



Radar sensors with strong focusing ensure more precise values in continuous level measurement

VEGA has extended the proven VEGAPULS series with a new instrument series for continuous [level measurement](#). The [new radar instrument series](#) is based on 80 GHz technology and, in terms of price, presents a real alternative to ultrasonic technology.

At the same time, the compact new VEGAPULS series is more reliable and accurate due to its non-sensitivity to environmental influences.

Good focusing ensures reliability and high accuracy

The great strength of VEGAPULS is its unique focusing ability. This allows the radar beam to be directed to the measured medium with nearly pinpoint accuracy. As a result, no interfering signals are generated by installations such as pipes, pumps, buildup on walls or the confines of narrow shafts. In contrast to ultrasonic sensors, no false signal suppression is necessary.

How does the transmission frequency affect focusing?

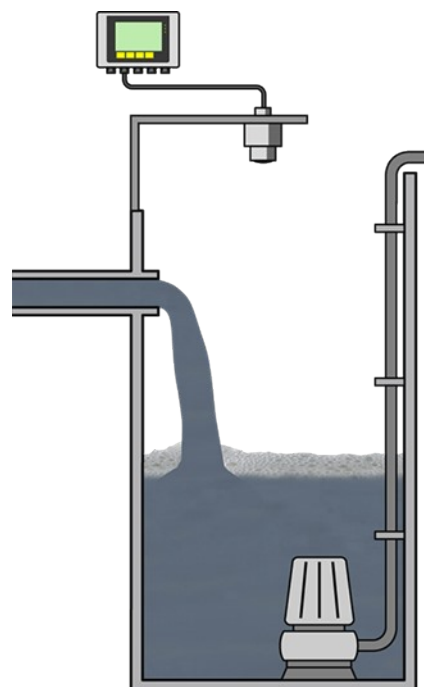
VEGAPULS operates with a transmission frequency of 80 GHz. With an 80 mm antenna, this yields a beam angle of only 3°. The radar sensor only receives clear, distinct reflections from the measured medium. This makes the measurement even more accurate and reliable.

By comparison: A conventional ultrasonic sensor, or radar with 26 GHz transmission frequency, with this antenna size has a beam angle of about 10°. Because of this wider signal beam, the pumps, pipes, internal fixtures or buildup on the walls can cause interference that can affect the measurement reliability. Therefore, a false signal suppression is often needed

80 GHz radar, in contrast to these sensors, requires no false signal suppression. The new VEGAPULS instrument series is also not bothered by condensation or contamination.

Your benefit:

- Much simpler setup and commissioning, even with complex vessel geometry.
- Better focusing increases measurement reliability over the entire measuring range.
- High accuracy, and reliable detection of true level, even when mounted close to the vessel wall



The very good signal focusing of VEGAPULS enables reliable detection of the product surface even in vessels with many internal installations.

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

cable connection (IP68). The sensors can be conveniently adjusted via a Bluetooth capable smartphone or tablet – ideal for harsh environments or Ex hazardous areas.

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