

Endress+Hauser's new wireless solutions unlocks full potential of HART instruments

BURLINGTON, ON – Endress+Hauser has launched next generation wireless communications technology for HART field devices, providing the most flexible and cost-effective means yet for users to access full, extended HART process and diagnostic data, even remotely. This easy-to-install technology – the SWA50 FieldPort adapter and SWG50 FieldGate gateway – offers many flexible networking possibilities, both simple and elaborate, for plants constrained by 4-20 mA analog communications to access that HART data. Operators can even link their HART field devices wirelessly to a distributed control system (DCS) or the cloud as a form of cost-effective no fuss, plant digitalization strategy.

Extended data generated by HART devices, including IDM (Intelligent device management) and NAMUR NE 107 diagnostics, aren't typically accessible when those devices are hard-wired to a DCS via a 4-20 mA network. With these analog networks still in widespread use, operators can visualize basic process data, but little else. Nor is extended HART data shown on the visual displays of field instruments so-equipped.

Adding wireless transmission capability to field devices allows that extended HART data, now being wasted, to be visualized without having to replace existing 4-20 mA infrastructure. That HART data can provide early warning of anomalies and help operators pinpoint the location and correctly identify the source – Is it a faulty measurement device or a problem with the process itself? That knowledge can help prevent unscheduled downtime, inform a predictive maintenance strategy, or at a minimum, optimize staff productivity.

The extremely compact SWA50 converts the signal of Endress+Hauser and third-party 2- and 4-wire HART field sensors into a reliable, encrypted Bluetooth or WirelessHART signal. The loop-powered SWA50, which joins the battery-powered SWA70 in the Endress+Hauser portfolio, is an easy retrofit that can be installed right on a HART device or nearby on any 2- or 4-wire 4-20mA cable linking that sensor to a DCS. Its WirelessHART signal has a range of 200m and Bluetooth range of 40m; it's available as a Bluetooth-only or dual-signal transmitter.

An operator with an analog infrastructure can combine up to 100 SWA50 transmitters with an SWG50 gateway to create a wireless digital network – a second independent communications channel.

In the simplest use case, installing an SWA50 on a non-networked device allows personnel to visualize extended HART as well as basic process data on Endress+Hauser's Field Xpert tablet or SmartBlue app on a smartphone. They don't have to get up close to instruments in hard-to-reach or far-flung locations or harsh or hazardous environments to see HART values like the instrument's NAMUR NE 107 status.

For users who want to leverage HART data for even greater benefit, there are extended networking possibilities combining SWA50 transmitters with a SWG50 (or legacy SWG70) gateway to route signals from field devices to high-level systems, like a DCS or Netilion, Endress+Hauser's cloud solution.

The SWG50 can be hard-wired to a DCS, or to an edge device like Endress+Hauser's FieldEdge SGC500 to send all data to Netilion. From those high-level systems, every wirelessly-enabled field device in a facility can be monitored centrally. It's also possible to link Netilion to the facility's own cloud solution.

Netilion's available analytical and diagnostic tools include Netilion Health, a straightforward way to monitor the performance of all Endress+Hauser and third-party field devices. Gaining such real-time visibility to

device diagnostics can inform a predictive maintenance strategy that maximizes operational uptime and supports just-in-time parts sourcing for additional savings.

With wireless connectivity, additional sensors can be installed in the field without having to reconfigure an analog network. Users also can configure and commission SWA50-equipped HART field devices using the same wireless advantage. That can be done on site, by a technician using a Field Xpert tablet, or remotely using FieldCare software, transmitting to the device via WirelessHART.

About Endress+Hauser

Endress+Hauser is a global leader in measurement instrumentation, services and solutions for industrial process engineering. Our products – sensors, instruments, systems and services for level, flow, pressure and temperature measurement as well as analytics and data acquisition – set standards in quality and technology. The company further supports its customers with automation engineering, logistics and IT services and solutions. Founded in 1953 by Georg H Endress and Ludwig Hauser, the Endress+Hauser Group has been solely owned by the Endress family since 1975. Today, the Group is managed and coordinated by a holding company based in Reinach, Switzerland, employing over 15,800 personnel across the globe. In 2022, the Group generated net sales of C\$5 billion. Endress+Hauser's production centres in 12 countries meet customers' needs and requirements quickly and effectively, while its dedicated sales centres and strong partner network guarantee competent worldwide support.

Press Photo (see separate JPEG file attached)

Caption:

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