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ABB launches ultra-accurate water quality analyzer and advanced multi-input transmitter

- The AeroStar™ ULTRA and ULTRA TRACE sensors lower maintenance costs by up to 70 percent in applications where even trace levels of dissolved oxygen can compromise performance or cause corrosion
- The new AWT424 multi-input transmitter allows up to four sensors to be simultaneously monitored and introduces further communication capabilities
- Together, the two innovations set a new standard for precision, reliability, operational efficiency, and digital connectivity in water monitoring

ABB today announced the launch of two major innovations for continuous water analysis (CWA): the AeroStar™ family of dissolved oxygen sensors and the AWT424 transmitter. Together, these innovations set a new standard for precision, reliability, operational efficiency, and digital connectivity in water monitoring. The combined offering delivers a fully integrated, digital solution that helps customers operate more efficiently, sustainably, and safely.

Ultra-precise water quality measurement with AeroStar™

Compared to traditional electrochemical sensors that can require frequent sensor replacement, calibration and maintenance, AeroStar ensures stable, ultra-accurate water quality measurement with minimal maintenance in increasingly complex industrial environments, reducing unplanned downtime and cost.

Engineered for applications in the power, process steam, semiconductor, and food & beverage industries, where even trace levels of dissolved oxygen can compromise performance or cause corrosion, the new AeroStar ULTRA measures down to 4 parts per billion, while AeroStar ULTRA TRACE delivers measurement capability below one part per billion (ppb). The advanced luminescence quenching optical design offers stability and precision, with a fast response time and extended sensor cap life of up to two years – reducing maintenance by as much as 70 percent compared to traditional electrochemical devices.

“The new AeroStar sensors deliver ultra-low dissolved oxygen measurement with unmatched precision and reliability,” said David Martins, Technical Product Manager, Continuous Water Analysis with ABB’s Measurement & Analytics division. “Their robust design and digital connectivity make them the ideal solution for corrosion control in steam water systems and ultra-pure water applications, ensuring users can maintain process confidence while significantly reducing maintenance requirements.”

The AeroStar sensors connect seamlessly via ABB’s EZLink™ digital platform with the new AWT424 transmitter and offer predictive maintenance alerts through the EZLink Connect App. Constructed in stainless steel with a hygienic surface finish, the sensors are also suitable for food and beverage applications.

Simplifying water measurement with AWT424

The next-generation AWT424 transmitter forms the backbone of ABB’s continuous water analysis platform. Designed to simplify and unify water measurement, it allows operators to connect and control up to four sensors simultaneously, offering a complete view of water quality, including parameters like pH/ORP, conductivity, turbidity, chlorine, and dissolved oxygen.

With its modular design, the AWT424 enables operators to easily add and change sensors and communication modules, minimizing spare parts inventory. A full-color TFT display, and Bluetooth™ connectivity make real-time data accessible through ABB’s EZLink Connect App – empowering technicians with remote visibility, configuration, and support. In addition, the AWT424 adds MODBUS TCP communications further simplifying its integration into plant control systems, helping to reduce maintenance, improve uptime, and protect critical assets.

“The AWT424 meets our customers’ needs for simultaneously measuring a wide variety of water parameters in a single device that is easy to configure, use and maintain,” said Martin Binney, Global Product Manager, CWA Transmitters at ABB’s Measurement & Analytics division. “The new solution is integral to offering a holistic view of water quality that is essential for process control in complex industrial operations.”

ABB is a global technology leader in electrification and automation, enabling a more sustainable and resource-efficient future. By connecting its engineering and digitalization expertise, ABB helps industries run at high performance, while becoming more efficient, productive and sustainable so they outperform. At ABB, we call this ‘Engineered to Outrun’. The company has over 140 years of history and around 110,000 employees worldwide. ABB’s shares are listed on the SIX Swiss Exchange (ABBN) and Nasdaq Stockholm (ABB). www.abb.com

ABB’s Process Automation business automates, electrifies and digitalizes industrial operations that address a wide range of essential needs – from supplying energy, water and materials, to producing goods and transporting them to market. With its ~20,000 employees, leading technology and service expertise, ABB Process Automation helps process, hybrid and maritime industries outrun – leaner and cleaner.

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