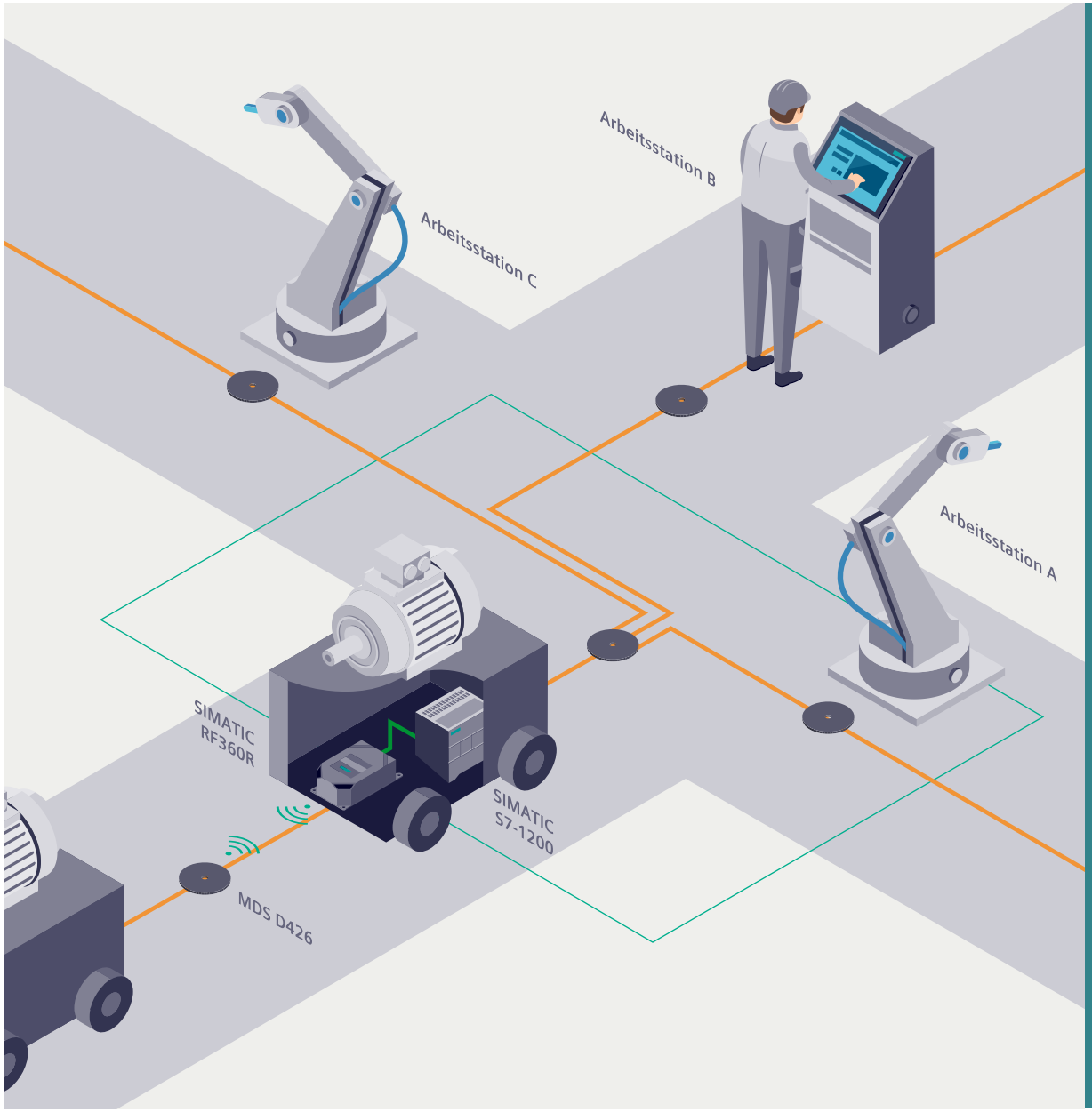
- Possibility of unambiguous traceability
- Faster processing at each production location when implementing the serialization project
- Prevents the sale of counterfeit products via the supply chain (piracy protection)

Click the icons for more information

SIMATIC RF300 Readers

SIMATIC RF300 Transponders

Positioning of Automated Guided Vehicles



Task

As a megatrend, customization is responsible for highly dynamic markets worldwide. Flexibility is becoming a key success factor in many industries. As a result, Automated Guided Vehicles (AGVs) are becoming more and more important as mobile workpiece carriers.

Solution

A SIMATIC RF360R reader is attached to the underbody of the AGV and MDS D426 transponders are integrated in the hall floor along its route. When the AGV drives over these transponders, the AGV's controller detects its current position.

Benefits

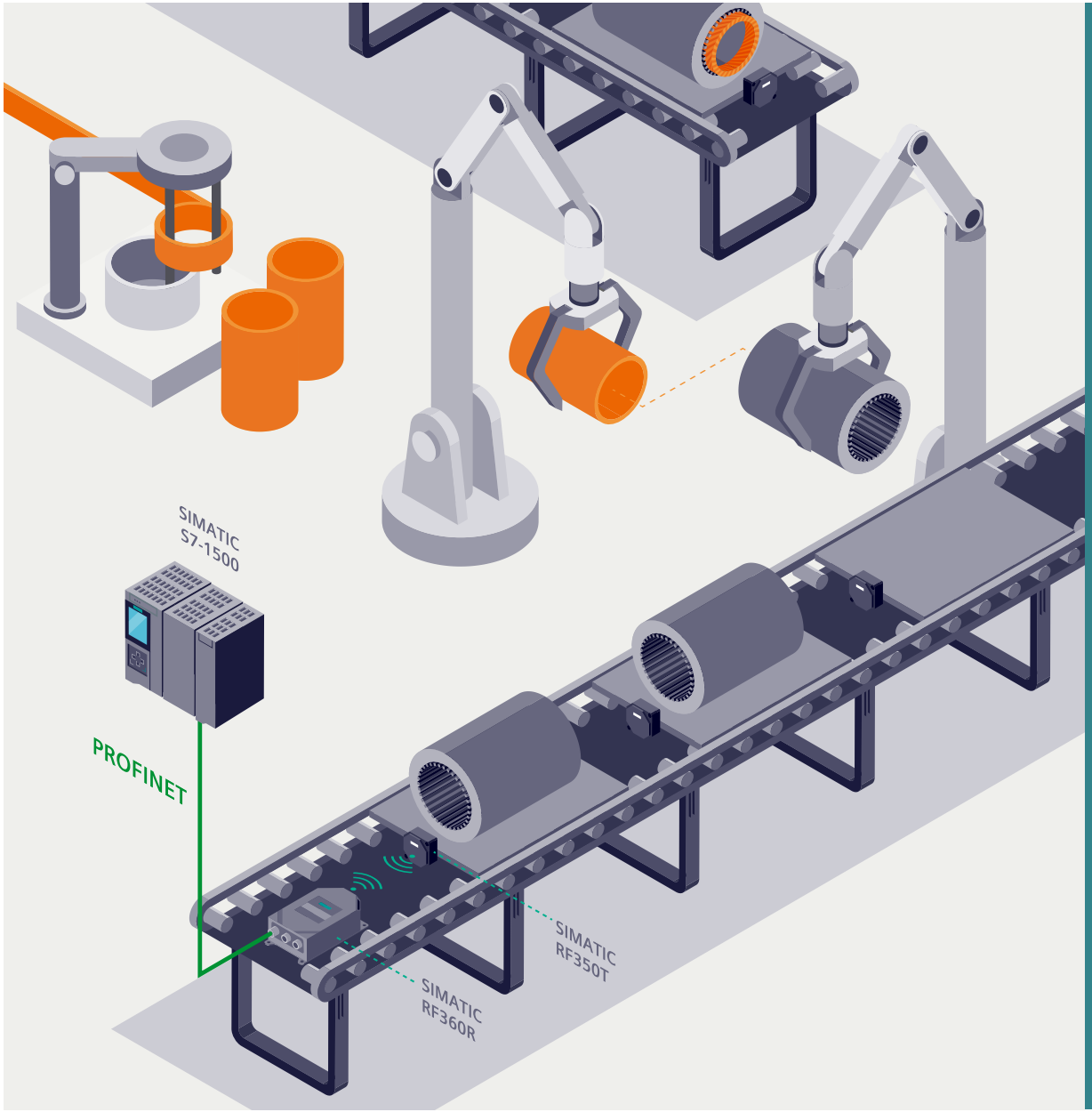
- Simple implementation of automatic positioning
- Cost-effective design thanks to the use of only two different components
- Integration of a reader even in the limited space on an AGV

Click the icons for more information

SIMATIC RF300 Readers

SIMATIC RF300 Transponders

Electric motor production in the automotive industry



Task

The global trend toward electromobility requires fast, efficient and flexible manufacturing of electric motors. In the process, the traceability of quality-related materials and components must be guaranteed.

Solution

In motor production, every workpiece carrier is fitted with a SIMATIC RF350T transponder on which all the production-related information is stored. With the aid of the SIMATIC RF360R reader, this data is read and written at the workstations.

Benefits

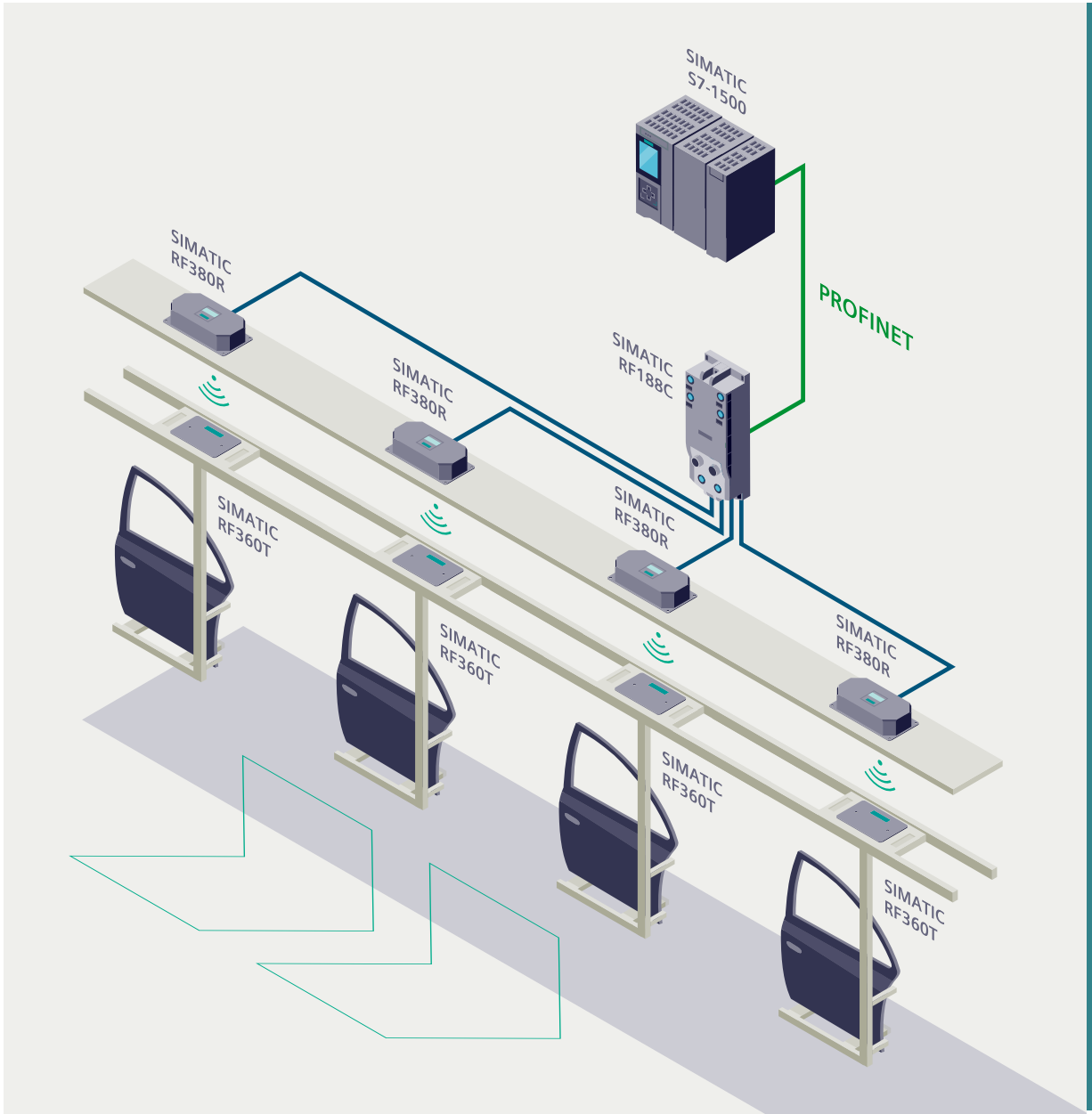
- More flexible production thanks to the high-performance SIMATIC RF300 RFID system
- Space-saving and cost-efficient combination of the features of a communication module and reader in one device, the SIMATIC RF360R

Click the icons for more information

SIMATIC RF300 Readers

SIMATIC RF300 Transponders

Process control in industrial production



Task

To enable the strategic control of manufacturing processes, production and quality data from workpieces on electric monorail systems has to be automatically identified and assigned.

