Micropilot FWR30

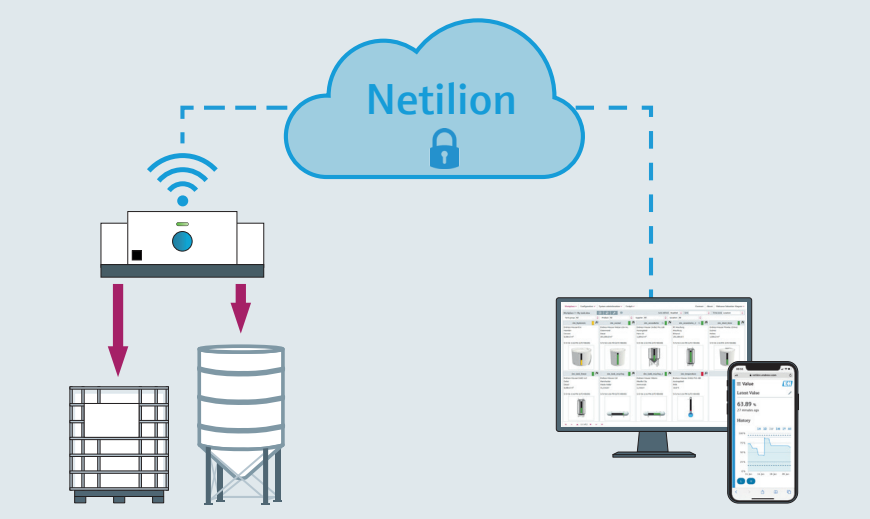
The cloud-connected level sensor

Benefits at a glance

- Simplified solution from procurement to operation
- Full transparency in storage and transportation of liquids
- Secure data transmission combined with a flexible digital service portfolio
- Information access from anywhere at any time

Technical information

- Communication type: SIM card with secure communication (NB-IoT, LTE-M with 2G fallback)
- Replaceable battery with more than 10 years' battery lifetime
- GPS location tracking
- Level technology: 80 GHz radar technology
- Measuring range: Up to 15 meters (50 feet)
- Temperature range: -20 to +60 °C (-4 to +140 °F)
- Software applications: From measuring point monitoring to inventory management



Tanks, silos and containers are often stored remotely or in changing locations. Thus, level measurement and inventory monitoring of stored liquids and solids is challenging. Standard methods like manual measurements are time-consuming, imprecise and increase the risk of process downtime caused by an empty container. In addition, available automated solutions are mostly inaccurate or uneconomical.

Combined with digital services, the Micropilot FWR30 is a pioneer in wireless 80GHz IIoT radar technology and provides the optimal solution for those challenges. It delivers continuous measurement data only a few minutes after installation through a cloud to mobile or stationary devices. Thereby it improves transparency, saves time and increases process safety. The combination of precise measurement technology and scalable digital services provides an economic solution for many applications.

Besides inventory management, the Micropilot FWR30 also allows the optimization of supply chains. Thanks to remote access and GPS location tracking, fill levels of stationary and mobile containers can be identified and controlled. As a result, unnecessary deliveries and time-consuming searches of container locations can be avoided. The possibility of remote monitoring facilitates new fields of applications and business models like "on-demand" services in the logistics of consumable supplies.

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Transparency at any time

The IIoT radar sensor and 80 GHz radar technology in the Micropilot FWR30 unite reliability and high-precision level measurement, delivering facts where previously only assumptions were possible. This combination of sensor and digital service provides data on stocks, and the status of the device, from anywhere at any time.
On top of that, the cloud-based solution gives information on precise container location, ambient temperature and measured value history as well as battery and connectivity status. And the certified Netilion cloud service provides the highest security and data protection possible.

Simplicity from scratch

From procurement to operation, the Micropilot FWR30, along with its software applications, is designed to simplify processes. With a provided mounting bracket or a pre-installed process connection, the compact device offers a flexible and simple mounting. With only a few simple steps, users can mount the sensor to a plastic tank or screw it into a metal tank using the thread adapter. Thanks to the integrated battery, no external power supply is needed. This, along with the latest wireless technologies such as NB-IoT and LTE-M, enables trouble-free use, even at hard-to-reach locations, allowing data to be obtained at low cost, and with low energy consumption, from anywhere. The installation of the sensor is done by simply pressing a button, and by scanning the QR code the system is ready for use.

Flexibility and scalability

Scalable digital services give users the flexibility to choose the best possible process support for every application. Depending on individual requirements, the Micropilot can be linked to the digital starter package Netilion Value; the resulting web application Netilion Inventory; or the comprehensive inventory management solution SupplyCare Hosting. The measurement data for all digital services can be retrieved via multiple end devices, such as smartphones, tablets or desktop computers.

Netilion Value is a simple digital monitoring solution. The web application provides a dashboard with current values, historical data, alarms, notifications and a simple user interface. Intelligent sensors can be integrated and connected with just a few clicks.

Netilion Inventory offers a simplified monitoring service to support basic inventory management applications. It comes with add-ons like volume calculation and forecast and determines the free storage capacity. This extended service provides the user with an easy overview of the status of tanks, silos and containers.

SupplyCare Hosting is a comprehensive inventory management solution that provides users with event history, a customizable overview and the evaluation of key performance indicators such as average stock, efficiency or turnover rate. Managing users is made simple with role-based, adaptable access rights allowing suppliers, customers and partners to collaborate in one software. SupplyCare Hosting also provides user-friendly demand planning and can be synchronized with all common ERP systems.

Typical applications

Remote level monitoring and inventory management of
- liquid additives and cleaning agents used in production processes
- solids like animal feed or building materials.

Location tracking in the logistics of
- plastic and metal tanks, silos or containers.

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