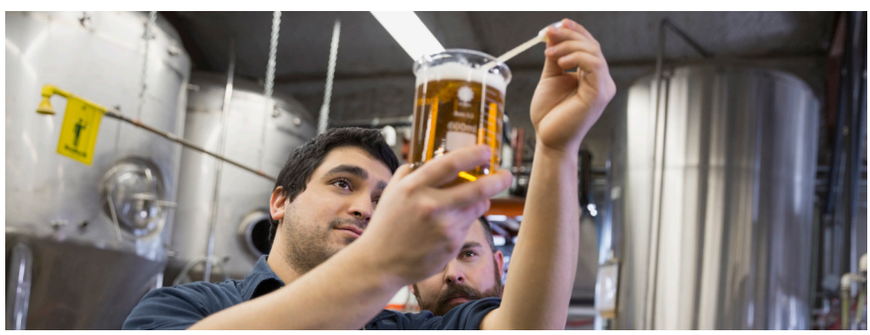
Reliable quality assurance in beer production

Detection of beer spoilage bacteria



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

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

Early detection of beer spoilage is not only a matter of product safety, but also promotes sustainability. Endress+Hauser BioSense has developed a system to support customers in the rapid and early detection of beer spoilage bacteria and hop resistance genes. The system aims to assure product safety, compliance and sustainability.

Quality assurance is of paramount importance in beer production.

Beer spoilage bacteria have the potential to compromise the flavor, aroma, and overall quality of the beer. Implementing stringent quality control measures and monitoring systems ensures early detection and mitigation of such contaminants.

The rapid detection of beer spoilers helps with

- Safeguarding the established flavor
- Maintaining customer trust
- Establishing a more sustainable production
- Minimisation of unusable batches and waste of material
- Using time & resources efficiently
- Optimisation of workflow
- Recognising problem areas in production
- Taking timely countermeasures

Available Products

Spoilage Bacteria Screen
Detects groups & resistance genes:
Lactobacillus, Pediococcus, Pectinatus, Megasphaera, horA & horC

Spoilage Bacteria Ident v2
Identifies the most common bacterium & resistance genes:
L. brevis, horA & horC

Spoilage Bacteria Ident L
Identifies 6 bacteria & resistance genes:
L. brevis, L. backii, L. rossiae, L. acetotolerans, L. lindneri, P. damnosus, horA & horC

Endress+Hauser
People for Process Automation

Conventional PCR and Endress+Hauser BioSense workflow comparison

Step	Conventional PCR workflow	Endress+Hauser BioSense workflow
Sampling and enrichment	▪ Manual or automated sampling at a customer-defined point in time Optional steps dependent on sample matrix and customer need: ▪ Homogenization ▪ Enrichment	
Lysis	▪ Two thermal devices necessary ▪ High risk of mix-up and contamination while handling buffers, enzymes and other reagents ▪ 30 minutes hands-on time ▪ 30 minutes lysis and inactivation	▪ Closed system automating all steps after sampling & enrichment ▪ All reagents are pre-stored ▪ No manual intervention necessary 
DNA/RNA purification	▪ Centrifuge required ▪ Use of potentially hazardous chemicals ▪ High risk of mix-up and contamination while handling different reagents ▪ 60 minutes hands-on time	
PCR and data analysis	▪ Seperate lab rooms necessary ▪ Pipetting error-prone small volumes ▪ 30 minutes hands-on time ▪ 60 minutes PCR duration ▪ Manual data interpretation required	

Germany

Endress+Hauser
BioSense GmbH
Georges-Köhler-Allee 302
79110 Freiburg im Breisgau

ehbs.endress.com

Sales

Consultation
Information
Order

+491605135990
Info.ehbs@endress.com

V 2.0

Endress+Hauser
People for Process Automation