Solution

Each carrier is fitted with a SIMATIC RF360T transponder storing the data necessary for production that is read and modified by a reader such as the SIMATIC RF380R. In this way, the SIMATIC RF300 RFID system enables fast and reliable identification.

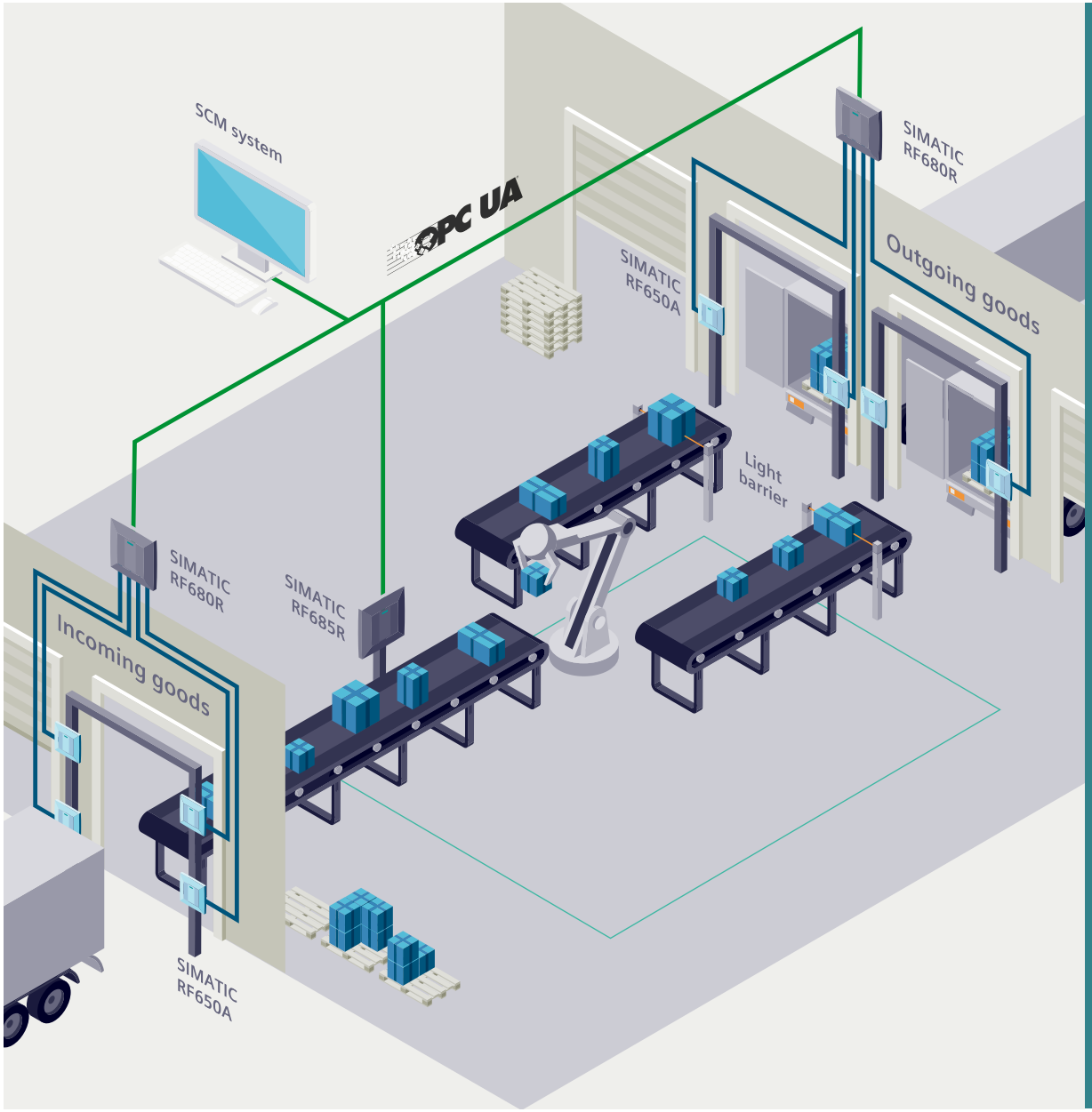
Benefits

- High conveyor speed thanks to extremely high data transfer rates
- Dynamic reading / writing without stopping the conveyor system
- Seamless integration in automation environments because SIMATIC RF300 is an integral part of Totally Integrated Automation (TIA Portal)

Click the icons for more information

SIMATIC RF300 Readers | SIMATIC RF300 Transponders | Integration

Monitoring of internal logistics processes



Task

The position and path of parts and product components must be monitored. This applies to incoming goods, outgoing goods, and distribution of goods.

Solution

A SIMATIC RF680R reader monitors incoming goods, reads sender data from the transponder, and communicates this data to the higher-level system. The packages are removed from the pallets, order-picked, and furnished with new transponders on which the receiver data is stored. After the packages have been checked, either the outgoing gate at outgoing goods opens - or an alarm is issued.

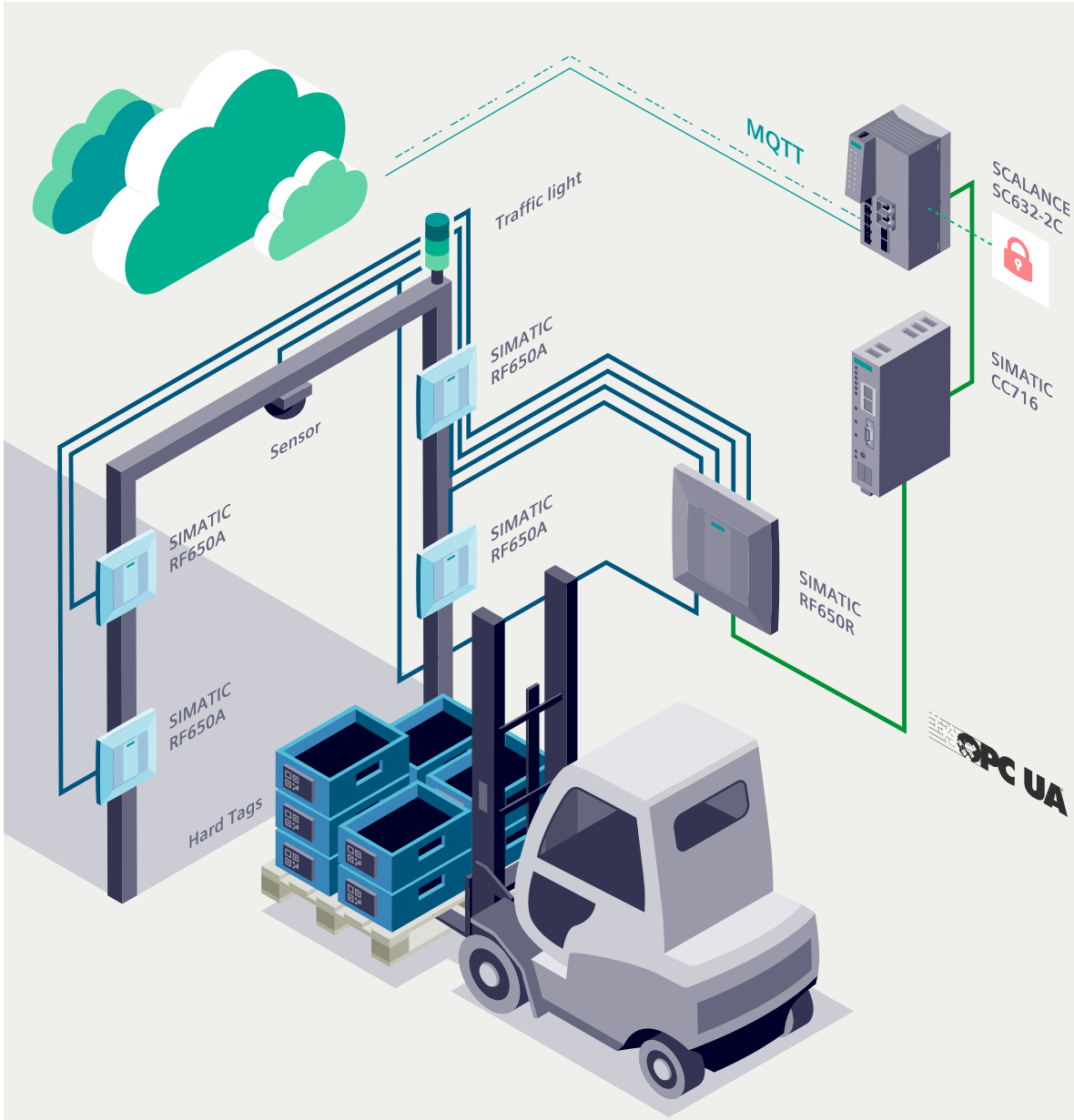
Benefits

- A high level of automation saves time, prevents errors, and thereby increases throughput
- The OPC UA interface integrated in the reader permits standardized communication with higher-level systems and reduces integration effort
- Combination of multiple read points in one reader saves money

Click the icons for more information

SIMATIC RF600 Readers | SIMATIC RF600 Antennas | SIMATIC RF600 SmartLabels

Cloud-based monitoring of logistics chains



Task

The current position and path of goods must be tracked via an automated, cross-location tracking and tracing system.

Solution

A SIMATIC RF650R reader and four SIMATIC RF650A antennas are mounted on a gate. The process of reading the transponders on the goods is started and stopped via the sensors. A (traffic light) signal displays red for errors and green if passage and loading are permitted. The system forwards the data acquired to the cloud platform.

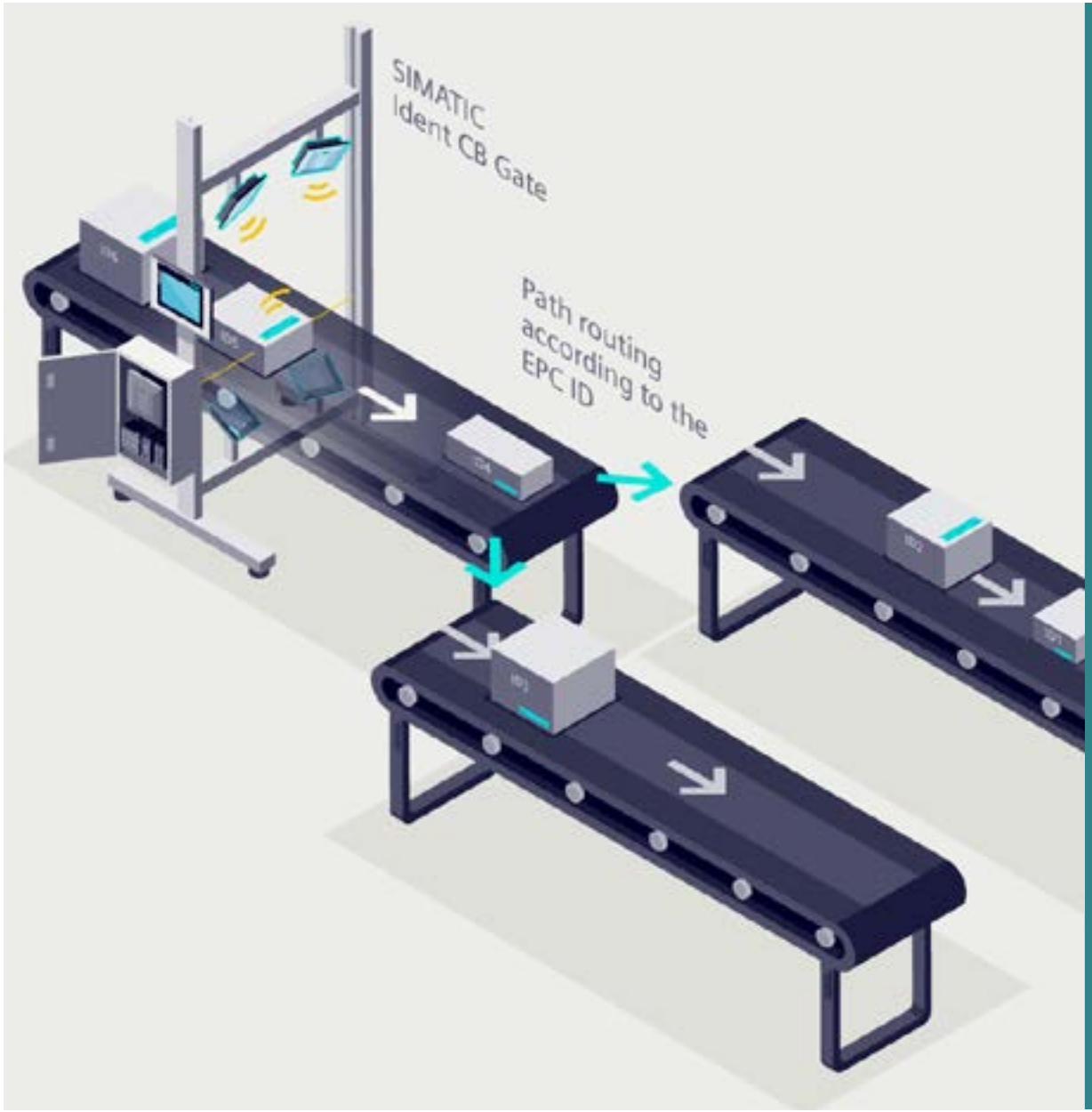
Benefits

- Transparency of material flow
- Prevention of errors thanks to a high level of automation
- Worldwide availability of data that is always up to date, including across company boundaries

Click the icons for more information

SIMATIC RF600 Readers | SIMATIC RF600 Antennas | SIMATIC RF600 Hard tags

Tracking & tracing objects on conveyors



Task

Transport of objects (e.g., transport containers, workpiece carriers) and identification on a conveyor belt. After the identification, it can be decided which further way the object should go in the process.

