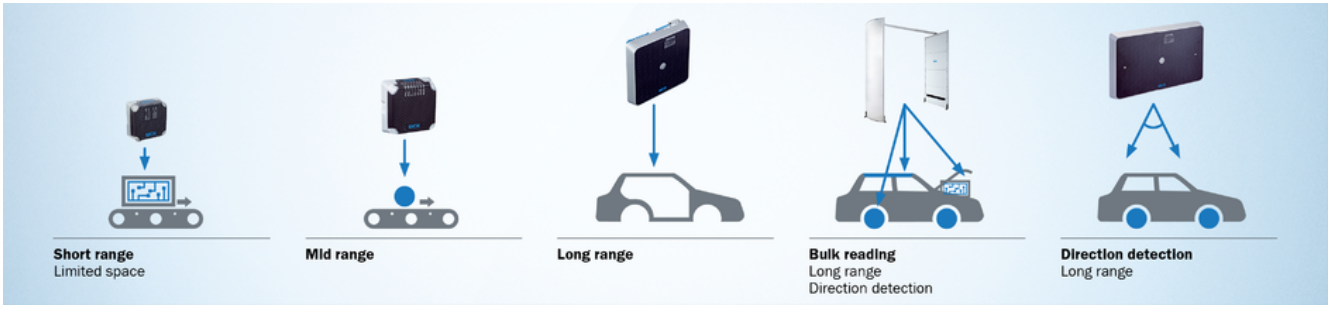
Product overview

RFU61x

UHF transponder identification using a compact RFID read/write device for short sensing ranges

SICK
Sensor Intelligence.

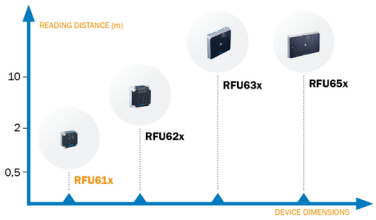
Advantages



Complete transparency with the RFU family

Continuous and company-wide identification with a single technology is now possible for the first time. The RFU61x achieves complete transparency in production and logistics processes – from component assembly to the shipment of the end product. The foundation for this is UHF RFID technology: IIoT applications with scanning ranges of 0 to 10 m, bulk reading and resistance to interfering factors such as light, dirt and dust. A direct line of sight to the data card is also not required.

Continuous identification solution for production and logistics process



The RFU61x complements the near field product portfolio. A continuous UHF RFID identification solution for read/write ranges of 0 to 10 m is therefore possible for the first time.

The RFU family features a uniform operating and configuring interface. The user-friendly software ensures quick and easy installation as well as fault-free operation.

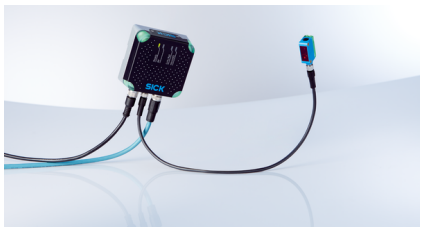
SICK supports the planning and design of the read/write stations and helps to select a suitable transponder. A worldwide network of service technicians is available for commissioning at the customer site.

The RFU61x RFID read/write device, part of the RFID identification solutions from SICK, is allowing for full transparency along the entire value chain for the first time - and all with one technology

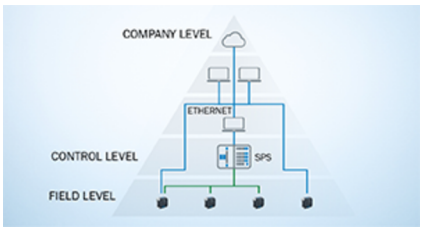
Intelligent UHF RFID identification in the smallest of spaces

The RFU61x is the smallest RFID read/write device of its type. It is optimally suited for IIoT applications for identifying workpieces or components. Diverse interfaces allow for the direct connection of trigger sensors. Intelligent data processing is already integrated. The RFU61x can therefore be used as a self-sufficient remote unit.

The RFU61x is optimally suited for applications with small installation spaces. Despite its compact dimensions, it offers the advantages of UHF technology.



The direct connection of a trigger sensor enables quick and easy commissioning.



The integrated process logic cleverly processes read data for all target systems from the control to the cloud.

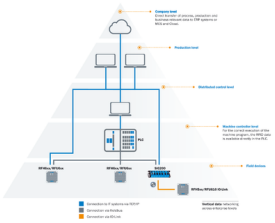
The compact RFU61x is optimally suited for applications which do not offer much installation space. The sensor independently performs the triggering, reading and writing as well as processing of data.

