

Reliable measurement all the way down to the tank bottom

With older generation radars, in the case of poorly reflective liquids with very low dielectric constants, such as solvents or hydrocarbon products, part of the radar signal passes through the medium and is reflected from the metal highly reflective tank bottom. As the tank fills, the distance between the liquid level and the tank bottom increases, the two signals from the product surface and the tank bottom can be definitely separated and a reliable level measurement ensured.

However, at low liquid levels, the close proximity of the reflection signals means they can no longer be clearly distinguished – the result is an incorrect measurement, premature zero or a minimum measured distance the tank bottom.

The solution

Radar signals at higher frequency ranges experience a significantly higher signal attenuation when propagation occurs through low dielectric products. This means the 80-GHz frequency range of VEGAPULS 64 is a considerable advantage here, since the signal reflected from the tank bottom is considerably smaller than that generated by previous 26 GHz sensors. The product surface of different media can therefore be detected with higher accuracy right down close to the tank bottom

The benefits

- Reliable level measurement of all media all the way down to the tank bottom
- Utilization of the entire container volume, especially in small vessels
- Easy adjustment with no minimum distance from the tank bottom



Oil on the tank floor. At low levels, it is very difficult to measure oils or other liquids accurately.

Related applications

■ Reactor

VEGAPULS 64