Solution

The SIMATIC IDENT CB Gate system has everything on board that is necessary to fulfill identification tasks. The four antennas ensure a reliable reading on both sides. The object reading is triggered by a photoelectric barrier. The connection to an upper-layer system from the PLC can be modified.

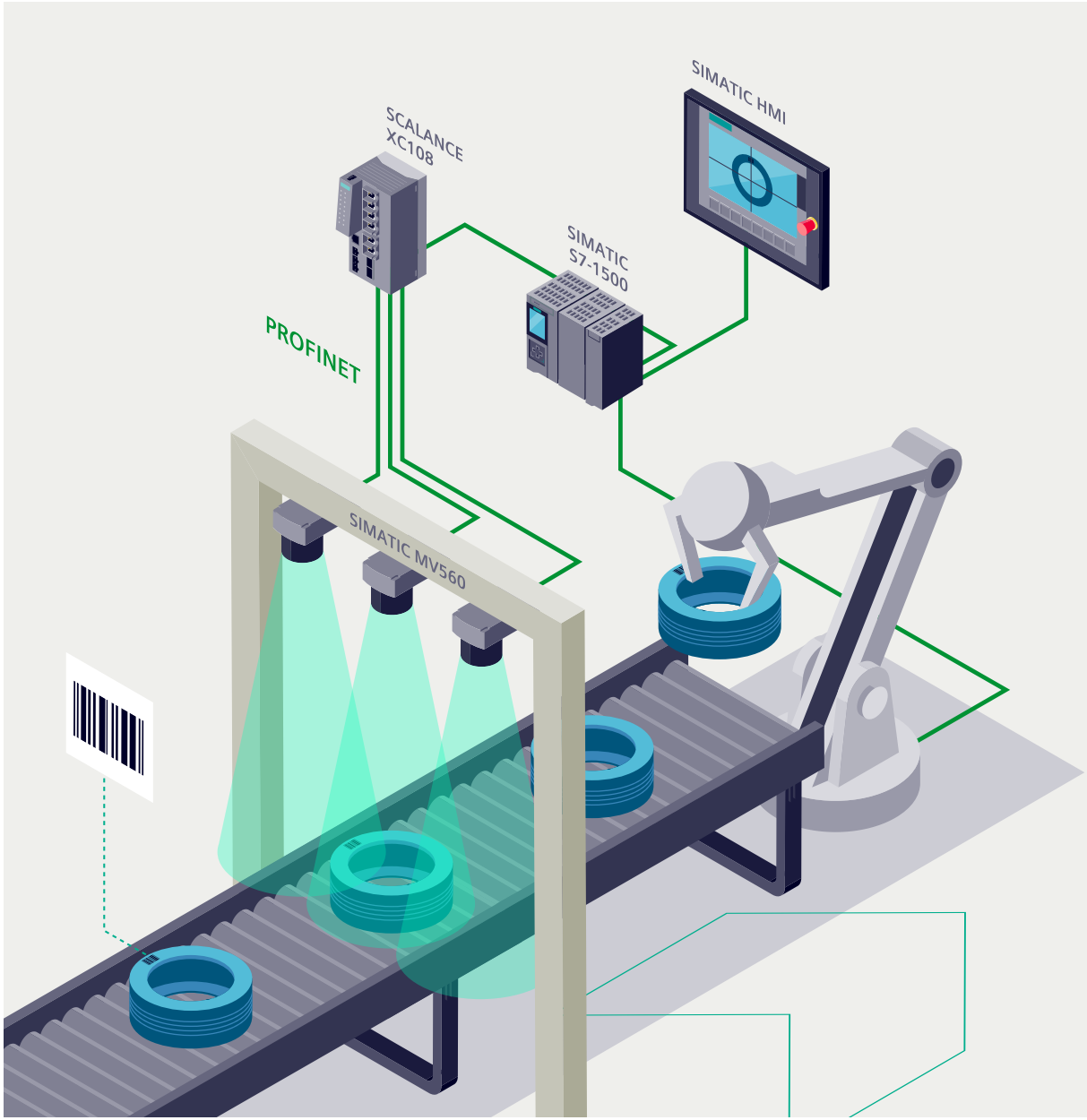
Benefits

- One full functional system, right out of the box
- Save time, prevent errors and increase throughput with an ingenious path-routing and sorting system
- Simple integration and communication with TCP/IP connection
- Local processing of trigger signals and reading events by digital IOs

Click the icons for more information

SIMATIC Ident Systems

Code reading at the conveyor belt



Task

When producing industrial goods, identifying a product ID by reading a barcode is essential. Large image fields (approx. 1 x 1 m) and high product frequencies (0.5 Hz) must be taken into account.

Solution

The SIMATIC MV500 optical reader provides users with powerful lighting technology and processing power so that they can reliably read barcodes, even in challenging situations and in different rotational positions.

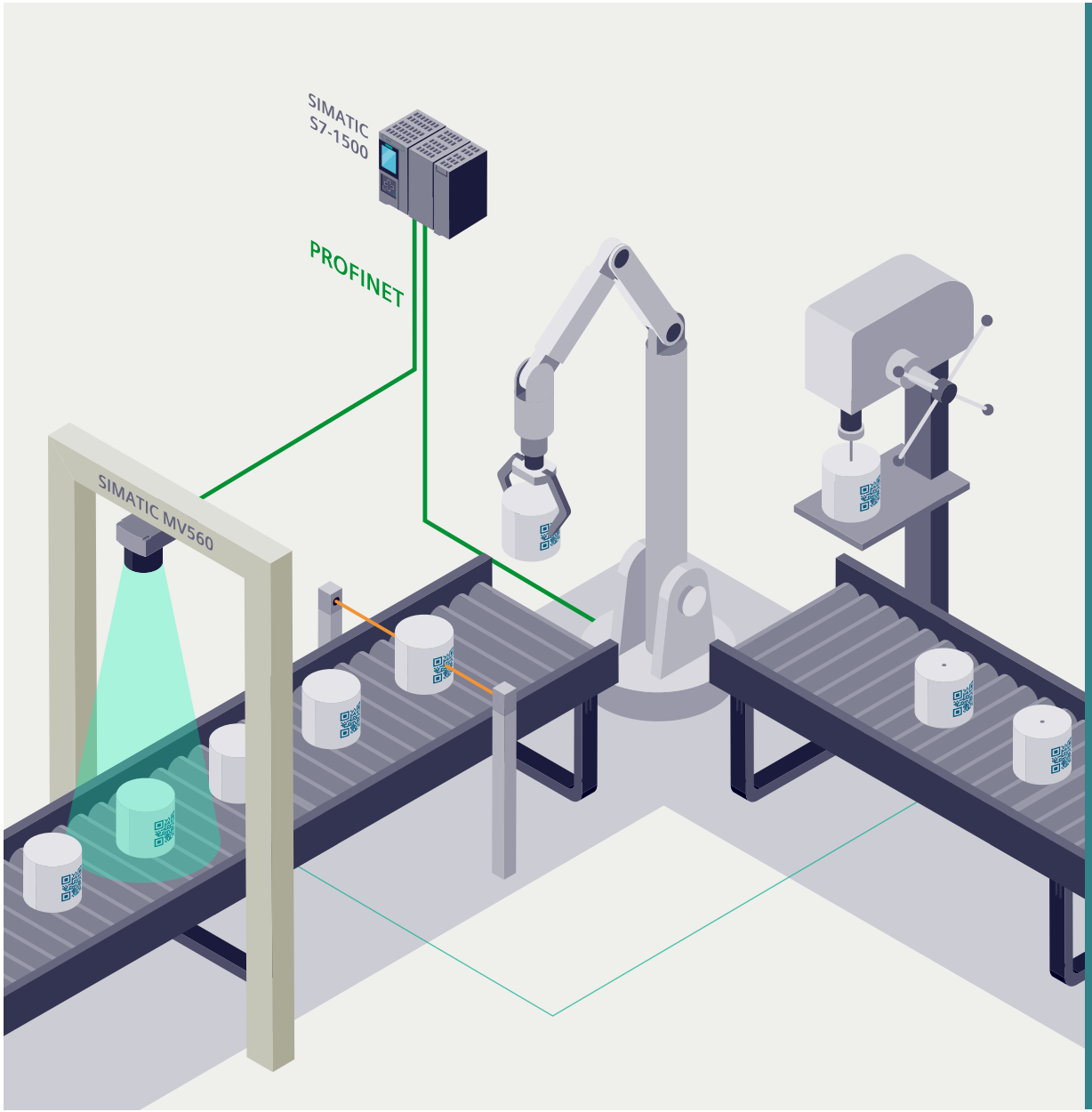
Benefits

- Maximum functional safety thanks to industry-compliant components
- Extremely easy maintenance and excellent remote support
- Security of investment thanks to standard components
- Global rollout (service / certificates)

Click the icons for more information

SIMATIC MV500
Optical readers

Position detection for interaction between components and robots



Task

To correctly pick and place product blanks in automation, robots have to detect their position. To do so, they must be able to read the workpiece ID.

Solution

SIMATIC MV500 detects the location and shape of the workpiece and communicates the position of correct workpieces, including the workpiece ID, to the robot so that the workpieces can be transported to their processing position. Defective parts are also detected and ejected before further processing.

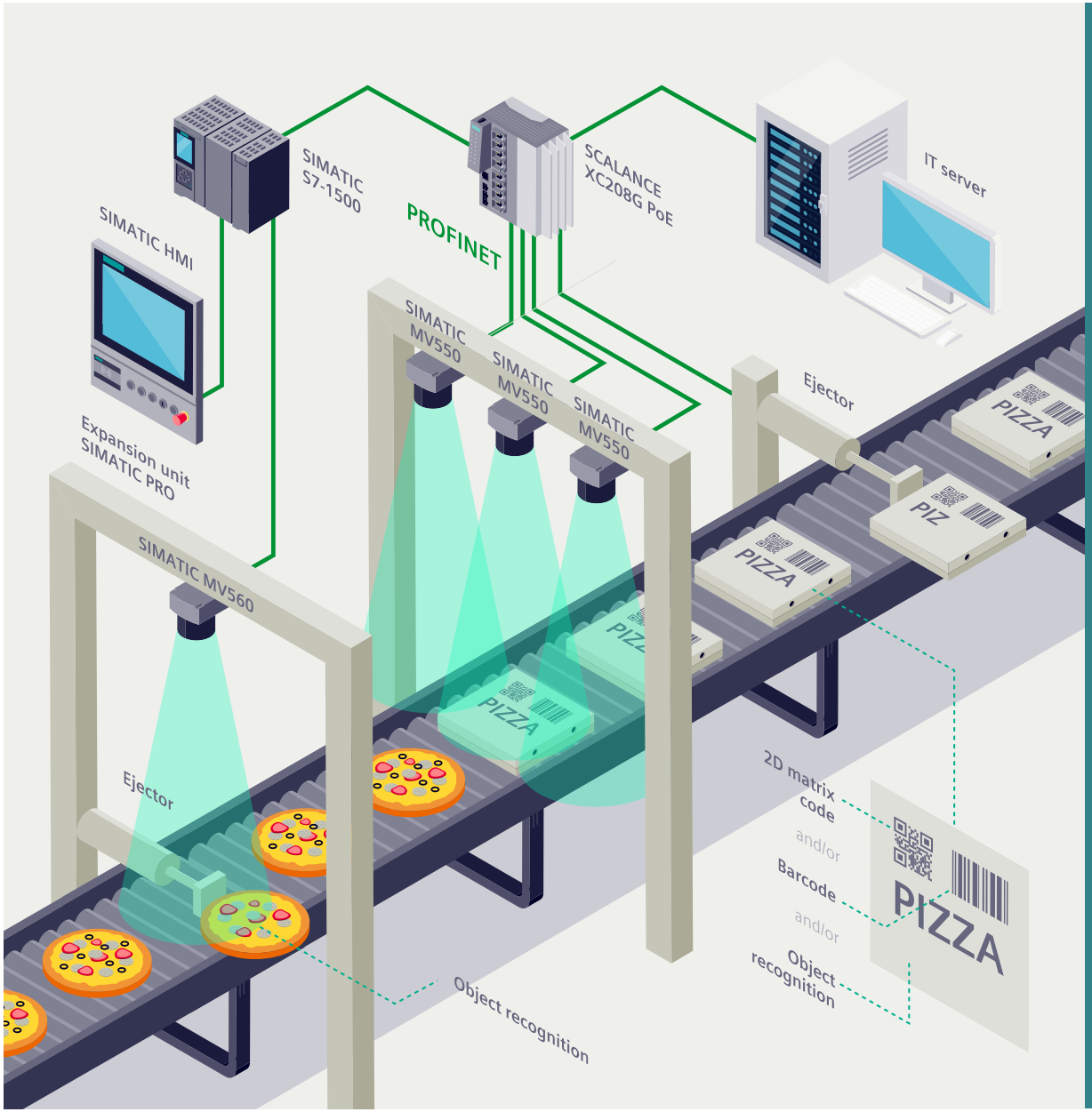
Benefits

- Camera has large image field to cover a large range
- High processing speed
- SINUMERIK connection available as a sample application
- Easy configuration thanks to web-based management

Click the icons for more information

SIMATIC MV500
Optical readers

Quality control using optical identification



Task

Reliable optical identification systems permit food, food packaging, and labels to be unambiguously checked.