IO-Link

SICK is a co-founder of IO-Link and offers a very broad range of IO-Link products. Together with many other sensors and actuators, identification solutions from SICK use IO-Link interfaces to generate and receive data and information that go beyond

conventional switching signals or measured process parameters. Here you will learn how you can use different sensors combined with the IO-Link Master.

Your advantages at a glance



Increases system productivity
Integration of the sensors at the fieldbus level enables continuous communication up to the cloud. It also allows sensor data to be stored centrally and called up as needed, which is a good basis for increasing system productivity.

Wide range of solutions
The range of solutions from SICK includes many different devices with IO-Link. This enables a uniform communication infrastructure. In addition to the sensors, IO-Link Masters and other software from SICK also play a key role.

Quick and easy device replacement
Easy device exchange due to automated device identification: When using IO-Link devices in connection with the IO-Link Master, device parameters can be transmitted to replacement devices quickly and easily. Specially trained staff, additional tools or instructions are not required.

With point-to-point communication protocols, IO-Link ensures seamless sensor integration into automation networks. This creates the basis for data transparency down to the lowest field level. This opens up new approaches for digitalization. The data obtained helps to increase flexibility, reliability and efficiency and makes it possible to reduce costs in your plant.

Technical data overview

Product category	RFID read/write device with integrated antenna
Frequency band	UHF (860 MHz ... 960 MHz)
Version	Short Range
Reading range	≤ 0.5 m
Ethernet	✓, TCP/IP, PoE, OPC UA
PROFINET	✓
EtherNet/IP™	✓
USB	✓
IO-Link	✓, IO-Link V1.1
Weight	313 g

Product description

The RFU61x is the smallest read/write device in the UHF portfolio from SICK. It is perfectly suited for IoT applications directly on the workpiece or component. The RFU61x therefore rounds out the UHF product portfolio from SICK by enabling continuous identification along the entire value chain. The interfaces of the RFU61x enable direct connection of a trigger sensor, whereby the RFU61x can be used as a remote, self-supporting unit. Thanks to the integrated process logic, data can be processed directly in the RFU61x and passed onto the controller or IT systems. Like the other Ethernet-based RFU devices, the RFU61x can also be programmed according to individual requirements using the SICK AppSpace eco-system.

At a glance

- Extremely compact design
- Scanning range up to 0.5 m
- Connection option for trigger sensors
- Flexible interface concept (e.g. PROFINET, EtherNet/IPTM, OPC-UA, IO-Link (via IO-Link master))
- Integrated antenna and data processing
- Configuration via SOPAS ET
- Ethernet-based variants: Compatible with SICK AppSpace
- Rugged design (IP67)

Your benefits

- Versatile application possibilities due to small size
- Quick and low-cost installation thanks to direct connection option for trigger sensors
- Very little programming work needed in the control thanks to process logics integrated in the device
- Easy configuration through SOPAS ET saves time and costs for testing and commissioning
- Simple connection with M12 cable for IO-Link variants
- Depending on the device variant, SICK AppSpace offers a high level of flexibility when programming individualized software solutions
- Rugged design for reliable operation, even in tough industrial environments

Fields of application

- Workpiece identification on assembly lines
- Identification of production material in machines
- Load identification on mobile platforms
- Material procurement in E-Kanban
- Container identification in conveyor systems

Ordering information

Other models and accessories ➜ www.sick.com/RFU61x

- **Frequency band:** UHF (860 MHz ... 960 MHz)
- **Reading range:** ≤ 0.5 m (Depending on transponder used and ambient conditions.)
- **Enclosure rating:** IP67

Radio approval	Type	Part no.
Brazilian	RFU610-10604	1104444
China	RFU610-10705	1130197
China, Thailand	RFU610-10605	1101394
European Union	RFU610-10700	1115779
European Union, South Africa, United Arab Emirates	RFU610-10600	1091102
India	RFU610-10603	1104443
Japan	RFU610-10607	1104447
Korea	RFU610-10610	1104446
Malaysia	RFU610-10614	1104441
Singapore	RFU610-10609	1104449
Taiwan	RFU610-10613	1104445
	RFU610-10713	1135693
USA, Canada, México	RFU610-10601	1099890
Vietnam	RFU610-10618	1104448

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com