# Intelligent sensor technology in the cloud

SICK demonstrates Industry 4.0

Waldkirch/Hanover, April 2015 – At the Hannover Messe Industrie (HMI) trade fair, SICK AG will be using an intralogistics evaluation station to demonstrate independent process optimization – one of the aims of Industry 4.0 – on the basis of global intralogistics processes.

The intralogistics evaluation station, which is fitted with high-performance sensor technology from SICK, is used to generate object data from transported goods on a continual basis and to analyze it locally. The exhibit will demonstrate the networking of the object data from different intralogistics evaluation stations around the world by means of a cloud solution. If changes to this object data are detected, e.g., damage to a parcel, an alarm message is triggered autonomously and automatically, including the transfer of all available status data, and optimization of the quality process is initiated.

Intelligent sensor technology for complete transparency

Various goods are transported at high speeds and with a high degree of variance, while being weighed and measured at the same time. The sensor technology identifies the goods with camera-based and laser-based code readers, while the volume is determined with laser scanners, light grids, and encoders. At the same time, an integrated weighing system determines the weight of the goods.

The main task of the sensor technology is to ensure high performance levels for the sorting and, hence, the transport of the goods. As well as the object data, additional performance data relating to the status of the sensors, the speed of the conveyor belt, or the quality of the labels is constantly being generated. This data is analyzed using the Package Analytics software from SICK in order to produce a comprehensive picture of the actual local situation.

**Big data – reliable data recording and analysis**

The presentation of data at a local level can be condensed at system or factory level if necessary before being transferred to the cloud. The data delivered to the cloud by the sensors can be evaluated according to different user criteria. For example, apps can be developed which allow the end customers to track the individual goods during the transport process on their smartphones. It is also conceivable that alarm workflows will be triggered in the event of performance problems or faults and that changes in the status of the goods will be detected in the logistics chain.

This enables performance and status control within a worldwide company/production network. The system allows local performance control in real time, cloud-based automation and optimization of processes and, furthermore, a multitude of new possibilities for evaluating and processing the centrally collected sensor data.

Image: belt\_conveyor.jpg

SICK AG demonstrates the digitalization of the material flow using a hybrid cloud solution.

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.  
  
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