Solution

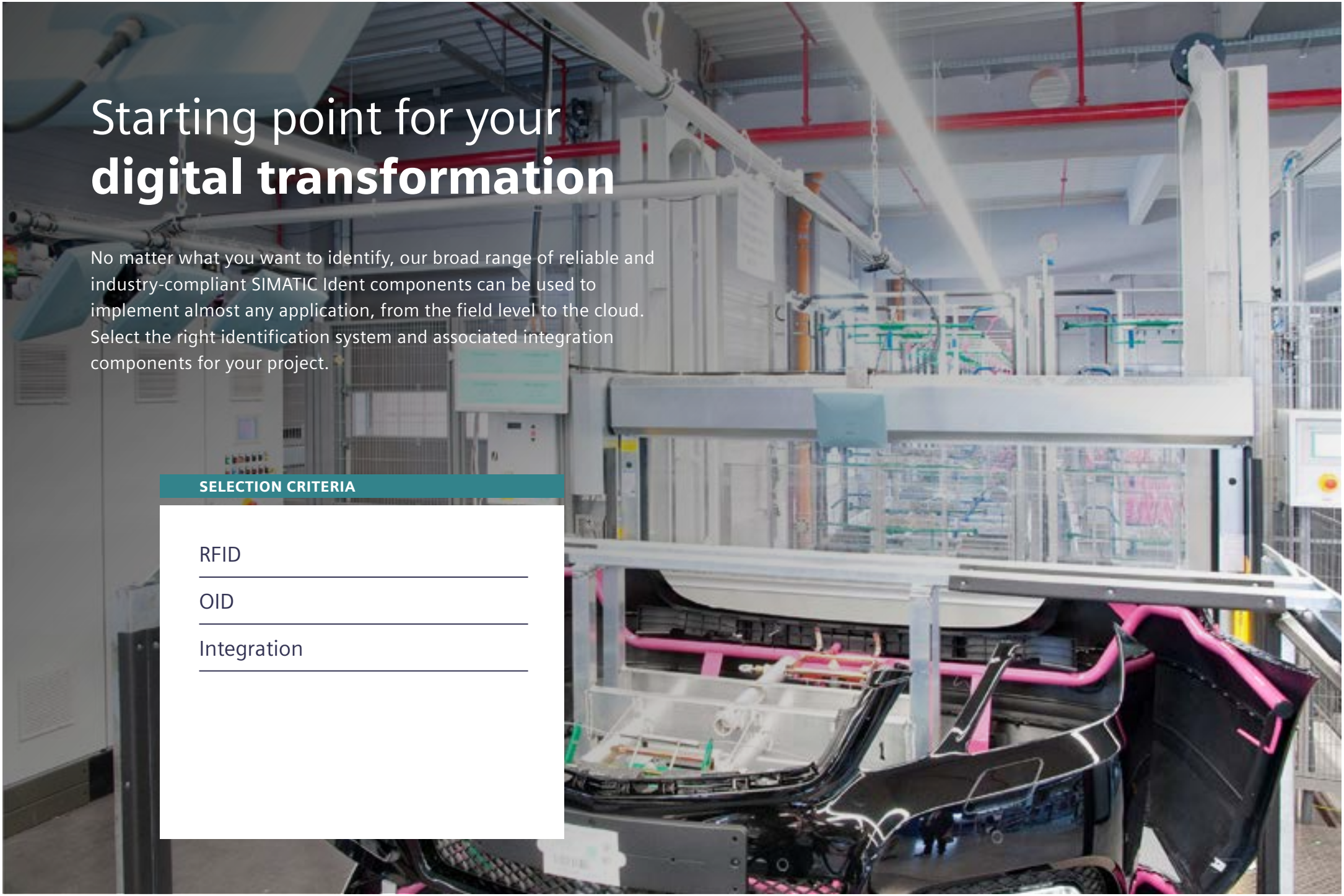
At the first inspection station, the food's production quality is checked. For this purpose, the SIMATIC MV560 optical reading system – which has a sufficiently large image field – is mounted on a gate. The second gate monitors the packaging for damage and labeling. Because this requires a higher resolution, multiple SIMATIC MV550 readers operate in parallel.

Benefits

- Reliable identification of production errors prevents costly product recalls and safeguards the brand's reputation
- Graphical documentation of all quality issues thanks to the separate Gigabit Ethernet interface
- Comprehensive solution from a single source

Click the icons for more information

SIMATIC MV500
Optical readers



Starting point for your **digital transformation**

No matter what you want to identify, our broad range of reliable and industry-compliant SIMATIC Ident components can be used to implement almost any application, from the field level to the cloud. Select the right identification system and associated integration components for your project.

SELECTION CRITERIA

RFID

OID

Integration

On the fast track to your **optimal RFID system**

All RFID systems are not alike. When selecting the solution that's right for you, many aspects have to be taken into account – such as read range, memory size, and transponder costs. Or maybe you need SmartLabels on rolls for your printer. This is why our RFID portfolio includes different product families and technologies, so you're sure to find the system that's right for you.

SELECTION CRITERIA

RFID

SIMATIC RF200 works quickly and flexibly and is especially cost-efficient

SIMATIC RF300 has a large user memory and transfers data in record time

SIMATIC RF600 reliably monitors thousands of objects

SIMATIC Ident Systems are fully functional, best-in-class reading systems with a single order

SIMATIC RF1000 permits access management using existing employee IDs

SIMATIC RF200 overview

Website

Works quickly and flexibly and is especially cost-efficient.

Industry Mall

SIMATIC RF200 is the economical solution for identification tasks of medium performance in the HF range, and is suitable for use in industrial production in small assembly lines or intralogistics. Thanks to their compact design, these RFID system readers can be optimally installed even in confined spaces. Readers with an IO-Link interface are available for especially simple and open identification solutions.

Your benefits at a glance:

- Seamless integration in the TIA automation environment: function blocks available, cost-efficient installation, faster commissioning, simple parameterization thanks to technology objects
- Communication and integration: connection to almost any system via standards (industrial buses, IO-Link, RS232)
- Comprehensive transponder portfolio: open standard, flexibly usable worldwide for any application

Get to know the members of the product family

Readers | Antennas | Transponders

SIMATIC RF200: readers

Website

Rely on a tireless workhorse for your RFID tasks.

Industry Mall

SIMATIC **RF210R**

M18 reader; extremely compact; ideal for use on small assembly lines; also available with standardized IO-Link interface.

Industry Mall

SIMATIC **RF220R**

Compact M30 reader – ideal for small assembly lines with a slightly higher range and field size; also available with standardized IO-Link interface.

Industry Mall

SIMATIC **RF240R**

Especially compact reader with a high degree of protection and a robust design; also available with standardized IO-Link or RS232 interface (ASCII protocol and scan mode).

Industry Mall

SIMATIC **RF250R**

Reader for operation with external antennas of various designs with many potential applications; also available with IO-Link or RS232 interface (ASCII protocol and scan mode).

Industry Mall

SIMATIC **RF260R**

Compact reader with a high degree of protection and a robust design for the harshest conditions; also available with standardized IO-Link or RS232 interface (ASCII protocol and scan mode).

Industry Mall

SIMATIC **RF280R**

Ideal reader for use in assembly lines with a longer range and dynamic applications; also available with RS232 interface (ASCII protocol and scan mode).

SIMATIC RF200: readers

Website

Rely on a tireless workhorse for your RFID tasks.

Industry Mall

SIMATIC **RF290R**

Very high-performance long-range reader (up to 60 cm) – ideal for use in production control and intralogistics; for operation with external antennas of various designs.

Industry Mall

SIMATIC **RF210M**

Mobile cabled handheld reader with integrated RF210R M18 reader – including for manual and reworking stations.

Industry Mall

SIMATIC **RF360M**

High-performance mobile handheld terminal for applications in production logistics, distribution, and service; available in two versions: with integrated antenna and for external antennas.

SIMATIC RF200: antennas

Website

Refuse to compromise when it comes to reliable data transmission.

Industry Mall

ANT 1 for SIMATIC RF250R

Universally usable flat antenna; also for dynamic applications; dimensions 75 x 75 x 20 mm (L x W x H).

Industry Mall

ANT 3 for SIMATIC RF250R

Flat, compact antenna, can be very precisely positioned even in cramped conditions; dimensions 50 x 28 x 10 mm (L x W x H).

Industry Mall

ANT 8 for SIMATIC RF250

Cylindrical antenna, permits highly precise positioning thanks to its extremely small design; primarily used for tool identification using the small MDS D117, D127, D421, and D521 transponders; dimensions M8 x 38 mm (Ø x L).

Industry Mall

ANT 12 for SIMATIC RF250

Cylindrical antenna; primarily used for tool identification; dimensions M12 x 40 mm (Ø x L).

Industry Mall

ANT 18 for SIMATIC RF250

Cylindrical antenna; primarily used for small assembly lines and tool identification; dimensions M18 x 40 mm (Ø x L).

Industry Mall

ANT 30 for SIMATIC RF250R

Cylindrical antenna; primarily used for assembly lines and tool identification; dimensions M30 x 40 mm (Ø x L).

SIMATIC RF200: antennas

Website

Refuse to compromise when it comes to reliable data transmission.

Industry Mall

ANT D5 for SIMATIC RF290R

Universally usable antenna for warehouses, logistics, and distribution; also for dynamic applications; dimensions 380 x 380 x 110 mm (W x H x D).

Industry Mall

ANT D6 for SIMATIC RF290R

Universally usable antenna for warehouses, logistics, and distribution; dimensions 480 x 580 x 110 mm (W x H x D).

Industry Mall

ANT 10 for SIMATIC RF290R

Universally usable antenna for warehouses, logistics, and distribution; dimensions 365 x 1150 x 115 mm (W x H x D).

SIMATIC RF200: transponders

Website

Proving themselves daily in countless applications worldwide.

Transponder categories
Our RF200 transponders are available for the following use cases:

Standard · Logistics · SmartCard · Heat resistant · On metal · In metal · Special applications

Industry Mall

MDS D100

85 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, printable on both sides, up to +80 °C, IP68, 650 mm range.

Industry Mall

MDS D117

4 x 5 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, adhesive, up to +125 °C, IP68, 4 mm range.

Industry Mall

MDS D124

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, heat-resistant up to +180 °C, IP68, 300 mm range.

Industry Mall

MDS D126

50 x 3.6 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, up to +100 °C, IP68, 500 mm range.

Industry Mall

MDS D127

6 x 6 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, in metal, up to +125 °C, IP68, 5 mm range.

SIMATIC RF200: transponders

Website

Proving themselves daily in countless applications worldwide.

Industry Mall

MDS D139

85 x 15 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, user memory 112-bytes / 896-bits, screw-on, non-printable, -40 to +220 °C cyclic, IP68, 600 mm range, ATEX II.

Industry Mall

MDS D160

16 x 3 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, heat-resistant up to +175 °C, IP68, 180 mm range.

Industry Mall

MDS D200

86 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, TI TAGIT HFI, 256-byte user memory, printable on both sides, adhesive, up to +60 °C, IP67, 600 mm range.

Industry Mall

MDS D226S

30 x 3.2 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP SLI-X2, 316-byte user memory, non-printable, up to +90 °C, IP68/IPX9K, 280 mm range.

Industry Mall

MDS D324

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, INFINEON SRF 55V10P, 992-byte user memory, non-printable, M3 screw, adhesive, heat-resistant up to +140 °C, IP67, 280 mm range.

Industry Mall

MDS D339

85 x 15 mm (Ø x H), ISO 15693, frequency 13.56 MHz, INFINEON SRF 55V10P, 992-byte user memory, non-printable, M5 screw, heat-resistant up to +220 °C, IP68, 480 mm range.

SIMATIC RF200: transponders

Website

Proving themselves daily in countless applications worldwide.

Industry Mall

MDS D400

85 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, adhesive, printable on both sides, up to +60 °C, IP67, 650 mm range.

Industry Mall

MDS D421

10 x 4.5 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, adhesive, non-printable, up to +100 °C, IP67, 8 mm range.

Industry Mall

MDS D422

20 x 6 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, thread M20x1, adhesive, non-printable, up to +100 °C, IP68, 19 mm range.

