Press Release
August 8, 2024

Optimized digital Memosens sensors enable continuous disinfection measurement

New generation of Endress+Hauser disinfection sensors help the water management sector and industry overcome challenges and safeguard a clean water supply for the future

August 8, 2024 - Disinfection processes are set to become increasingly important in the future, given current challenges such as climate change, water shortages and population growth.

In contrast to the frequently used DPD measuring method, amperometric sensors can output measured values continuously and instantly. Endress+Hauser disinfection sensors for chlorine dioxide, free chlorine, total chlorine, free bromine and dissolved ozone make use of this amperometric measuring principle.

Real-time measurement technology allows for immediate responses to process changes, optimizing the dosing of disinfectants and reducing costs. A unique feature of these chlorine sensors is their ability to remain active and ready to measure as soon as chlorine is detected, even after extended periods without chlorine, unlike other sensors that struggle to provide accurate readings after such intervals.

Ready for Industry 4.0 with Memosens 2.0 technology

Memosens technology has been revolutionizing liquid analysis for more than 15 years. Digital Memosens sensors can be easily and quickly replaced with pre-calibrated sensors directly in the field via a plug-in connection. They convert the measured value into a robust digital signal and transmit it inductively, irrespective of moisture or other environmental influences.

Enhanced Memosens 2.0 technology unlocks additional measurement information from digital sensors by storing significantly more data than the previous generation. This means the new generation of disinfection sensors offers additional functionality: They enable improved trend identification and form the basis for predictive maintenance and IIoT services. For example, the electrolyte counter and collected data (such as uptime, calibration history and load matrices) allow for application-specific maintenance intervals.

Simplicity means cost efficiency

These functions ensure maximum simplicity during installation, commissioning and maintenance and thus ensure time savings in waterworks, sewage treatment plants, beverage plants and industrial applications. The following ensure even more simplicity, leading to cost savings:

- **Reagents are not required:** No costly reagents are required using the amperometric measuring principle. This also eliminates the need for their disposal and the associated workload.

- **Faster polarization time:** The optimized polarization time means that the disinfection sensors reach a stable display value faster after commissioning. This reduces system downtime and extends production uptime.

- **Low maintenance requirements and predictive maintenance:** In addition to the Memosens 2.0 predictive maintenance capabilities, robust components ensure that the sensors themselves are low maintenance. One example is the convex membrane made of dense and stain-resistant material.

The measured value's journey from the liquid to the system – from a single source

Disinfection applications are versatile. They are found not only in waterworks, sewage treatment plants and swimming pools but also in food production and many other industrial processes relevant to everyday life.

Endress+Hauser has expanded its disinfection portfolio continuously in recent years and, with the newly launched total chlorine sensor, now offers a tailored sensor for every measuring task: Memosens CCS50E for chlorine dioxide, Memosens CCS51E for free chlorine, Memosens CCS53E for total chlorine, Memosens CCS55E for free bromine and Memosens CCS58E for ozone. Combined with the Liquiline transmitter platform and the Flowfit CYA27 modular flow assembly, the global leader in measurement instrumentation offers all the components needed to complete the disinfection measuring point and digitally transfer measured data to the higher-level system.

To learn more, click here.

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About Endress+Hauser
Endress+Hauser is a global leader in measurement and automation technology for process and laboratory applications. The family company, headquartered in Reinach, Switzerland, achieved net sales of more than 3.7 billion euros in 2023 with a total workforce of almost 17,000.

Endress+Hauser devices, solutions and services are at home in many industries. Customers thus use them to gain valuable knowledge from their applications. This enables them to improve their products, work economically and at the same time protect people and the environment.

Endress+Hauser is a reliable partner worldwide. Its own sales companies in more than 50 countries as well as representatives in another 70 countries ensure competent support. Production facilities on four continents manufacture quickly and flexibly to the highest quality standards.

Endress+Hauser was founded in 1953 by Georg H Endress and Ludwig Hauser. Ever since, the company has been pushing ahead with the development and use of innovative technologies, now helping to shape the industry's digital transformation. 8,900 patents and applications protect the Group's intellectual property. For further information, please visit www.endress.com/media-center or www.endress.com.