

First 79 GHz High-Accuracy Radar Instrument for Level Measurement in Liquids

Endress+Hauser presents the world's first radar with a transmission frequency of 79 GHz for level measurement in liquids. The new Micropilot NMR81 for high-accuracy custody transfer applications is certified by independent test authorities to an accuracy of ± 0.5 mm. The sharply focused microwave beam angle ensures safe and reliable measurements without any interfering signals even in narrow tanks with baffles.

Being the technology leader in process instrumentation, Endress+Hauser regularly sets standards in level measurement instrumentation. The new 79 GHz radar is the newest innovation, providing a solution for even the most sophisticated level measurement applications in liquids. Micropilot NMR81 utilizes 79 GHz technology to generate a narrow beam angle of 3° or 4° . Measurements are substantially more reliable even in narrow tanks because the radar beam avoids obstacles such as baffles on the tank walls, and is thus unhindered by interfering signals.

Furthermore, taking measurements right at the bottom of very tall tanks is easier because the beam does not hit the tank walls prematurely. Installation relatively close to the tank wall is possible with the narrow beam angle. The technology permits very long measuring ranges of up to 70 meters. In custody transfer, the instrument measures up to 30 meters with an accuracy of ± 0.5 mm.

Custody transfer applications require the highest measurement performance. The American Petroleum Institute (API) and International Organization of Legal Metrology (OIML) recommend an accuracy of 1mm (1/16") for a level instrument under factory calibration conditions, and within 4mm (3/16") for the entire measurement system after installation in the tank. Micropilot NMR81 easily fulfills all API and OIML requirements. Additionally, the antenna is equipped with a gas-tight feed-through. This 'second line of defence' is particularly important for handling highly toxic or diffusive products.

The Endress+Hauser Group

Endress+Hauser is a global leader in measurement instrumentation, services and solutions for industrial process engineering. The Group employs 13,000 personnel across the globe, generating net sales of more than 2.1 billion euros in 2015.

Structure

With dedicated sales centers and a strong network of partners, Endress+Hauser guarantees competent worldwide support. Our production centers in 11 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.press.endress.com or www.uk.endress.com

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