

Bürkert embeds IO-Link and Bürkert büS into its conductivity and pH sensors for remote diagnostics

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Bürkert is providing more diagnostic data to customers from its Type 8222 conductivity and Type 8202 pH sensors, by embedding IO-Link and Bürkert büS industrial protocols into its ELEMENT Neutrino range. The digitisation of these products allows maintenance and operations to be streamlined thanks to remote monitoring capabilities, supporting process uptime in water quality or chemical applications.

Traditionally, in-line probes in pipework provide signals to controllers, which are then transmitted to PLCs. However, setting up this system requires lots of installation work like wiring the panel - an expensive task. Another option is compact transmitters, which can offer multiple outputs: usually a switched output and a milliamp output to be used for the primary value such as pH or temperature. Some designs will feature an integrated display for ease of use, but this still requires operators to be physically at the device to see alarms, min-max values and other parameters.

Digital diagnostics available remotely

However, the inclusion of IO-Link and Bürkert büS (the latter based on CANopen) into the ELEMENT Neutrino versions of the Type 8222 and Type 8202 provides a more capable solution. First, operators are no longer limited to a couple of outputs, instead gaining access to a wealth of diagnostic data regarding numerous other factors that affect the performance and condition of the sensors.

Furthermore, this can all be accessed remotely. Real-time data can be made available at the PLC, in SCADA systems, on the Cloud or in local storage, depending on the preference of the operator. This allows remote monitoring, unlocking a wide range of possibilities for OEMs, system integrators, contractors and end users.

Benefits for all sensor experts

A key benefit is that remote monitoring capabilities streamline maintenance. Diagnostics can be carried out to discern the condition of equipment and the nature of possible repairs before visiting site, allowing the right spares to be readied before leaving the workshop and avoiding multiple trips. This gives OEMs the opportunity to provide products that actively reduce maintenance requirements and cost.

For end users, having accurate real-time data on the sensors and process enables a more proactive approach to maintaining equipment, which, combined with less maintenance, greatly improves uptime and productivity - all while lowering operating expenditure.

System integrators benefit from the straightforward commissioning and setup of sensor parameters via a laptop, eliminating the time consuming and costly wiring of traditional systems. Additionally, the use of industrial protocols provides more integration opportunities with other equipment in a facility like valves.

Functionality for key fluidic applications

The new IO-Link and Bürkert büS embedded products are complementary for water quality applications. The Type 8202 offers the ability to measure pH as well as the oxidation reduction potential (redox) of a fluid. Meanwhile, the Type 8222 assesses conductivity, detecting the levels of sodium chloride, hypochlorous acid or calcium carbonate (hardness) in water. It is also available for the Type 8228, an inductive conductivity meter that is popular in chemical applications.

Updates are handled via the communicator software used for setup. Download takes place when the laptop is online, so when it is next connected to the device, stored updates are automatically applied. The sensors are not required to be online to operate, giving end users plenty of options for system and security architecture.

Image captions:



Image 1: Bürkert's latest valves are specialised for hydrogen fuel cells.



Image 2: Burkert's Type 6440 safety shut-off valve is ideal for PEM and AFC systems.

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About Bürkert

Bürkert Fluid Control Systems is one of the leading manufacturers of control and measuring systems for fluids and gases. The products have a wide variety of applications and are used by breweries and laboratories as well as in medical engineering and space technology. The company employs over 2,200 people and has a comprehensive network of branches in 35 countries world-wide.

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