# Transparent material flow with RFID

Space-saving, reliable, and flexible – the RFU65x RFID from SICK

**Waldkirch/Hanover, May 2016 – The new RFU65x RFID from SICK, presented at CeMAT 2016 in Hanover, enables a consistently transparent material flow. It detects tags at long range, recording the direction in which objects are moving at the same time. The associated user data can be sent directly to an ERP or MES system. This reduces processing times and increases production efficiency.**

Identification and location solutions that combine maximum availability with a transparent material flow are vital for effective product traceability. Conventional RFID devices record RFID tags over long distances depending on sender power, aperture angle, tag properties, and application environment. Until now, directions of movement could only be derived by using additional, external antennae and intelligent algorithms. With the new technology supported by the RFU65x, both position and angle can be determined and direction of movement can be detected. Even tags which are moving in opposite directions at the same time can be detected and their directions of movement recorded.

**Refined, tried-and-tested RFID technology**

The operating range of the new RFU65x covers an angle of +/- 45° with a typical sensing range of up to five meters. RFID tags are recorded below a certain measuring angle in relation to the zero point of the reader. Algorithms can be used to derive instances of passage – including the direction of movement – from the various measuring points.

The RFU65x RFID thus saves space, time, and money in applications for identifying vehicles and vehicle parts. Although objects with tags that are located in the immediate vicinity are identified, they are filtered out as “static” tags and only used if required for diagnostic purposes. As well as cutting costs, the RFU65x also simplifies and accelerates application processes in logistics and the automotive industry.

The product family provides system integrators with the ability to install additional application software directly within variants of the RFU6xx. The user can develop and manage device-specific application software through the SICK development environment, and even transfer this to other devices. This can be facilitated via a range of programming techniques, including JAVA, LUA, and C++ (in the planning stages). The platform thus offers maximum flexibility to support solutions for the IT tasks of the future.

**RFID – Intelligent identification**

The high impetus in global markets produces an ever-increasing competitive pressure. More stringent standards, shorter and shorter product lifecycles, and individual customer requests place high demands on data transparency within a company. In logistics, centralized data management and current data standards ensure transparency along the entire supply chain. They provide common access to important information concerning production-related questions, and span location, national, and company boundaries.

Using RFID technology brings numerous benefits, accelerating logistics processes and automating data recording. Data recording is carried out flawlessly and also enables additional data to be obtained, significantly increasing the transparency of processes.

Image: RFU65x\_IM0061699.jpg  
The RFU65x is a measuring RFID device with integrated passage and direction detection.

SICK is one of the world’s leading producers of sensors and sensor solutions for industrial applications. Founded in 1946 by Dr.-Ing. e. h. Erwin Sick, the company with headquarters in Waldkirch im Breisgau near Freiburg ranks among the technological market leaders. With more than 50 subsidiaries and equity investments as well as numerous agencies, SICK maintains a presence around the globe. In the fiscal year 2015, SICK had more than 7,400 employees worldwide and achieved Group sales of just under EUR 1.3 billion.