Industry Mall

MDS D423

30 x 8 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, M4 countersunk screw on metal, non-printable, up to +100 °C, IP68, 80 mm range.

Industry Mall

MDS D424

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, M3 screw, adhesive, non-printable, up to +100 °C, IP67, 300 mm range.

Industry Mall

MDS D425

24 x 10 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, screws (M6), non-printable, up to +125 °C, IP68, 45 mm range.

SIMATIC RF200: transponders

Website

Proving themselves daily in countless applications worldwide.

Industry Mall

MDS D426S

30 x 3 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, screws (M4), non-printable, up to +90 °C, IP68/IPX9K, 280 mm range.

Industry Mall

MDS D426

50 x 3.2 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, screws (M4), non-printable, up to +100 °C, IP68, 400 mm range.

Industry Mall

MDS D428

24 x 20 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, screw-fit transponders M8 long, non-printable, up to +125 °C, IP68, 150 mm range.

Industry Mall

MDS D460

16 x 3 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, patch, adhesive, non-printable, up to +100 °C, IP67, 160 mm range.

Industry Mall

MDS D521

10 x 4.5 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, adhesive, non-printable, up to +100 °C, IP67, 5 mm range.

Industry Mall

MDS D522

20 x 6 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, thread M20 x 1, adhesive, non-printable, up to +100 °C, IP68, 35 mm range.

SIMATIC RF200: transponders

Website

Proving themselves daily in countless applications worldwide.

Industry Mall

MDS D524

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, M3 screw, adhesive, non-printable, up to +100 °C, IP67, 300 mm range.

Industry Mall

MDS D525

24 x 10 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, screw-fit transponders M6 short, non-printable, up to +125 °C, IP68, 50 mm range.

Industry Mall

MDS D526

50 x 3.2 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, M4 screw, non-printable, up to +100 °C, IP68, 400 mm range.

Industry Mall

MDS D528

24 x 20 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, screw-fit transponders M8 long, non-printable, up to +125 °C, IP68, 80 mm range.

Industry Mall

MDS D560

16 x 3 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, patch, adhesive, non-printable, up to +90 °C, IP68, 160 mm range.

Industry Mall

MDS D165

86 x 54 x 0.3 mm (L x W x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, printable, adhesive, up to +85 °C, IP65, 500 mm range.

SIMATIC RF200: transponders

Website

Proving themselves daily in countless applications worldwide.

Industry Mall

MDS D261

55 x 55 x 0.3 mm (L x W x H), ISO 15693, frequency 13.56 MHz, STM LRI2K, 316-byte user memory, printable, adhesive, up to +85 °C, IP65, 450 mm range.

SIMATIC RF300 overview

Website

Has a large user memory and transfers data in record time.

Industry Mall

Order your Starter Kit now!

Your benefits at a glance:

- High-end system: extremely fast data transmission, very high immunity to noise, and a large memory
- Seamless integration in the TIA automation environment: function blocks available, cost-efficient installation, faster commissioning, simple parameterization thanks to technology objects
- Versions with Ex approval for applications in Ex zones

SIMATIC RF300 offers fast data transmission and a large data memory in a compact design, and is ideal for handling challenging applications in automation. The HF RFID system ensures seamless data transparency all the way to the cloud – a basic requirement for the perfect control and systematic optimization of your material flow.

Get to know the members of the product family

Readers | Antennas | Transponders

SIMATIC RF300: readers

Website

Rely on extremely fast data transmission.

Industry Mall

SIMATIC **RF310R**

Extremely compact reader; high degree of protection; ideal for small assembly lines; available with RS422 interface for the RFID communication modules and scan mode.

Industry Mall

SIMATIC **RF340R**

Compact reader; high degree of protection; medium performance range; ideal for assembly lines and dynamic applications; with RS422 interface for the RFID communication modules.

Industry Mall

SIMATIC **RF350R**

Universal reader; high degree of protection; for operation with external antennas; flexibly usable in industrial production; with RS422 interface for the RFID communication modules.

Industry Mall

SIMATIC **RF360R**

High-performance compact reader with integrated interface connection; high degree of protection; simple parameterization thanks to integrated web server (WBM).

Industry Mall

SIMATIC **RF380R**

Reader for the upper performance range; high degree of protection; for assembly lines with longer ranges and highly dynamic applications; with RS422 and RS232 interfaces.

Industry Mall

SIMATIC **RF382R**

Scan mode reader for the upper performance range with integrated special antenna; high degree of protection; for conveyor systems and dynamic applications; with RS422 and RS232 interfaces.

SIMATIC RF300: readers

Website

Rely on extremely fast data transmission.

Industry Mall

SIMATIC **RF360M**

High-performance mobile handheld terminal for applications in production logistics, distribution, and service; available in two versions: with integrated antenna and for external antennas.

SIMATIC RF300: antennas

Website

Discover fast data transmission in a wide range of application areas.

Industry Mall

ANT 1 for SIMATIC RF350R

Universally usable flat antenna; also for dynamic applications; dimensions 75 x 75 x 20 mm (L x W x H).

Industry Mall

ANT 3 for SIMATIC RF350R and RF360M

Flat, compact antenna; can be very precisely positioned even in cramped conditions; dimensions 50 x 28 x 10 mm (L x W x H).

Industry Mall

ANT 8 for SIMATIC RF350R and RF360M

Cylindrical antenna; permits highly precise positioning thanks to its extremely small design; primarily used for tool identification using the small MDS D117, D127, D421, and D521 transponders; dimensions M8 x 38 mm (Ø x L).

Industry Mall

ANT 12 for SIMATIC RF350R and RF360M

Cylindrical antenna; permits highly precise positioning thanks to its extremely small design; primarily used for tool identification; dimensions M12 x 40 mm (Ø x L).

Industry Mall

ANT 18 for SIMATIC RF350R and RF360M

Cylindrical antenna; primarily used for small assembly lines and tool identification; dimensions M18 x 40 mm (Ø x L).

Industry Mall

ANT 30 for SIMATIC RF350R and RF360M

Cylindrical antenna; primarily used for assembly lines and tool identification; dimensions M30 x 40 mm (Ø x L).

SIMATIC RF300: transponders

Website

Large data storage that maintains a minimal size profile.

Transponder categories
Our RF300 transponders are available for the following use cases:

Standard | Logistics | SmartCard | Heat resistant | On metal | In metal | Special applications

Industry Mall

MDS D100

85 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, printable on both sides, up to +80 °C, IP68, 650 mm range.

Industry Mall

MDS D117

4 x 5 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, adhesive, up to +125 °C, IP68, 4 mm range.

Industry Mall

MDS D124

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, heat-resistant up to +180 °C, IP68, 300 mm range.

Industry Mall

MDS D126

50 x 3.6 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, up to +100 °C, IP68, 500 mm range.

Industry Mall

MDS D127

6 x 6 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, in metal, up to +125 °C, IP68, 5 mm range.

SIMATIC RF300: transponders

Website

Large data storage that maintains a minimal size profile.

Industry Mall

MDS D139

85 x 15 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, user memory 112-bytes / 896-bits, screw-on, non-printable, -40 to +220 °C cyclic, IP68, 600 mm range, ATEX II.

Industry Mall

MDS D160

16 x 3 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, heat-resistant up to +175 °C, IP68, 180 mm range.

Industry Mall

MDS D200

86 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, TI TAGIT HFI, 256-byte user memory, printable on both sides, adhesive, up to +60 °C, IP67, 600 mm range.

Industry Mall

MDS D226S

30 x 3.2 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP SLI-X2, 316-byte user memory, non-printable, up to +90 °C, IP68/IPX9K, 280 mm range.

Industry Mall

MDS D324

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, INFINEON SRF 55V10P, 992-byte user memory, non-printable, M3 screw, adhesive, heat-resistant up to +140 °C, IP67, 280 mm range.

Industry Mall

MDS D339

85 x 15 mm (Ø x H), ISO 15693, frequency 13.56 MHz, INFINEON SRF 55V10P, 992-byte user memory, non-printable, M5 screw, heat-resistant up to +220 °C, IP68, 480 mm range.

SIMATIC RF300: transponders

Website

Large data storage that maintains a minimal size profile.

Industry Mall

MDS D400

85 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, adhesive, printable on both sides, up to +60 °C, IP67, 650 mm range.

Industry Mall

MDS D421

10 x 4.5 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, adhesive, non-printable, up to +100 °C, IP67, 8 mm range.

Industry Mall

MDS D422

20 x 6 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, thread M20x1, adhesive, non-printable, up to +100 °C, IP68, 19 mm range.

Industry Mall

MDS D423

30 x 8 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, M4 countersunk screw on metal, non-printable, up to +100 °C, IP68, 80 mm range.

Industry Mall

MDS D424

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, M3 screw, adhesive, non-printable, up to +100 °C, IP67, 300 mm range.

Industry Mall

MDS D425

24 x 10 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, screws (M6), non-printable, up to +125 °C, IP68, 45 mm range.

SIMATIC RF300: transponders

Website

Large data storage that maintains a minimal size profile.

Industry Mall

MDS D426S

30 x 3 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, screws (M4), non-printable, up to +90 °C, IP68/IPX9K, 280 mm range.

Industry Mall

MDS D426

50 x 3.2 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, screws (M4), non-printable, up to +100 °C, IP68, 400 mm range.

Industry Mall

MDS D428

24 x 20 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, screw-fit transponders M8 long, non-printable, up to +125 °C, IP68, 150 mm range.

Industry Mall

MDS D460

16 x 3 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, patch, adhesive, non-printable, up to +100 °C, IP67, 160 mm range.

Industry Mall

MDS D521

10 x 4.5 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, adhesive, non-printable, up to +100 °C, IP67, 5 mm range.

Industry Mall

MDS D522

20 x 6 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, thread M20x1, adhesive, non-printable, up to +100 °C, IP68, 35 mm range .

SIMATIC RF300: transponders

Website

Large data storage that maintains a minimal size profile.

Industry Mall

MDS D524

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, M3 screw, adhesive, non-printable, up to +100 °C, IP67, 300 mm range.

Industry Mall

MDS D525

24 x 10 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, screw-fit transponders M6 short, non-printable, up to +125 °C, IP68, 50 mm range.

Industry Mall

MDS D526

50 x 3.2 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, M4 screw, non-printable, up to +100 °C, IP68, 400 mm range.

Industry Mall

MDS D528

24 x 20 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, screw-fit transponders M8 long, non-printable, up to +125 °C, IP68, 80 mm range.

Industry Mall

MDS D560

16 x 3 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, patch, adhesive, non-printable, up to +90 °C, IP68, 160 mm range.

Industry Mall

SIMATIC **RF320T**

Universally usable; compact, 20-byte EEPROM + 4-byte serial number; in button format; dimensions 27 x 4 mm (Ø x H).

SIMATIC RF300: transponders

Website

Large data storage that maintains a minimal size profile.

Industry Mall

SIMATIC **RF330T**

Universally usable; compact; high degree of protection IP68 / IPx9K; can be used on metal and flush-mounted in metal; suitable for identifying metal workpiece carriers, tools, or containers.

Industry Mall

SIMATIC **RF340T**

Universally usable; especially suitable for small workpiece carriers; can be mounted directly on metal; dimensions 25 x 15 x 48 mm (W x H x D).

Industry Mall

SIMATIC **RF350T**

Universally usable; can be mounted directly on metal; dimensions 50 x 20 x 50 mm (W x H x D).

Industry Mall

SIMATIC **RF360T**

Universally usable; in credit card format; can be mounted on metal with a spacer; dimensions 55 x 2.5 x 86 mm (W x H x D).

Industry Mall

SIMATIC **RF370T**

Universally usable; in cuboid format; can be mounted directly on metal; dimensions 75 x 41 x 75 mm (W x H x D).

Industry Mall

SIMATIC **RF380T**

Heat-resistant; designed for skid identification in paintshops; maximum temperature range up to +220 °C (cyclic).

SIMATIC RF300: transponders

Website

Large data storage that maintains a minimal size profile.

Industry Mall

MDS E600

Data memory (752-byte EEPROM) in credit card format; universally usable; degree of protection IP68, up to +60 °C; max. read / write range 70 mm.

Industry Mall

MDS E611

Data memory (752-byte EEPROM) in credit card format; universally usable; degree of protection IP68; up to +85 °C; max. read / write range 100 mm.

Industry Mall

MDS E623

10 x 4.5 mm (Ø x H); small data memory; 752-byte EEPROM; designed especially for tool coding according to DIN 69873; can be flush-mounted in metal.

Industry Mall

MDS E624

27 x 4 mm (Ø x H); universally usable compact data memory; 752-byte EEPROM; degree of protection IP67 / IP X9K 1; temperature range up to +125 °C; max. read / write range 40 mm.

Industry Mall

MDS D165

86 x 54 x 0.3 mm (L x W x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, printable, adhesive, up to +85 °C, IP65, 500 mm range.

Industry Mall

MDS D261

55 x 55 x 0.3 mm (L x W x H), ISO 15693, frequency 13.56 MHz, STM LRI2K, 316-byte user memory, printable, adhesive, up to +85 °C, IP65, 450 mm range.

SIMATIC RF600 overview

Website

Keeps an eye on a thousand objects.

