

Ready for the Industrial Internet of Things

Digitalization in process automation with Endress+Hauser

The digitalization and interconnection of all operational processes offers enormous potential for cost savings and optimization in the process industry. At Endress+Hauser, our goal is to work together with our customers and technology partners to unlock new opportunities for adding value. Our experts are with you every step of the way, helping to leverage process and instrument data in order to increase plant availability, safety and efficiency.

Smart sensor systems

The product portfolio for the Industrial Internet of Things (IIoT) is based around smart field devices. Featuring a unique database, the W@M asset management system stores data records for 47 million installed field devices. In addition to these static data, thanks to Heartbeat Technology Endress+Hauser field devices are also able to output diagnostic values and device-specific trend parameters, enabling genuine predictive maintenance, for instance.

Endress+Hauser field devices offer the required connectivity to transfer diagnostic data to the cloud alongside the measured values. Thanks to an integrated WLAN/Bluetooth module or WirelessHART, for example, there is no need for modifications to existing controllers or process control systems. In the case of new installations, digital communication is directly via OPC-UA or Industrial Ethernet (e.g. PROFINET or Ethernet/IP). An edge device enables connectivity to the cloud.

Data in the cloud

Endress+Hauser's "Life Cycle Information Hub" cloud compiles and links the static data from the installed assets to the dynamic data, such as Heartbeat Technology diagnostic data, which can be analyzed with appropriate data analytics. It is also possible to connect to the customer's virtual memory (e.g. Microsoft Azure, SAP Leonardo, etc.) via cloud-to-cloud connectivity.

Predictive maintenance

Device-specific trend parameters are available thanks to the new Heartbeat Technology enabling plant owners/operators to implement genuine predictive maintenance. In Promass Coriolis measuring devices, an analysis of these diagnostic parameters can provide concrete information on the degree of device wear in corrosive or abrasive applications, or in fluids producing buildup. Damage to the sensor due to process conditions is thus clearly detected early on and specific maintenance measures can be planned.

The cloud not only enables precise maintenance scheduling: On the basis of data from production planning, delivery times and other processes, users can also ensure the timely delivery and provision of the necessary resources and spare parts – in a fully automated manner. Device information is available for this purpose through the free Endress+Hauser Operations app or the W@M asset management system.

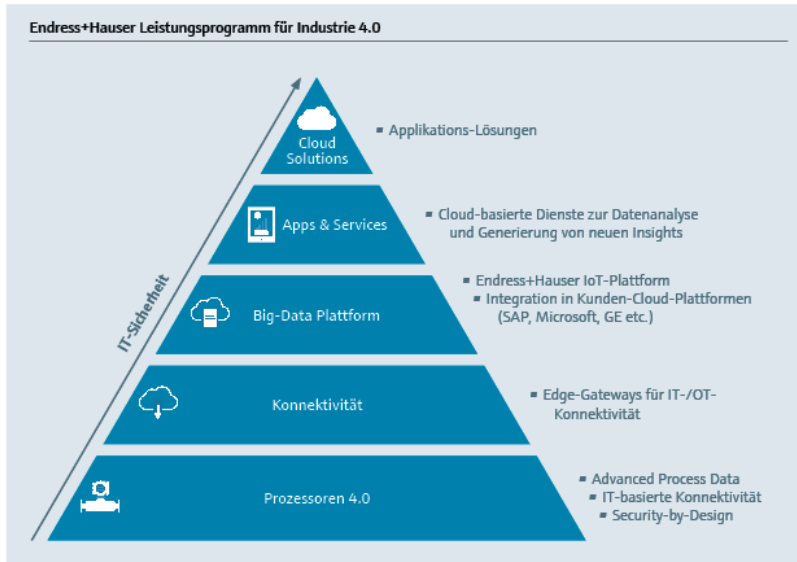
Installed base analytics

Endress+Hauser's "Analytics" is a digital service that allows users to analyze their installed base. The installed base of a system can be simply captured and analyzed using real-time and historic data. Asset information in the field is recorded with a mobile smart device using the new Endress+Hauser Scanner app that reads an RFID chip, QR code or tag – alternatively, the asset information can be captured automatically by an edge device. All the data are saved to the cloud, visualized on a dashboard, and asset management recommendations are issued, e.g. product availability or suggestions for a suitable replacement device.

Outlook

Plant owners/operators will have a reliable and innovative partner in Endress+Hauser into the future also: For example, augmented reality technology offers extensive opportunities for optimization in the areas of commissioning, operation and maintenance. By connecting a HoloLens to the cloud, asset information is directly presented to the user on-site. Commissioning is carried out using animated videos, the measured values and device status are shown directly in the HoloLens and any spare parts that may be required are displayed.

Image



EH_IIoT.jpg

Suitable, smart sensors form the basis of the IoT value chain for the Industrial Internet of Things.

The Endress+Hauser Group

Endress+Hauser is a global leader in measurement instrumentation, services and solutions for industrial process engineering. The Group employs more than 13,000 personnel across the globe, generating net sales of over 2.2 billion euros in 2017.

Structure

With dedicated sales centers and a strong network of partners, Endress+Hauser guarantees competent worldwide support. Our production centers in 12 countries meet customers' needs and requirements quickly and effectively. The Group is managed and coordinated by a holding company in Reinach, Switzerland. As a successful family-owned business, Endress+Hauser is set for continued independence and self-reliance.

Products

Endress+Hauser provides sensors, instruments, systems and services for level, flow, pressure and temperature measurement as well as analytics and data acquisition. The company supports customers with automation engineering, logistics and IT services and solutions. Our products set standards in quality and technology.

Industries

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.

History

Founded in 1953 by Georg H Endress and Ludwig Hauser, Endress+Hauser has been solely owned by the Endress family since 1975. The Group has developed from a specialist in level measurement to a provider of complete solutions for industrial measuring technology and automation, with constant expansion into new territories and markets.

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

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