

Digitally monitoring fill levels – Endress+Hauser sends measuring data directly into the Cloud

The FWR30 Micropilot sensor from Endress+Hauser provides for cost-efficient digitalisation of fill-level measuring points when using intermediate bulk containers. Wherever previously only assumptions about fill levels were possible, contactless and reliable stock monitoring of liquids is to be possible with little effort.



Digital monitoring of plastic tanks: The FWR30 Micropilot enables the measurement of fill levels in mobile containers. (Photo: © Endress+Hauser)

Optimisation of logistics and storage processes

Intermediate bulk containers, or IBCs for short, are ever-present in logistics processes. Many industrial companies use the stackable containers for storing and transporting liquids. Food and beverage producers prefer storing additives such as flavourings and colourings, or for storing and transporting agents for cleaning tanks and pipes in the large cube-shaped plastic containers. However, normally IBCs are used where there is no power connection to the process control system and cable installation for the fill level measurement is not economical. In short: If fill levels are nevertheless to be recorded, employees must determine these manually.

Endress+Hauser intends to solve this problem with the FWR30 Micropilot. The intelligent sensor enables the measurement of fill levels in mobile containers in which this was hardly possible up until now. "The measuring solution functions as a cloud-only approach completely without a process control system," explains Senior Product Manager Dietmar Haag of Endress+Hauser. Depending on the requirements of the respective application, the sensor connects to various digital services.



With the new FWR30 Micropilot fill level sensor, Endress+Hauser offers easy access to the Industrial Internet of Things. (Photo: © Endress+Hauser)

Digitalisation in three minutes

Following one-time commissioning, the FWR30 Micropilot sends its measured values at regular intervals. After installation and set-up work that takes approximately three minutes, the data are available visually in the Cloud and can be used in various applications as required. "Through this simple digitalisation of the measuring points, companies are provided with detailed data for the evaluation," says Haag.

All data can be retrieved with various terminal devices, like smart phones, tablets or desktop computers. The information comprises fill levels, the ambient temperature, measured value history and battery status. The sensor also supplies information on the location of the storage tanks. It has an alarm function that is triggered when freely definable limit values are dropped below or exceeded.

Certified data security

The 80 GHz radar technology is used for contactless measurement. The microwave beam of the device penetrates through the plastic containers and supplies the measured value. In addition, the certified Netilion Cloud Service is a major part of the solution. It accesses the data stored in the Cloud, processes them and uses them as the basis for further calculations and application cases. The service is to meet the highest security and data protection requirements according to European and German standards.

Additional information and contact

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