

Natural gas analyzer combines high accuracy with ease-of-use and field serviceability

Proven measurement technology for monitoring water content in natural gas benefits from improved user interface, data handling and network connectivity, along with enhanced modularity for optimal field serviceability.

April 6, 2021– SpectraSensors, an Endress+Hauser company, announces the release of its J22 TDLAS Gas Analyzer. This new product addresses multiple issues with traditional technologies used for the measurement of water in natural gas, while providing additional benefits.

Today's natural gas market is more complex than ever, with an unprecedented range of supply sources and overall gas composition variability. Gas suppliers, pipeline operators, and industrial users must accommodate unexpected changes in heat value and contaminant levels by using analyzers to verify characteristics throughout the supply chain. One very critical contaminant must be monitored continuously: H₂O. The presence of water content in liquid or gas can cause corrosion in a pipeline or other assets. Moisture alongside other acids can combine to cause severe asset degradation.

The J22 moisture analyzer combines Endress+Hauser's and SpectraSensor's more than two decades of experience producing tunable diode laser analyzers with the latest advancements in data analysis, internal diagnostics, multi-functional enclosures, and web server connectivity. The combination of these features creates a comprehensive moisture monitoring solution with unique capabilities.

The analyzer can replace traditional electrochemical sensors, such as aluminum oxide, phosphorus pentoxide, quartz crystal microbalance, and chilled mirror. These technologies often lose accuracy due to contamination issues, require frequent maintenance, and can't reliably distinguish between water and other liquids frequently found in gas streams, such as glycol and methanol.

TLDAS technology can identify the water molecules specifically, while being unaffected by a wide variety of other common contaminants. However, some traditional TDLAS analyzers are

difficult to maintain and not suited to installation in the harsh environments that are often encountered with these types of measurement applications.

To address these and other issues, the J22 TDLAS Gas Analyzer is designed for almost zero maintenance. When service is required, its components are easily accessible and field-serviceable, allowing for quick replacements and upgrades. The gas sample cell is simple to remove and designed for convenient cleaning and servicing. The available IP66 and Type 4X enclosures for housing the analyzer are suitable for installation in typical natural gas application locations.

Field operability is made all the easier thanks to Endress+Hauser's Heartbeat Technology™, with diagnostic capabilities built into the J22 TDLAS Gas Analyzer. Alerts and verification reports advise operators on how the unit is performing and will inform the operator if the health of the analyzer is degrading. When severe enough, the system triggers alarms to call for maintenance attention. Operators can quickly interpret alerts, thanks to NAMUR 107 compliant alarm categories and diagnostic graphics.

The analyzer has a built-in web server, with connectivity provided to a laptop or other device via an Ethernet cable. This functionality allows operators to find further detail through information screens and verification reports, the latter provided in PDF format.

These features and options, combined with the J22 TDLAS Gas Analyzer's reliable measurement technology, provide an ideal solution for measuring water content in natural gas streams. For more information, please go to <https://eh.digital/3u9N4dh>.

About Endress+Hauser USA

Endress+Hauser is a global leader in measurement instrumentation, services, and solutions for industrial process engineering. Endress+Hauser provides sensors, instruments, systems and services for level, flow, pressure, and temperature measurement as well as analytics and data acquisition. 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. The Group employs nearly 14,000 personnel worldwide and generated [net sales of] more than 2.6 billion euros (2.89 billion U.S. dollars) in 2019.

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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 over 2.6 billion euros in 2019 with a total workforce of 14,000.

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. 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. 8,000 patents and applications protect the Group's intellectual property.

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