Industry Mall

Order your Starter Kit now!

Your benefits at a glance:

- High reliability with long read ranges and robust handling of overreach
- Maximum flexibility in terms of connectivity: connection options for all fields of application (industry, cloud, logistics)
- Reduced project expenditure thanks to quick and easy access to proven configuration, commissioning, and diagnostic tools via a web browser

SIMATIC RF600 is the enabler for seamless production and supply chain solutions that can monitor, track, and identify thousands of objects. In logistics applications with large numbers of containers, pallets, or even finished products, the system's full potential can be realized – for example, in tasks involving long read ranges and bulk reading. The high-performance UHF RFID system transfers this data to the cloud where it is evaluated for the purpose of optimizing production processes and supply chains based on the knowledge gained.

Get to know the members of the product family

SIMATIC RF600: readers

Website

Take a giant step closer to digitalization with a high-performance, standard-setting UHF RFID system.

Industry Mall

SIMATIC **RF610R**

Compact; integrated, circular, polarized antenna; high degree of protection IP67; read range up to 1.8 m; wide range of communication options; dimensions 133 x 133 x 45 mm (W x H x D).

Industry Mall

SIMATIC **RF615R**

Compact; integrated, circular, polarized antenna; external antenna connection; high degree of protection IP67; read range up to 4 m; wide range of communication options; dimensions 133 x 133 x 45 mm (W x H x D).

Industry Mall

SIMATIC **RF680R**

With four flexibly configurable antenna connections; high degree of protection IP65; read range up to 8 m; wide range of communication options; dimensions 258 x 258 x 80 mm (W x H x D).

Industry Mall

SIMATIC **RF685R**

Integrated adaptive antenna and external antenna connection; high degree of protection IP65; wide range of communication options; dimensions 258 x 258 x 80 mm (W x H x D).

Industry Mall

SIMATIC **RF690R**

Ultra-high reading rate for logistics applications with large tag populations; four configurable antenna connections; PoE; wide range of communication options; dimensions 245 x 209 x 41 mm (W x H x D).

Industry Mall

SIMATIC **RF695R**

Ultra-high reading rate for logistics applications with large tag populations; eight configurable antenna connections; PoE; wide range of communication options; dimensions 245 x 209 x 41 mm (W x H x D).

SIMATIC RF600: readers

Website

Take a giant step closer to digitalization with a high-performance, standard-setting UHF RFID system.

Industry Mall

Mobile handheld terminal SIMATIC **RF660M**

Compact; for applications in the areas of production logistics, warehouse management, inventory, and service; important tool for commissioning and testing RFID systems.

SIMATIC RF600: antennas

Website

Robust and with a high degree of protection, they are also suitable for harsh industrial use.

Industry Mall

SIMATIC **RF615A**

Extremely compact; ideal for use in production, e.g. for assembly lines or track-guided conveyor systems; dimensions 52 x 52 x 16 mm (W x H x D).

Industry Mall

SIMATIC **RF622A**

Extremely compact; ideal for use in production, e.g. for assembly lines or track-guided conveyor systems; dimensions 76 x 76 x 20 mm (W x H x D).

Industry Mall

SIMATIC **RF642A**

Robust and compact; for industrial applications in production and logistics; with its linear polarization, especially suitable for severely metallic environments; dimensions 185 x 185 x 45 mm (W x H x D).

Industry Mall

SIMATIC **RF650A**

Robust and compact; for industrial applications; with its circular polarization, especially suitable for reading transponders in varying orientations; dimensions 198 x 198 x 60 mm (W x H x D).

Industry Mall

SIMATIC **RF662A**

Suitable for a wide range of production and logistics applications requiring extended reading range; universal UHF antenna; robust design; high degree of protection; dimensions 312 x 312 x 68 mm (W x H x D).

Industry Mall

SIMATIC **RF680A**

Adaptive antenna with switchable polarization (can be set to horizontal, vertical, or circular); makes project planning more reliable even in challenging radio environments; dimensions 198 x 198 x 60 mm (W x H x D).

SIMATIC RF600: hard tags

Website

Passive and maintenance-free, they guarantee smooth operation.

Transponder categories
Our RF600 hard tags are available for the following use cases:

Standard | Logistics | SmartCard | Heat resistant
On metal | In metal | Special applications

Industry Mall

SIMATIC **RF610T**

Flexible card in ISO format; versatile; can be flexibly mounted on a wide range of materials; plastic enclosure designed for food safety; wideband.

Industry Mall

SIMATIC **RF620T**

Container transponder; resistant to environmental influences and cleaning agents; can be mounted on plastic, wood, and glass – and on metal with a spacer; food-safe plastic enclosure; wideband.

Industry Mall

SIMATIC **RF621T**

Container transponder; high range; resistant to environmental influences and cleaning agents; can be mounted on metal with a spacer; wideband.

Industry Mall

SIMATIC **RF625T**

Disk transponder; can be countersunk in metal and flush-mounted on surfaces; robust; high degree of protection (IP68); two frequency versions: 865 to 868 MHz (ETSI) and 902 to 928 MHz (FCC, CMIIT).

Industry Mall

SIMATIC **RF630T**

Screw transponder with M6 grub screw; robust; resistant to cleaning agents; two frequency versions: 865 to 868 MHz (ETSI) and 902 to 928 MHz (FCC, CMIIT).

SIMATIC RF600: hard tags

Website

Passive and maintenance-free, they guarantee smooth operation.

Industry Mall

SIMATIC **RF640T**

Robust, compact tool transponder in IP68 / IPx9K; two frequency versions, for 865 to 868 MHz (ETSI) and 902 to 928 MHz (FCC, CMIIT); can be used directly on metal; European version with ATEX approval.

Industry Mall

SIMATIC **RF645T**

Passive, maintenance-free on-metal data storage medium; robust and compact; high degree of protection (IP68); large memory (448-bit EPC / 2048-bit user); resistant to mineral oils, lubricants, and cleaning agents; wideband.

Industry Mall

SIMATIC **RF650T**

High range; high degree of protection (IP68); self-adhesive; storage capacity 128-bit EPC, no user memory.

Industry Mall

SIMATIC **RF670T OEM**

Heat-resistant; high range; can be mounted on-metal; high degree of protection (IP67); withstands temperatures up to 250 °C; storage capacity up to 62 Byte/ 496-bit EPC plus up to 752-bit user memory; used in paintshops.

Industry Mall

SIMATIC **RF670T LOGISTIC**

High range; can be mounted on-metal; high degree of protection (IP68/IPx9K); heat resistant up to 140 °C; storage capacity up to 62 Byte/ 496-bit EPC plus up to 752-bit user memory.

Industry Mall

SIMATIC **RF671T**

High range; can be mounted on-metal; high degree of protection (IP67); storage capacity 12 Byte/ 96-bit EPC plus 32-bit user memory.

SIMATIC RF600: hard tags

Website

Passive and maintenance-free, they guarantee smooth operation.

Industry Mall

SIMATIC **RF680T**

Heat-resistant; high range; high degree of protection (IP68 / IPx9K); silicon-free; withstands temperatures up to 220 °C; storage capacity 96/ 240-bit EPC plus 512-bit user memory; wideband.

Industry Mall

SIMATIC **RF682T**

Heat-resistant; high range; high degree of protection (IP68 / IPx9K), silicon-free; withstands temperatures up to 220 °C; storage capacity 256-bit EPC plus 3072-bit user memory; wideband.

Industry Mall

SIMATIC **RF683T**

Heat-resistant; high range; high degree of protection (IP68 / IPx9K); withstands temperatures up to 220 °C; storage capacity 32-byte/ 256-bit EPC plus 384-byte/ 3kbit user memory.

SIMATIC RF600: SmartLabels

Website

Passive and maintenance-free, they guarantee smooth operation.

Transponder categories
Our RF600 SmartLabels are available for the following use cases:

Standard
Logistics
Heat resistant
On metal
Special applications

Industry Mall

SIMATIC **RF630L** 6GT2810-2AB02-0AX2

PET transparent, 97 x 27 mm, 860 to 930 MHz, EPC 56-byte/ 448-bit, user memory 256-byte/ 2048-bit, adhesive on one side, not printable, -40 to +80 °C, 76.2 mm (3“) core diameter, 5 m range.

Industry Mall

SIMATIC **RF630L** 6GT2810-2AB03

PET, 54 x 34 mm, 860 to 930 MHz, EPC 30-byte / 240-bit, user memory 64-byte/ 512-bit,adhesive on one side, printable, -40 to +80 °C, 76.2 mm (3“) core diameter, 5 m range.

Industry Mall

SIMATIC **RF630L** 6GT2810-2AC84

PET, 73 x 12.5 mm, 860 to 930 MHz, EPC 56-byte/ 448-bit, user memory 256-byte / 2048-bit, adhesive on one side, printable, -20 °C to +70 °C, 76.2 mm (3“) core diameter, 5 m range.

Industry Mall

SIMATIC **RF630L** 6GT2810-2AE81-0AX3

PET, 75 x 20 mm, 860 to 930 MHz, EPC 56-byte/ 448-bit, user memory 256-byte / 2048-bit, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 120 °C), 76.2 mm (3“) core diameter, 4 m range.

Industry Mall

SIMATIC **RF630L** 6GT2810-2AE82-1AX0

PET white, 80 x 26 mm, 860 to 930 MHz, EPC 16-byte/ 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C short term 160 °C), 76.2 mm (3“) core diameter, 5 m range.

SIMATIC RF600: SmartLabels

Website

Passive and maintenance-free, they guarantee smooth operation.

Industry Mall

SIMATIC **RF630L**
6GT2810-2AE82-0AX0

PET white, 90 x 30 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 160 °C), 76.2 mm (3“) core diameter, 5 m range.

Industry Mall

SIMATIC **RF630L**
6GT2810-2AE82-0AX1

PET white, 90 x 30 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 160 °C), 152.4 mm (6“) core diameter, 5 m range.

Industry Mall

SIMATIC **RF630L**
6GT2810-2AE82-0AX2

SmartLabel like RF630L 6GT2810-2AE82-0AX1 as tamper-proof version with safety perforation.

Industry Mall

SIMATIC **RF630L**
6GT2810-2AE82-2AX0

PET white, 45 x 20 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 160 °C), 76.2 mm (3“) core diameter, 5 m range.

Industry Mall

SIMATIC **RF630L**
6GT2810-2AE83-0AX0

PET white, 75 x 25 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 130 °C), 76.2 mm (3“) core diameter.

Industry Mall

SIMATIC **RF630L**
6GT2810-2AE83-0AX1

PET white, 105 x 25 mm, 860 to 930 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 130 °C), 76.2 mm (3“) core diameter, 5 m range.

SIMATIC RF600: SmartLabels

Website

Passive and maintenance-free, they guarantee smooth operation.

Industry Mall

SIMATIC **RF630L**
6GT2810-2AE83-1AX0

PET white, 45 x 20 mm, 860 to 930 MHz, EPC 16-byte / 128-bit, no user memory, strongly adheres to plastic, printable, -25 °C to +85 °C (short term 130 °C), 76.2 mm (3“) core diameter, 5 m range.

Industry Mall

SIMATIC **RF630L**
6GT2810-2AB04-0AX1

Paper white, 4 x 2“, 860 to 930 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, strongly adheres to plastic, printable, -25 °C to +80 °C, 76.2 mm (3“) core diameter, 5 m range.

Industry Mall

SIMATIC **RF642L**
6GT2810-3AC00

PET, 50 x 22.5 x 1.6 mm; 860 to 868 MHz / 902 to 928 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, self-adhesive on metal/plastic, printable, -25 °C to 85 °C, 76.2 mm (3“) core diameter, 4 m range.

Industry Mall

SIMATIC **RF642L**
6GT2810-3AC10

PET, 50 x 22.5 x 1.6 mm; 860 to 868 MHz / 902 to 928 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, self-adhesive on metal/plastic, printable, -25 °C to 85 °C, 76.2 mm (3“) core diameter, 4 m range.

Industry Mall

SIMATIC **RF682L**
6GT2810-2AG84-0AX2

Nomex, 156 x 40 x 0.4 mm, 860 to 930 MHz, EPC 56-byte / 448-bit, user memory 256-byte / 2048-bit, for assembly, printable, -40 °C to 200 °C (short term 230 °C), stacked, no core diameter, 6 m range.

SIMATIC Ident Systems overview

Website

Fully functional, best-in-class reading system with a single order.

Industry Mall

Complete, pre-configured and ready-to-use system for identifying and tracking objects on conveyors using RFID. Industry-proven components and “UHF for Industry” algorithms ensure a reliable reading system for Tires, Intralogistics and Discrete Industries.

Your benefits at a glance:

- Identify and track various objects on conveyors in intra-logistics or production and easily achieve product ID-driven sorting and path routing
- “UHF for Industry” algorithms and industrial-proven components deliver outstanding reading performance
- Easy and quick installation, commissioning and integration into existing automation systems, no expert knowledge needed
- Reliable combination of hardware, software and services

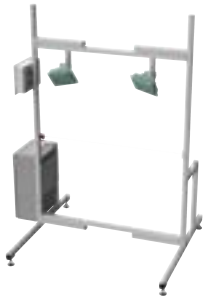
Get to know the members of the product family

SIMATIC Ident Systems

SIMATIC Ident Systems: SIMATIC Ident CB Gate

Website

Identify and track various objects on conveyors.



