



Compact radar sensors deliver reliable level values independently of process and environmental influences

Due to their physical measuring principle, ultrasonic sensors can be exposed to considerable influences because the running time of sound changes with, for example, temperature, solar radiation and gas composition. Even

- heavy fog,
- wind
- or rain

can additionally damp the sound waves and limit the measuring range even more. Radar sensors, on the other hand, are not affected by temperature fluctuations, high pressures or vacuum and deliver correct readings under all environmental conditions.

For this reason, VEGA has now extended the proven **VEGAPULS** with a new instrument series for continuous level measurement. The **new radar instrument series** is based on 80 GHz technology and, thanks to a newly developed microchip, represents a real alternative to ultrasonic technology in terms of price. This makes it suitable even for more price-sensitive applications, such as those found in the water and wastewater industry or in auxiliary systems in process automation.

Optimized for applications in the water and wastewater industry

Especially in applications in the water and wastewater industry, [level measurement](#) is often exposed to the elements of nature. One example is the [measurement of the flow](#) in drainage channels leading to the sewage treatment plant. The high accuracy of the new radar sensors, unaffected by environmental influences, enables exact measured values and thus a reliable calculation of levies.

The new compact radar sensor can also be used for reliable [monitoring of river levels](#). Its measured values are an important prerequisite for being able to react quickly and correctly during a flood event. Radar sensors monitor the river level unaffected by temperature fluctuations, such as those caused by strong solar radiation. Even at a distance of up to 30 metres from the water surface, the sensor delivers readings accurate to the millimetre.

The new instrument series is available in two versions: a compact version with cable connection compartment and a version with fixed cable connection (IP68).

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The heart of the new instrument series – a new microchip

VEGA is once again breaking new ground by adding a new compact instrument series to its portfolio of radar sensors. This one is particularly suitable for more price-sensitive applications, such as those found in the [water and wastewater industry](#) or in auxiliary systems in process automation. VEGA developed a new radar microchip especially for this purpose: it is characterized by its very small size and low energy consumption. This is the prerequisite for being able to offer a very compact radar sensor. These microchips enable lower product costs, which allows the sensors to match ultrasonic measurement technology in terms of price.

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