

Next generation of pressure instruments provides advanced connectivity

New Cerabar and Deltabar pressure instruments provide simplicity, enable improved process safety, and increased productivity.

May 6, 2021 – Endress+Hauser announces the release of its new Cerabar and Deltabar pressure and differential pressure instruments, with a Bluetooth interface for easier operation and improved efficiency in regulatory control, safety, and other systems. A high level of safety combined with enhanced productivity follows the Endress+Hauser smart safety approach to increase plant availability. Heartbeat Technology creates the data basis for predictive maintenance and allows the instruments' functionality to be verified without process interruption.

Many industries are struggling with attrition, personnel turnover, and training new hires, and major plant additions are often performed by service providers who may not have a thorough knowledge of the equipment and systems on site. The amount of safety-related equipment continues to grow in many industries, and with it the number of costly required proof tests for maintaining safety integrity level (SIL).

Easy operation increases productivity

To comply with these and other requirements, Endress+Hauser's new transmitters offer a more user-friendly user interface in its new Cerabar and Deltabar pressure transmitters. Intuitive operation is now provided via the SmartBlue app, which includes guided operating sequences for parameterization and commissioning of the pressure sensor, bridging distances of up to 50 feet. Thus, even measuring points that are difficult to reach or in hazardous areas are easy to maintain, even if they are only integrated into the process via a 4–20mA interface.

Plant personnel do not have to connect a cable, and real-time data from the pressure transmitter is easily available without the need for permits to open the housing, or for safety equipment to reach the instrument.

The Bluetooth connection has a special protocol that meets the increased safety requirements in industrial applications, and all connectivity is password protected. The Fraunhofer Institute AISEC tested the interface for its level of cybersecurity protection and rated it "high" for protocol and algorithm.

Unlock your IIoT potential

The NAMUR roadmap "Process-Sensors 4.0" names three key criteria for digital process sensors: wireless communication, sensor diagnosis, and the provision of information about the

sensor and the process. With the optionally available Bluetooth and Heartbeat Technology functions, the new Cerabar and Deltabar product lines meet these criteria, providing a solid foundation for implementing an IIoT strategy.

For example, Heartbeat Technology supports maintenance staff when verifying measuring points. This can be done via a Bluetooth connection and at the touch of a button with the SmartBlue app, which can be hosted on a smartphone or the Endress+Hauser SMT70 tablet, which is rated for use in hazardous areas. The verification can be carried out in less than three minutes without process interruption. A verification protocol, which provides detailed information about all tests, is generated automatically.

Continuous self-diagnostic functionality provides a coverage rate of over 95 percent. With this information, it is possible to plan system revisions and maintenance work in advance to reduce downtime significantly and simplify the maintenance processes.

Heartbeat Technology provides users with the tools needed to optimize production through data-based insights into the process by providing transparency about the condition of the instruments and the process, but Heartbeat Technology can do even more.

It also detects irregularities in the process, for example deviations in the loop resistance, which in turn indicate a defective cable. Blocked impulse lines, e.g. due to crystallized medium, are detected by differential pressure transmitters. This type of data provides the basis for predictive maintenance.

Heartbeat Technology's diagnostic, monitoring, and verification functionalities allow users to more efficiently interact with their instruments to improve process productivity. For example, predictive maintenance and better diagnostic information or in-situ health verification result in less unscheduled downtime.

Improve your process safety

Guided operating sequences support plant personnel during the commissioning of measurement points and during SIL proof tests by showing technicians what to do, step by step. This prevents operating errors and systematic errors to improve safety. These tasks can also be completed more quickly because there is no need to consult a manual.

The new color display also provides safety at first glance. In the event of an error, it switches from green to red and thus provides a quick overview.

The new Cerabar and Deltabar instruments feature proven, reliable, and robust sensor technology. New pressure measurement technology includes self-explanatory and efficient operating instructions to prevent systematic errors during instrument parameterization. These features maintain the high safety level of the system and at the same time reduce maintenance costs, during commissioning as well as maintenance.

Benefits at a glance:

Improve your process safety

- Virtual wizards guide users through the SIL lock and proof test to prevent errors
- Safety by Design: Developed according to IEC 61508
- A checksum ensures security parameters are unchanged
- Backlight of the display changes from green to red in case of error

Increase your productivity

- Intuitive operation via Endress+Hauser SmartBlue app and Bluetooth interface
- Guided operating sequences simplify commissioning
- HistoROM data management concept ensures safe and easy transmission of the parameters
- Operation of the instrument by control buttons without opening the cover

Unlock your IIoT potential

- Verification of instruments without process interruption thanks to Heartbeat Technology
- Heartbeat Monitoring detects process irregularities and clogged impulse lines
- Heartbeat Technology provides smart diagnostic functions

These and other advantages make these new instruments the right choice for a wide variety of pressure measurement applications. For more information, please go to:

<https://eh.digital/2POMOSw>

About Endress+Hauser in the U.S.

Endress+Hauser is a global leader in measurement instrumentation, services, and solutions for industrial process engineering. Endress+Hauser provides sensors, instruments, systems and services for level, flow, pressure, and temperature measurement as well as analytics and data acquisition. We work closely with the chemical, petrochemical, food & beverage, oil & gas, water & wastewater, power & energy, life science, primaries & metal, renewable energies, pulp & paper, and shipbuilding industries. Endress+Hauser supports its customers in optimizing their processes in terms of reliability, safety, economic efficiency, and environmental impact. The Group employs nearly 14,000 personnel worldwide and generated [net sales of] more than 2.6 billion euros (2.89 billion U.S. dollars) in 2019.

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The Endress+Hauser Group

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 over 2.6 billion euros in 2019 with a total workforce of 14,000.

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. Own sales companies in 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. 8,000 patents and applications protect the Group's intellectual property.

For further information, please visit www.endress.com/media-center or www.endress.com.