

Microbiological safety in beverage production

Easy analysis for water and beverages

Key facts

Simple

- Easy workflow with minimized hands-on-time
- No trained laboratory personnel needed

Fast

- Get your results faster
- No need to wait for external analysis results
- Always be one step ahead and make the right decisions on time
- Results as early warning

On-site

- Save time by doing the analysis at your site
- Always keep the full control from sampling to result
- No time-consuming shipping process of your samples



The monitoring for possible microbial contamination in the beverage industry, even between regular testing intervals, is crucial for identifying risks at an early stage. The Analysis System from Endress+Hauser BioSense provides comprehensive support: from monitoring raw water to quality assurance of beverages and mineral waters. This ensures consistently high product quality.

Clear results are essential in quality assurance.

With its high sensitivity and easy handling, the system enables maximum safety and efficiency in quality assurance.

The fast assessment of microbial quality helps with...

- proactive quality assurance even between regular tests.
- full control over the sampling process.
- support for microbiology through specific PCR.
- quick response to irregularities.

Customer Opinion

"The analysis is significantly easier to perform compared to conventional PCR – fast, intuitive, and reliable. The Device BAB00 is extremely practical for everyday work, and the software is easy to operate."

– Yao Liang, PhD candidate in the Bioanalytics and Micro-analytical Systems research group at TUM

Advanced technology from Endress+Hauser BioSense

The Endress+Hauser Analysis System consists of the Device BAB00 and application specific Kits.

The Kits include all the necessary components for comprehensive analysis. In addition to the materials for sample preparation, Detection Modules are included, which can be easily inserted into the Device BAB00. These modules enable complex reactions in a compact space that would otherwise require multiple laboratory rooms and numerous devices. Storage is remarkably simple: at room temperature and for up to one year.

With its broad compatibility with different sample types, the system enables comprehensive testing.

Whether samples from drinking water sources or bottled water – each Kit can be used for a wide variety of sample types.

Not only does this make the analyses easy to perform, but it also saves a lot of resources.

By automating steps that are typically manual, valuable time is freed up for other tasks. Thanks to its universal applicability, the system is suitable for a wide range of use cases.

The Device BAB00 revolutionizes the fast and straightforward detection of beer spoilers and hygiene indicators.

By combining patented technologies for sample preparation and processing, centrifugal microfluidics, and advanced automation, it offers an efficient and resource-saving solution. Not only is the product range continuously expanded and optimized in close collaboration with customers, but the types of samples that can be analyzed are also constantly being added to meet diverse needs and requirements.

Wide range of possible applications



In production

Before production begins, the production environment can be tested for microbial contamination. This supports early detection and conserves resources.

During the production process, testing can be conducted along your process chain. This makes it easy to identify and eliminate potential sources of contamination.

After production, the success of cleaning can be verified through targeted testing. This ensures that contaminants are removed before they might affect the next batch.

Application examples:

- The final product, such as bottled water
- Raw water and process water
- Critical points, such as the cooling system



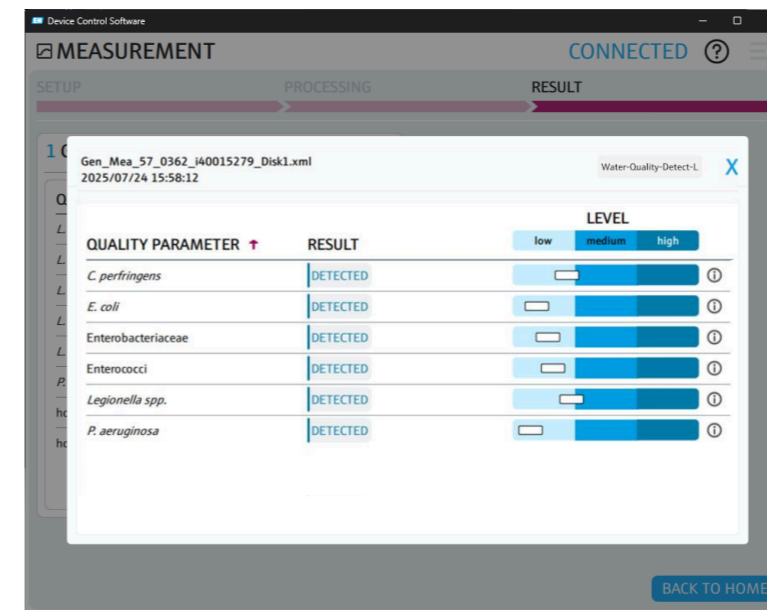
In the lab

To **support microbiology**, microbiological samples can also be analyzed. This allows unclear findings to be confirmed and conclusions to be drawn earlier.

Application examples:

- Enrichment samples
- Colonies from culture plates for specific identification

Clear results



The control software guides users through the analysis process step by step, from the sample to the result.

The software impresses with its intuitive user interface, enabling quick and secure analysis without any prior knowledge neither in laboratory work nor in the underlying technology.

In combination with the Device BAB00, the Control Software not only indicates whether a quality parameter has been detected but also provides its level – ranging from low to medium to high. The data is stored in the software and can be accessed at any time later.

The clear and qualitative result is thus complemented by a semi-quantitative statement to allow conclusions about the microbial load.

Simple workflows with a single Device

Step	Liquid samples	Swab samples	Microbiological samples
Sampling and sample preparation	<ul style="list-style-type: none"> ▪ Direct sampling of water ▪ Simple, patented process through concentration ▪ Manual steps: <5 minutes 	<ul style="list-style-type: none"> ▪ Direct sampling of surfaces ▪ Sampling using swabs ▪ Manual steps: <2 minutes 	<ul style="list-style-type: none"> ▪ Direct sampling of enrichment samples ▪ Direct sampling of culture plates ▪ Sampling using swabs ▪ Manual steps: <5 minutes
Data analysis	<p>After sample preparation, the procedure is identical:</p> <ul style="list-style-type: none"> ▪ Transfer to the Detection Module ▪ Start the analysis ▪ Per analysis 2 samples can be tested 		
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PCR	<p>Closed system:</p> <ul style="list-style-type: none"> ▪ All steps are automated ▪ All reagents are pre-stored ▪ No handling of chemicals ▪ No additional equipment necessary 		
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Preparation	<p>After the analysis:</p> <ul style="list-style-type: none"> ▪ Display of a definitive result ▪ Simple interpretation of the results 		



Germany

Sales

V 1.0

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