

From Waste to Data

PCR Analysis Workflow Solution

Wastewater-Based Epidemiology



The entire solution from a single source

Your result within 3 hours - simple and automated

Together with Endress+Hauser, Analytik Jena developed a wastewater monitoring workflow for biological parameters. It covers the entire process chain – from sampling to scalable nucleic acid extraction and quantitative real-time PCR.

*“The workflow is easy to manage, especially concerning filtration – and this is crucial **from the perspective of the routine laboratory.**”*

Dr. Christina Meinert-Berning, Ruhrverband, Germany

*“We are confident that we can form the basis for a **wastewater-based monitoring system** with our model project.”*

Dr. Jens Schoth, EGLV, Germany



Sample Collection

- Sample Collection: **Endress+Hauser Liquistation CSF34**
- Fully automated collection of representative samples
- Complies with worldwide water regulations
- Menu-guided sample programming and tool-free maintenance



Easy and Flexible Enrichment by Filtration

- Use the method which is most common (40% of users in Germany) and **as efficient as the reference method** (ultracentrifugation)
- Stay flexible and cost-efficient – **modular and transportable system**, no centrifuge needed
- Filter now and extract later – **using nucleic acid preservation medium**



Efficient Automated Nucleic Acid Extraction


- Desorption of collected nucleic acids using the small-footprint **SpeedMill PLUS**
- **Reproducible results** and elimination of human errors using automated extraction on the **InnuPure C16 touch** or the **CyBio FeliX eXtract**
- **Safe workspace** and reduced risk of contamination due to closed devices
- Extraction process **omitting hazardous chemicals**



Data Acquisition using Gold Standard Analytics

- Quantitative real-time PCR, **reference method** for nucleic acid-based detection accepted by governmental bodies, performed on the **qTOWER³**
- The methodology includes calibration standards and all **process controls** for reliable quantitative analysis (positive, negative, no template, internal)
- A fully operational **software package** for data analysis included



Endress+Hauser 

Liquistation CSF34

Fully automated sample collection (over individual period, e.g. 24 h) by automatic water sampler **Liquistation CSF34**.



InnuPure C16 touch or CyBio FeliX

Reproducible extraction of DNA and/or RNA on the **InnuPure C16 touch** or on the **CyBio FeliX**, depending on the throughput.



SpeedMill PLUS

The filter membrane is homogenized using the **SpeedMill PLUS**.



qTOWER³

Highly sensitive target detection using real-time cycler from the **qTOWER³** family in combination with specific real-time qPCR assay (by third party).



Watch our video
„From waste to data“





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Analytik Jena US

West Coast Offices
2066 W. 11th Street
Upland, CA 92374 · USA

Phone +1-909-946-3197
info@us.analytik-jena.com
www.analytik-jena.com

East Coast Offices
100 Cummings Center, Suite 234-N
Beverly, MA 01915 · USA

Phone +1 781 376 9899
ilnfo@us.analytik-jena.com
www.analytik-jena.com

Endress+Hauser Canada

1244 International Blvd.
Burlington, Ontario
L7L 0K2, Canada

Phone +1-905-681-9292
Fax +1-905-681-9444
info@ca.endress.com
www.ca.endress.com

Analytik Jena Headquarters

Analytik Jena GmbH
Konrad-Zuse-Str. 1
07745 Jena · Germany

Phone +49 3641 77 70
Fax +49 3641 77 9279
info@analytik-jena.com
www.analytik-jena.com

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Version 1.0 - en - 03/2022
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