

# Ethernet-APL is ready to use

Endress+Hauser's load test of a realistic setup confirms the new technology's performance

**Expectations in the process industry for the new physical layer are enormous. Now, Ethernet-APL has shown that it can meet these expectations. The instrumentation manufacturer Endress+Hauser successfully conducted two load tests of a realistic Ethernet-APL setup with components from various manufacturers. The results confirm the new technology's reputation as a game-changer in industrial communication.**

The load tests were designed according to customer specifications to prove that components from different manufacturers can be combined to create a reliable and robust system based on Ethernet-APL. The global chemical company BASF defined the requirements from the customers' point of view. On the hardware suppliers' side, Endress+Hauser stood next to Pepperl+Fuchs, Honeywell and ABB. Their components were confirmed to work together in harmony.

## **Successful load tests prove market readiness of Ethernet-APL**

The first test was set up with nearly 240 Endress+Hauser measuring devices, including flow, pressure, temperature and level sensors. They were integrated into a system with Pepperl+Fuchs' field switches and a Honeywell control system, all using Ethernet-APL and PROFINET. For the second test ABB provided the control system and was tested along with the previous field switches and measuring devices.

The test results were conclusive: Ethernet-APL can be used under realistic circumstances. The test cases were carried out with maximum network layout, and the scalability and fault tolerance were successfully verified. All relevant requirements like total netload or redundancy switch-over times were met or exceeded.

## **Open Integration partner program enabled and supported tests**

The Endress+Hauser Open Integration partner program unites more than a dozen manufacturers that want to ensure the streamlined interaction of their complementary products. The partners test and document the integration of their offerings and how digitalization may be fully utilized within typical process automation applications.

According to Jörg Reinkensmeier, head of the Open Integration partner program at Endress+Hauser, "The load tests proved that Ethernet-APL can be used for real. The components from various manufacturers work together smoothly, and the systems run reliably. We are proud that the close cooperation with our Open Integration partners made it possible to validate this technology. We have reached a milestone of bringing Ethernet to the field level of process automation."

## **Ethernet-APL opens new possibilities for data use**

Ethernet-APL enables the use of Ethernet at the field level of process plants. The 2-wire technology with power and communication over the same wire pair meets the requirements of even harsh process

environments. Fast and digital data transmission with high bandwidth is now possible over long distances and in explosive atmospheres. Easy access to data from field instruments can lift process automation to a new level of efficiency and professionalism.

With the success of the load test, BASF, Endress+Hauser, Pepperl+Fuchs, Honeywell and ABB have taken a significant step towards a technological infrastructure that is open, future-proof and ready for the Industrial Internet of Things (IIoT). This will enable customers to create more flexible, efficient and cost-effective industrial systems and more benefits for the industry.

Endress+Hauser is soon launching a full portfolio of Ethernet-APL measuring devices that transmit data via the PROFINET protocol.

Find out more at <https://eh.digital/launch-ethernet-apl>.



### **Ethernet-APL load test**

238 Endress+Hauser field devices were integrated into an Ethernet-APL system using Pepperl+Fuchs' field switches and Honeywell controls.



### **Easy data access thanks to Ethernet-APL**

Ethernet-APL offers a bandwidth and speed that lift field data transmission to a completely new level. Maintenance and plant managers benefit from new insights.



### **Ethernet-APL-ready flowmeter**

Proline Promass F gives fast process insights. Digital, highly accurate signal processing starts right at the sensor and is the basis for a robust multi-parameter measuring device.



### **Ethernet-APL-ready level sensor**

Micropilot FMR62B using 80-GHz radar technology can send data on build-up or foam index to provide insights on actual process conditions and possible process anomalies.



#### **Ethernet-APL-ready differential pressure measurement**

The Deltabar PMD75B smart transmitter detects process anomalies like plugged impulse lines.



#### **Ethernet-APL-ready temperature measurement**

The iTEMP TMT86 head transmitter fits perfectly in all Endress+Hauser thermometers. Beneficial diagnostic functions like corrosion monitoring of the sensor wires help to improve plant uptime.

## **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 3.3 billion euros in 2022 with a total workforce of nearly 16,000.

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 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. 8,700 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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