Press Release
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Performance meets hygienic industry requirements

Endress+Hauser's new compact product line for level and pressure measurement

October 2, 2024 - The new compact product line from Endress+Hauser enables higher productivity, ease of use and offers optimal production scalability. The product line is specifically designed for use in the life sciences and food and beverage industries. The product line covers many hygienic applications, consisting of three measuring principles for measuring pressure, continuous levels and point levels. The new products offer optimal solutions for small vessels and a standardized and user-friendly design.

The customers' needs completely drove the development of the new product line. Thanks to the compact sensor design, the small process connections and the outstanding performance, the measuring devices are flexible in scale. The sensors can be used in small vessels and pipes and in bigger process tanks. The products' 360-degree hygienic design and IP69 ingress protection class enable efficient cleaning. The fully welded stainless-steel devices can also remain in place during cleaning and sterilization processes of plants or tanks. This saves time, simplifies cleaning procedures and helps to avoid contamination. Thanks to a touch display, settings can be made intuitively and within minutes directly on the device. As the display is gap-free, there is no risk of contamination.

Multiple technologies to solve a wide range of applications

Whether the pressure of your process pipe needs to be measured when cold, medium-like milk is transferred, the level of base ingredients must be monitored continuously or an overfill protection for process tanks is needed, the compact line offers the right measuring device to solve those tasks.

In pressure measurement technology, the new Cerabar PMP43 impresses with a wide range of sensor variants with fully welded, hygienic process connections, which are used in the food and beverage industry and the life sciences sector.

With the Liquiphant FTL43, point levels in almost all pumpable liquids can be detected using the proven vibronic technology. A significant advantage is the wide range of applications that do not require adaptation to different media.

Endress+Hauser also presents the new Micropilot FMR43 free space radar sensor for continuous, contactless level measurement. Thanks to its exceptional performance, the measuring device ensures reliable measurement even under rapidly changing or turbulent

process conditions. The hygienic industry's requirement for even smaller process tanks was also considered during the development of the new devices.

In addition to the proven 80 GHz technology, a one-half-inch process connection can be realized thanks to a 180 GHz frequency option, which allows use in the smallest process tanks. The variety of the mentioned technologies benefit various applications and help to drive the standardization of measurement solutions at the same time.

Maximized product and process safety

All three technologies maintain required industry certificates, such as EHEDG, 3-A, EG 1935 or ASME BPE, to comply with industry requirements. Material conformity and traceability are given through declarations and certificates (e.g. EC1935/2004, FDA and cGMP). Furthermore, the product line was developed with a tamper-proof design, which means protection against manipulation. Process-critical parameters can be safely locked and configuration integrity maintained using the safety mode wizard. A proven user role concept supports operators by assigning distinct roles and permissions to control who accesses what, enhancing security and accountability. Heartbeat Technology is a powerful tool for ensuring batch-centric operations. Within minutes, it offers a traceable and documented on-demand verification according to ISO9001. Also, every batch meets the highest standards of quality and safety.

Improved plant performance thanks to increased transparency

The new compact product line can increase production process productivity. The Heartbeat Technology functionalities developed by Endress+Hauser, combined with reliable and comprehensive diagnostics, process and device monitoring, can detect process anomalies such as foam formation or build-up at an early stage. This reduces the risk of plant shutdowns. Additionally, qualitative device health verifications are performed in less than three minutes without disassembly or process interruptions.

Using the traceable in-situ verification function of Heartbeat Technology, calibration intervals can be optimized. An example is the Micropilot FMR43 and the Radar Accuracy Index (RAI). The RAI evaluates the reference measurement accuracy during traceable verification according to ISO 9001 to analyze a possible measurement drift compared to the validated state via factory calibration. In this way, plant operators always have transparency regarding the accuracy of the measuring devices.

Easy to operate due to digital assistance

The new measuring instruments of the compact product line simplify measuring tasks in every respect. The entire product line uses an identical user interface across all technologies. This makes installing, commissioning and operating the devices easier and more intuitive than ever. Numerous digital wizards guide users through commissioning and parameterization. This

saves valuable time and helps to prevent human errors. All analyses, controls, maintenance or function checks can be conveniently performed remotely via smartphone or tablet using Bluetooth® Technology and the SmartBlue app from Endress+Hauser. In addition, the devices can also be integrated into engineering systems or software tools for parameterization and control via digital communication with an IO-Link or HART connection, for example.

Your benefits

Outstanding simplicity:

- Easy setup and operation thanks to guided wizards for commissioning, verification and periodic proof tests
- Harmonized user interface across multiple measurement technologies drives standardization and saves valuable time for training
- Intuitive and remote operation via Bluetooth® Technology and the SmartBlue App - no need to access the measuring point physically

Increased productivity:

- High scalability and flexible use in small and big vessels thanks to compact sensor design, small process connections and outstanding performance
- Improved plant performance thanks to increased transparency with the help of Heartbeat Technology
- Easy device integration into asset management systems thanks to digital communication (via HART or IO-Link)

Product and process safety:

- Documented compliance through certified hygienic design (3-A, EHEDG, ASME BPE) and proven material conformity and traceability through declarations and certificates (e.g. EC1935/2004, FDA and cGMP)
- Reliable measurement due to process monitoring and permanent device diagnostics with Heartbeat Technology
- Improved process and product safety through tamper-proof design - a checksum algorithm (CRC) ensures that safety-relevant process parameters remain unchanged

Contact:

Jackie Renforth
Content Team Manager
Endress+Hauser
2350 Endress Place, Greenwood, IN 46143
Jackie.renforth@endress.com
www.us.endress.com

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.