

# Process development through data revolution

Endress+Hauser presents itself at Hannover Messe 2024 as a partner for digital process optimization

**‘Energizing a Sustainable Industry’ – this is the theme of Hannover Messe 2024. In order to make the various branches of industry more sustainable and efficient in the long term, a digital ecosystem infrastructure is needed that generates transparent data streams and serves to optimize processes. Endress+Hauser will be presenting its solutions for digital process optimization in hall 15, booth E52 from 22 to 26 April 2024.**

The process industry makes an indispensable and important contribution to supplying people with the goods they need in their daily lives. Based on professional measuring devices, Endress+Hauser has also been making a significant contribution to the digitalization of production processes with its digital interfaces and services for several years. More and more data is being generated, processed and concentrated into insights for customers.

“Comprehensive use and seamless integration of data streams remain challenges for the process industry. However, these are of crucial importance in order to provide our customers with more transparency about their production so that they can make informed decisions. Such transparency is also essential in order to realize the goal of a climate-neutral industry,” says Dr Rolf Birkhofer, managing director of Endress+Hauser Digital Solutions. “At Hannover Messe, we will be providing an insight into our range of digital solutions for our customers – from planning to operation and optimization. One of our aims is to create sustainable digitalized processes along the entire value chain and thus equip our customers for the future.”

## **From planning to process design: digital twins on the rise**

The standardized digital twin plays a key role in industry. It is the interface for physical devices and components in the digital world and enables the mapping of complete plants in IT systems – for the simulation, control and improvement of processes.

“As a founding member of the Industrial Digital Twin Association (IDTA), we have been working intensively with manufacturers and operators for years to recognize common standards and implement them on the market,” says Michael Riester, senior enterprise architect at Endress+Hauser. “At Hannover Messe, we are presenting our digital twins based on the Asset Administration Shell (AAS) standard, which can be used in any company in the future.” The aim is to reduce manual engineering effort by enhancing existing information in field devices with manufacturer information, such as data for the “as planned” status from computer-aided development tools. Customers thus benefit from data availability in digital, standardized and manufacturer-independent form and avoid incorrect and duplicate data storage.

As part of the Open Industry 4.0 Alliance’s “Follow the Twin Challenge”, Endress+Hauser uses the automatic identification of physical objects in accordance with IEC 61406. This standard defines a globally unique, machine-readable ID that is attached to a physical object, similar to

a type plate or label. This enables customers to easily manage the supplier data required for their processes from development to operation across various independent suppliers.

**From process design to added value: the Netilion digital ecosystem**

The field instruments of an average industrial plant together account for over 240,000 pieces of documentation. Data management takes a lot of time because, until now, instructions, reports, certificates and other documents had to be entered and assigned manually. The Netilion product developed by Endress+Hauser offers digital support for these processes based on the digital twin: all files can be automatically linked to the digital twin of the field device in Netilion Library and collected so that every document is quickly at hand. Netilion Connect offers a connection via a standard interface (API) for use in various other IT systems so that the recorded data can also be used afterwards. The Netilion Analytics web application processes the data and provides an overview of all sub-processes and all components from a wide range of manufacturers recorded in the system. Customers can use this overview to standardize their equipment and improve processes.

**From added value to process optimization: early flood detection**

Endress+Hauser is already using Netilion in another application for early flood warning. This involves collecting data from water level gauges, rain and soil moisture sensors in the region to be monitored and supplementing it with other external data such as weather forecasts and terrain information. "Thanks to the consolidation of the data combined with an AI algorithm developed by our partner, it is possible to make an accurate and early prediction of whether and when flooding is imminent," says Hans-Jürgen Huber, managing director for IIoT at Endress+Hauser. "The ability to integrate a wide variety of data from different sources into Netilion is the key to successfully implementing digital value chains."



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Digital ecosystems in industry.

### **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 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](http://www.endress.com/media-center) or [www.endress.com](http://www.endress.com)

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