Industry Mall

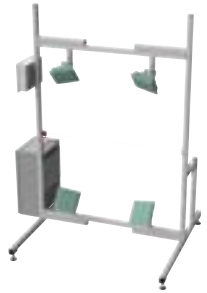
SIMATIC Ident **CB 2H Gate**

System with two antennas; standard acquisition software; RFID and automation components incl. HMI panel, control cabinet and metal structure; ETSI, FCC, CMIIT versions; expandable 1.55 – 1.95 x 2 x 1.2 m (W x H x D), weight 53 kg.

Industry Mall

SIMATIC Ident **CB 4 Gate**

System with four antennas; standard acquisition software; RFID and automation components incl. control cabinet and metal structure; ETSI version; expandable 1.55 – 1.95 x 2 x 1.2 m (W x H x D), weight 53 kg.



Industry Mall

SIMATIC Ident **CB 4H Gate**

System with four antennas; standard acquisition software; RFID and automation components incl. HMI panel, control cabinet and metal structure; ETSI, FCC, CMIIT versions; expandable 1.55 – 1.95 x 2 x 1.2 m (W x H x D), weight 53 kg.

Industry Mall

SIMATIC Ident **CB 4H Gate for Tire**

System with four antennas; special acquisition software for tire incl. side detection; RFID and automation components incl. HMI panel, control cabinet and metal structure; ETSI, FCC, CMIIT versions; expandable 1.55 – 1.95 x 2 x 1.2 m (W x H x D), weight 53 kg.

SIMATIC RF1000 overview

Website

Industry Mall

Order your Starter Kit now!

Permits access management using existing employee IDs.

Your benefits at a glance:

- Individual control of access rights and prevention of operating errors
- Individual, centralized assignment of rights via central databases including Active Directory
- Easy integration in HMIs via PM-Logon and PLC/ PC integration via Modbus TCP and XML

You can easily and flexibly boost process security thanks to electronic access management. SIMATIC RF1000 uses existing employee IDs as the basis for the necessary identification, allowing you to implement finely-graded access concepts, document processes, or store user-specific notes and instructions at a minimal cost.

Get to know the members of the product family

Readers

ID

SIMATIC RF1000: readers

Website

Discover a new level of simplicity in access control for machines and plants.

Industry Mall

SIMATIC **RF1040R**

Robust, compact, shallow mounting depth; standards: HF, LF; USB interface (1.8 m cable with USB connector, type A) and additional RS232 interface.

Industry Mall

SIMATIC **RF1060R**

Robust, compact, shallow mounting depth; standards: HF; USB interface (1.8 m cable with USB connector, type A) for connecting to Windows-based computers.

Industry Mall

SIMATIC **RF1070R**

Robust, compact, shallow mounting depth; standards: HF including Legic; with USB and RS232 interfaces.

Industry Mall

SIMATIC **RF1070R OEM**

Robust, compact, shallow mounting depth; standards: HF including Legic; OEM version with neutral front film for customer-specific design; with USB and RS232 interfaces.

Industry Mall

SIMATIC **RF1140R**

Robust, compact, shallow mounting depth; standards: HF, LF; Power over Ethernet or 24 V connector; RJ45 interface; Web-based management; XML and Modbus TCP protocols.

Industry Mall

SIMATIC **RF1170R**

Robust, compact, shallow mounting depth; standards: HF, including Legic; Power over Ethernet or 24 V connector; RJ45 interface; Web-based management; XML and Modbus TCP protocols.

SIMATIC RF1000: transponders

Website

With RFID for secure access control for machines and plants.

The transponders listed below are ideal for use with the SIMATIC RF1000 system.

Industry Mall

MDS D100

85 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, printable on both sides, up to +80 °C, IP68, 650 mm range.

Industry Mall

MDS D124

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, NXP ICODE SLI, 112-byte user memory, non-printable, heat-resistant up to +180 °C, IP68, 300 mm range.

Industry Mall

MDS D200

86 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, TI TAGIT HFI, 256-byte user memory, printable on both sides, adhesive, up to +60 °C, IP67, 600 mm range.

Industry Mall

MDS D324

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, INFINEON SRF 55V10P, 992-byte user memory, non-printable, M3 screw, adhesive, heat-resistant up to +140 °C, IP67, 280 mm range.

Industry Mall

MDS D400

85 x 54 x 0.8 mm (L x W x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, adhesive, printable on both sides, up to +60 °C, IP67, 650 mm range.

SIMATIC RF1000: transponders

Website

With RFID for secure access control for machines and plants.

Industry Mall

MDS D424

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 2000-byte FRAM user memory, M3 screw, adhesive, non-printable, up to +100 °C, IP67, 300 mm range.

Industry Mall

MDS D524

27 x 4 mm (Ø x H), ISO 15693, frequency 13.56 MHz, FUJITSU MB89R118, 8192-byte FRAM user memory, M3 screw, adhesive, non-printable, up to +100 °C, IP67, 300 mm range.

Industry Mall

MDS E600

Data memory (752-byte EEPROM) in credit card format; universally usable; degree of protection IPA; up to +60 °C; max. read / write range 70 mm.

Industry Mall

MDS E611

Data memory (752-byte EEPROM) in credit card format; universally usable; degree of protection IP68; up to +85 °C; max. read / write range 100 mm.

On a fast track to your **optimal OID system**

Our high-end readers with high-performance image capture excel thanks to their reading reliability, even under the most difficult conditions. Select the perfect camera to meet your needs from our extensive portfolio. Products include fully pre-equipped – as well as individually configurable – devices with various resolutions and comprehensive accessories, like ring lights and lenses. The intuitive user interface of the integrated web server makes commissioning seem like child's play.

SELECTION CRITERIA

OID

SIMATIC MV500 reads reliably in record time, even under difficult conditions

SIMATIC MV300 sits comfortably in your hand and is suitable for mobile use

SIMATIC MV500 overview

Website

Reliably reads in record time, even under difficult conditions.

Industry Mall

Order your Starter Kit now!

Your benefits at a glance:

- Easy handling thanks to a one-button operating concept for network and reading configuration
- Seamless integration into the TIA automation environment: function blocks available, cost-efficient installation, faster commissioning, simple parameterization thanks to technology objects

Thanks to their multicore processor, these high-end readers feature high reading performance even under the most difficult conditions. These devices can be flexibly adapted to your particular task in terms of resolution, lighting, and lenses. The intuitive user interface of the web server makes commissioning easy.

Get to know the members of the product family

Stationary optical readers

SIMATIC MV500: stationary optical readers

Website

Experience a new level of reading performance that can be scaled to your specific task.

Industry Mall

SIMATIC **MV530**

Compact optical readers with image capture rates <= 100 images per second; resolution: SD and HD; image field and operating distance (approx. 5 cm to approx. 20 cm) predefined; PROFINET/IE (PoE), IP67.

Industry Mall

SIMATIC **MV540**

Optical readers with image capture rates <= 100 images per second; resolution: SD and HD; image field and operating distance selectable depending on lens; PROFINET/IE (PoE), IP67.

Industry Mall

SIMATIC **MV550**

Optical readers with image capture rates <= 100 images per second plus Gigabit Ethernet interface; resolution: SD and HD; image field and operating distance selectable depending on lens; PROFINET/IE (PoE), GigE; IP67.

Industry Mall

SIMATIC **MV560**

Optical readers with image capture rates <= 60 images per second plus Gigabit Ethernet interface; resolution: UD and XD; image field and operating distance selectable depending on lens; PROFINET/IE (PoE), GigE, IP67.

SIMATIC MV300 overview

Website

Sits comfortably in your hand and is suitable for mobile use.

Industry Mall

SIMATIC MV300 optical handheld readers are suitable for the portable reading of DMCs and barcodes on many different surfaces. This especially applies to labels with higher contrasts but it can also easily be used for codes with lower contrasts on an application-specific basis. A variety of interfaces – RS232, USB, or Bluetooth – open up new opportunities for universal use.

Your benefits at a glance:

- Powerful 1D / 2D code reading, including low-contrast codes
- Flexible interface connection (RS232, USB, Bluetooth, communication module connection)
- Robust, ergonomic design for manual workstations

Get to know the members of the product family

Optical handheld readers

SIMATIC MV300: optical handheld readers

Website

Don’t compromise when it comes to reliably reading 1D and 2D codes with handheld readers.

Industry Mall

SIMATIC **MV320**

Robust, high-performance barcode and data matrix reader (high resolution); cabled communication.

Industry Mall

SIMATIC **MV326**

Robust, high-performance barcode and data matrix reader (high resolution); suitable for wireless communication.

Easy integration in all standard automation environments

To fully display their strengths, industrial identification systems must be seamlessly integrated in existing automation. The communication modules that this requires are also available in the SIMATIC Ident portfolio. They are especially compact devices with a high degree of protection that makes them suitable for harsh industrial environments and able to be used in applications where space is at a premium. The standardized connection between readers and communication modules permits maximum transfer rates. Moreover, the communication modules are extremely easy and flexible to integrate in standard industrial systems.

SELECTION CRITERIA

INTEGRATION

Connection to industrial bus systems

Connection to SIMATIC controllers and distributed I/Os

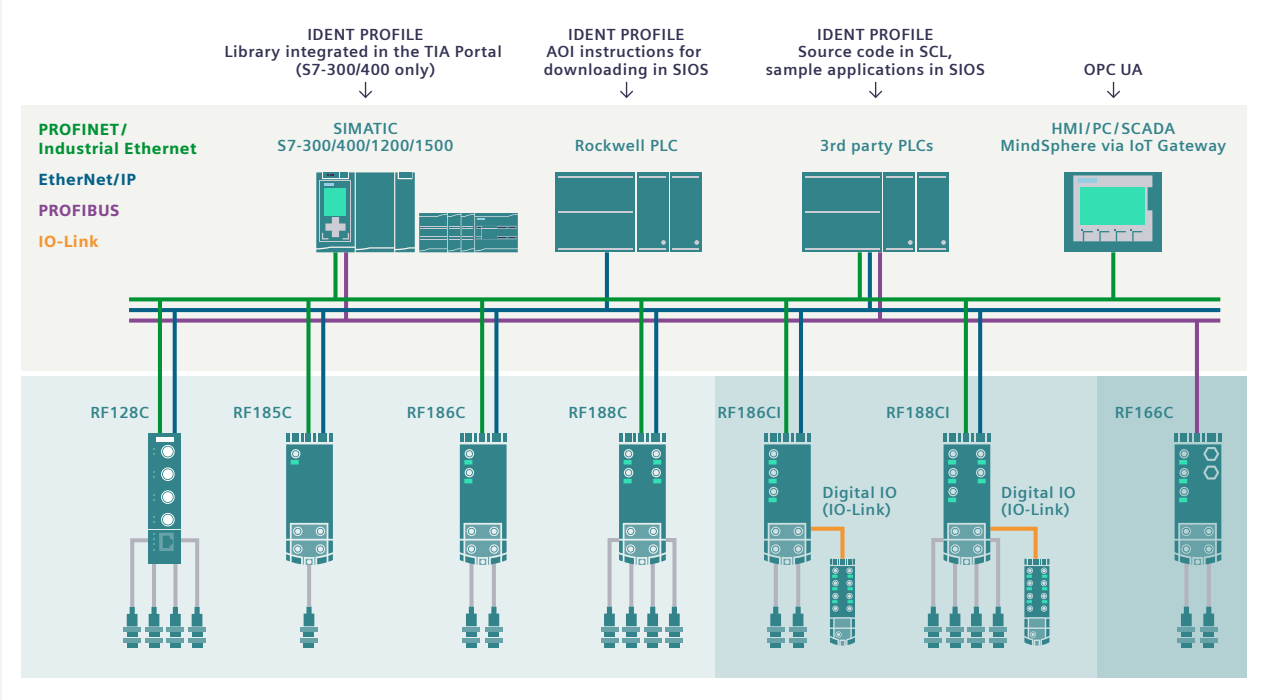
Connection to cloud applications

Connection to IO-Link master systems

Communication modules for connecting to industrial bus systems

Website

Seamless integration via various protocols.



Industry Mall

The RF128C, RF185C, RF186C/CI, RF188C/CI, and RF166C communication modules offer a variety of options for connecting to automation. Parallel reader control with optimized function blocks ensures top performance. The configuration can also be adapted during operation via integrated web-based management. Any errors can be efficiently corrected using the integrated diagnostics options.

Your benefits at a glance:

- Tailored configuration thanks to different connection versions (1-, 2-, or 4-channel)
- Modular system configuration with standard function blocks in the TIA Portal
- Parallel connection to two applications – e.g. control system and cloud monitoring
- Integrated IO-Link master for connecting various standard sensors or actuators

Communication modules for connecting to industrial bus systems

Website

Seamless integration via various protocols.

Industry Mall

RF128C

For connecting up to four readers to PROFINET, EtherNet/IP, and XML, with IP20.

Industry Mall

RF185C

For connecting a reader to PROFINET, EtherNet/IP, OPC UA, and XML.

