# Track and Trace – the vertical integration for Industry 4.0

Production and logistics chains are growing together with RFID

Waldkirch/Hanover, April 2015 – At the Hannover Messe Industrie (HMI) trade fair, SICK AG will be demonstrating how continuous data recording on the vehicle itself can be used to identify a customized dream car through the entire production process right through to delivery. Using the example of this track and trace process, the company will be demonstrating how increasing product customization can be implemented in the context of Industry 4.0.

The sensor technology detects which assembly steps must be taken on the basis of the car body itself – thus ensuring unique identification – and guarantees continuous transparency right through to delivery. Processing steps on the object are updated via rewritable RFID transponder. Reading reliability is a must, as errors could lead to misrouting, mix-ups, or loss of production. This is where RFID data cards – which can be attached to components or even integrated unseen within them – are coming into play more and more. They ensure maximum availability in practice – for example, when subjected to high temperatures on the painting line – and can then be reliably identified once covered in paint.

Keyword: “Batch size 1”

Aspects such as transparency and traceability are playing an increasingly essential role for manufacturers – particularly as the level of variability in the production lines of large automobile plants is constantly on the rise and assembly lines are seeing ever more variants installed in parallel.

Vertical integration is the keyword for track & trace. The traceability of products during complex manufacturing and logistics processes stands at the forefront of this field. A transparent material flow is required in production and logistics so that production decisions can be made more quickly.

Delivery

The transparent material flow based on RFID plays a key role at the delivery stage too. Until the completed cars are ready to be picked up and transported to the dealerships, they are left parked in large parking lots. The problem occurs when it comes to finding a car that has to be transported. Every single car is made-to-order. Every car is different to the next. However, when information is stored on an RFID tag, the customer's dream car is located quickly and can be loaded up for transport in no time. This ensures transparency and traceability monitoring right through to the customer.

Image: Track\_Trace\_IM0042851.jpg

Reliable, unmistakable identification with RFID on the object itself.

SICK is one of the world's leading manufacturers of sensors and sensor solutions for industrial applications. Founded in 1946 by Dr.-Ing. h. c. 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 representative offices, SICK maintains a presence all around the globe. In the 2013 fiscal year, SICK had more than 6,500 employees worldwide and achieved Group sales of EUR 1,009.5 million.  
  
Additional information about SICK is available on the Internet at http://www.sick.com or by phone at +49 7681 202-4183.