All key fermentation parameters

The Fermentation Monitor QWX43

The most important advantages at a glance.

Always on site so you don't have to be:

- Precise and repeatable measurements replace manual sampling and laboratory analysis
- Minute-by-minute update of the crucial process parameters
- Information can be retrieved at any time and from anywhere

Self-explanatory and practical:

- Data-driven process improvements through comparison of values from past batches and automatic notifications
- Automatic creation, saving and downloading of batches and measured values via the Endress+Hauser Netilion cloud
- Hygienic design enables tank-integrated cleaning
- Measured values are provided without complicated and time-consuming adjustments or calibrations

With the Fermentation Monitor QWX43 you can retrieve the measured values of your beer from anywhere.

A measuring device that supports you in your work: The Fermentation Monitor QWX43 continuously screens all parameters that are important for the fermentation process of your beer. The multi-sensor system provides precisely measured values that can be retrieved at any time and from anywhere.

For a stable brewing process, it is important to keep an eye on numerous parameters during fermentation. For example, to determine the residual extract, reference measurements are made once or twice a day at each fermentation tank using a beer spindle, refractometer or other laboratory equipment. This can take 10 to 15 minutes per tank, including sample preparation. In addition, the infrequent measurements only allow selective results. The end of the fermentation process or the ideal time for bunging can only be determined approximately.

Precise measurement in real time

The Fermentation Monitor QWX43 closes these data gaps. It measures the parameters that determine fermentation in real time. The data can be accessed directly via the control system or with the Endress+Hauser Netilion Value App via all internet-enabled devices. This gives you full insight into the fermentation process and saves you any further effort. In addition, you can set up alarms and thus be informed immediately about critical deviations in the fermentation process.

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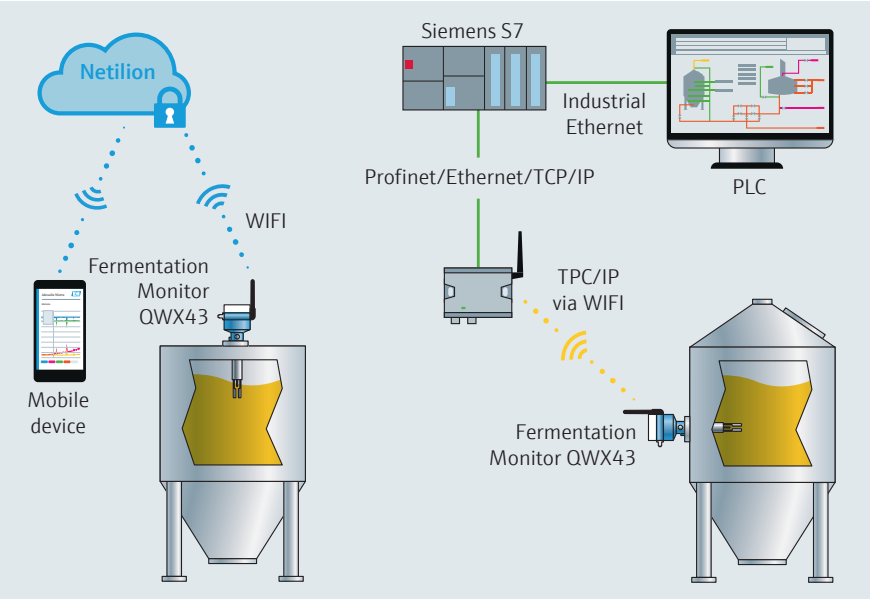

The measured values can be transferred directly to the control system or can be retrieved at any time via an Endress+Hauser app.

Self-explanatory and practical

The device can be easily attached to existing process connections and does not need to be adjusted or calibrated. Commissioning is done in just a few steps, after which the device works by itself. With just a few clicks in your control system or in the Netilion App you can inform yourself at any time what is currently happening in your fermentation cellar. If necessary, this enables quick intervention, safe control and optimization.

The Fermentation Monitor also reduces your documentation and filing effort and also replaces manual batch tracking in the control system.

With Netilion Value, it recognizes when a new batch starts and even creates it automatically for you. As a result - and thanks to the high measurement accuracy and resolution - the QWX43 also offers complex evaluations, for example comparisons with fermentations or fermentation models that have already been carried out. This not only saves you time, but also allows you to optimize your processes based on data.

Cleaning is also easy thanks to the fully hygienic sensor design. The device can always remain in the tank and does not need to be taken out of the tank for cleaning.

Simply explained: This is how the precise measured values are achieved

Once the device is installed in the tank, the **two tuning fork sensors and a temperature sensor between the fork paddles** are immersed directly in the beer. The tuning forks are set into oscillation. Based on the oscillation frequency, the device can precisely measure the density of the beer. An ultrasonic pulse is sent between the lower parts of the paddles. This measures how the acoustic velocity in the beer varies during the fermentation process. The temperature is measured with two temperature elements built within the sensor.

The Fermentation Monitor thus measures **density, acoustic velocity and temperature.** Viscosity is also measured. All values are processed with an algorithm and converted into the relevant parameters of the fermentation process.

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