Industry Mall

RF186C

For connecting up to two readers to PROFINET, EtherNet/IP, OPC UA, and XML.

Industry Mall

RF186CI

For connecting up to two readers and up to eight sensors and eight actuators to PROFINET, EtherNet/IP, OPC UA, and XML.

Industry Mall

RF188C

For connecting up to four readers to PROFINET, EtherNet/IP, OPC UA, and XML.

Industry Mall

RF188CI

For connecting up to four readers and up to eight sensors and eight actuators to PROFINET, EtherNet/IP, OPC UA, and XML.

Communication modules for connecting to industrial bus systems

Website

Seamless integration via various protocols.

Industry Mall

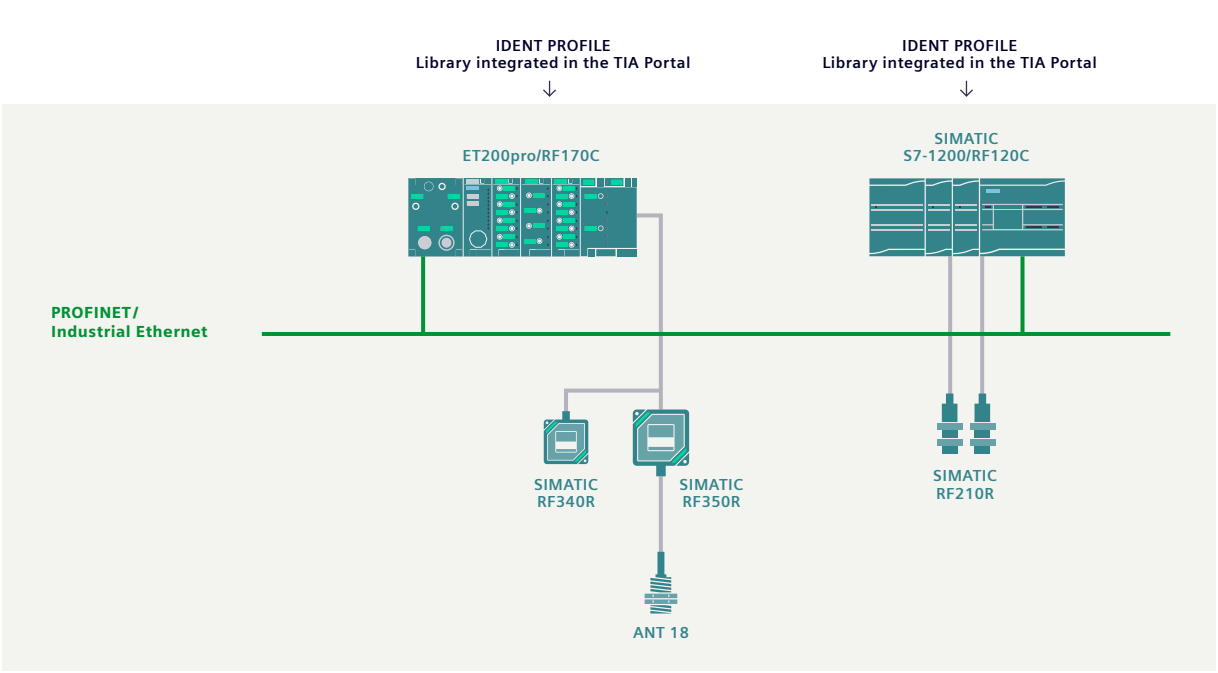
RF166C

For connecting up to four readers to PROFIBUS.

Communication modules for connecting to SIMATIC controllers and distributed I/Os

Website

Direct connection to SIMATIC S7-300, SIMATIC S7-1200, and SIMATIC ET 200pro.



Industry Mall

With the RF120C and RF170C communication modules, you can connect a SIMATIC Ident device directly to SIMATIC S7-300 and SIMATIC S7-1200 controllers as well as to SIMATIC ET 200pro distributed I/Os. Bus systems with the corresponding additional cables or hardware components are not required.

Your benefits at a glance:

- Cost-efficient and high-performance integration into the automation environment
- TIA Portal system integration with standard function blocks
- Suitable cabinet installation thanks to proven DIN rail mounting

Communication modules for connecting to SIMATIC controllers and distributed I/Os

Website

Direct connection to SIMATIC S7-300, SIMATIC S7-1200, and SIMATIC ET 200pro.

Industry Mall

RF120C

For connecting SIMATIC Ident systems to SIMATIC S7-1200 controllers.

Industry Mall

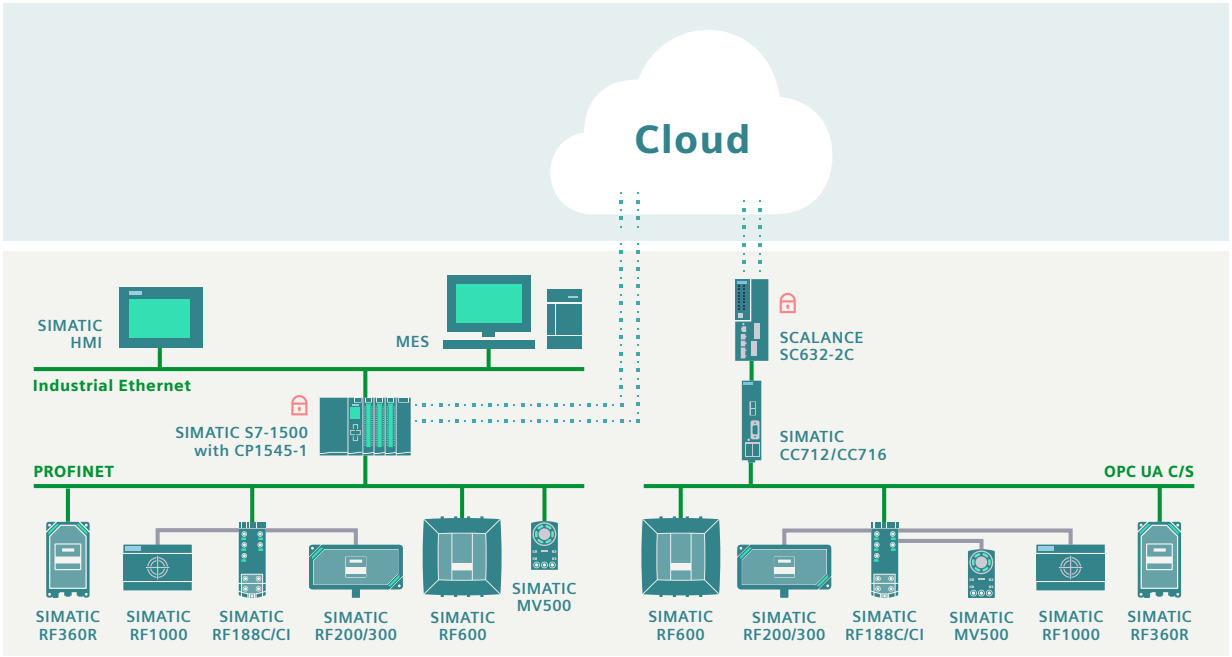
RF170C

For connecting SIMATIC Ident systems to the SIMATIC ET 200pro distributed I/O system.

IoT gateways for connecting to cloud applications

Website

Direct connection to cloud applications.



For future-oriented operation in the IIoT environment, our readers and communication modules can be connected to various cloud applications via OPC UA in a way that is standardized and secure. In this case, CP1545-1 and SIMATIC CC712 and CC716 serve as IoT gateways. Object data can then be used for cross-manufacturer communication and analysis, resulting in a long-term increase in transparency within the supply chain.

Your benefits at a glance:

- Universal options for cloud integration from a single source
- Standardized OPC UA Stack (according to OPC UA AutoID Companion Specification)
- Parallel connection to PROFINET possible

Industry Mall

IoT gateways for connecting to cloud applications

Website

Direct connection to cloud applications.

Industry Mall

SIMATIC **CC712**

Transfers data to various cloud platforms like MindSphere; 2 x Ethernet RJ45; field protocols: S7, Modbus MES / Cloud; protocols: MQTT, OPC UA.

Industry Mall

SIMATIC **CC716**

Transfers data to various cloud platforms like MindSphere; 2 x Ethernet RJ45, 1 x MPI / PB; field protocols: S7, Modbus MES / Cloud; protocols: MQTT, OPC UA.

Industry Mall

SIMATIC **CP 1243-1**

Communications processor for connection of SIMATIC S7-1200 as additional Ethernet interface and for connection to control centers via telecontrol protocols (DNP3, IEC 60870, TeleControl Basic), security (Firewall, VPN).

Industry Mall

SIMATIC **CP 1243-7 LTE**

Communications processor for connection of SIMATIC S7-1200 to LTE network.

Industry Mall

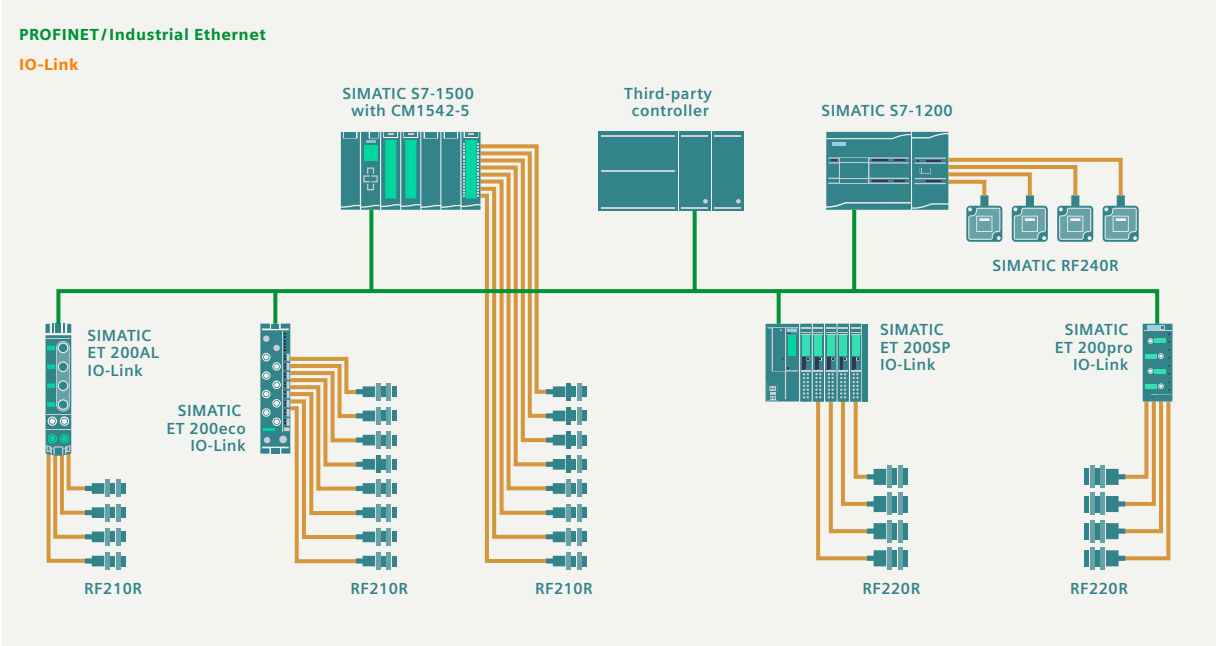
SIMATIC **CP 1545-1**

Enables simple and reliable data transfer to MindSphere or another cloud solution that supports the standardized MQTT protocol.

IO-Link master modules for integration in IO-Link master systems

Website

Seamless integration in IO-Link master systems.



Industry Mall

Our portfolio contains numerous IO-Link master modules for all peripheral devices. The standardized IO-Link interface makes it possible to integrate our RFID readers in IO-Link master systems from different manufacturers. In addition, a simple point-to-point connection significantly reduces wiring effort.

Your benefits at a glance:

- No RFID-specific programming necessary
- Cost-efficient integration of numerous RFID reading points
- Up to eight IO-Link ports based on IO-Link Specification V1.1 or V1.0

IO-Link master modules for integration in IO-Link master systems

Website

Seamless integration in IO-Link master systems.

Industry Mall

IO-Link Master for ET 200SP

For integrating SIMATIC ET 200SP distributed I/Os and up to four SIMATIC RF200 IO-Link readers.

Industry Mall

IO-Link Master ET 200AL

For integrating SIMATIC ET 200AL distributed I/Os and up to four SIMATIC RF200 IO-Link readers.

Industry Mall

IO-Link Master ET 200pro

For integrating SIMATIC ET 200pro distributed I/Os and up to four SIMATIC RF200 IO-Link readers.

Industry Mall

IO-Link Master S7-1200 Basis

For integrating the S7-1200 controller and up to four SIMATIC RF200 IO-Link readers.

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IO-Link Master S7-1500 Basis

For integrating SIMATIC ET 200MP distributed I/Os and SIMATIC S7-1500 controllers and up to eight SIMATIC RF200 IO-Link readers.

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For integrating SIMATIC ET 200eco PN distributed I/Os and up to eight SIMATIC RF200 IO-Link readers.

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For additional information on industrial security measures that may be implemented, please visit
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Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase a customer's exposure to cyber threats.

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