



## Level Measurement

### Press release

#### **OPTIWAVE und OPTIFLEX, high-tech Level Radar**

The new 2-wire level gauges from KROHNE include significant improvements to application reliability and operating philosophy - the weak points that had forever been criticized by users of radar level measuring devices.

User wishes are clear: install and power the device, answer a few relevant questions, and the device works perfectly. OPTIWAVE, the new generation of 2-wire radar devices, is based on the frequency-modulated continuous-wave (FMCW) method, with the transmit frequency varying in the range of 24-26 GHz.

Comparison measurements carried out with non-contacting pulse radar devices available on the market show that the OPTIWAVE's signal-to-noise ratio is up to a 1000 times better. This improvement, as incredible as it sounds, allows even weakest measuring signals to be identified and reliably tracked, also in extremely noisy environments. Together with appropriate signal evaluation a significantly higher application reliability is obtained, particularly for difficult cases such as horizontal cylindrical vessels, agitator tanks, layers of foam in the tank, or media condensation on the antenna. A number of difficult applications, in which pulse radar devices have been replaced by OPTIWAVE, provide convincing evidence of its enhanced application reliability.

OPTIFLEX, the contacting Reflex-Radar device from KROHNE, has also been completely redesigned. In this so-called TDR (Time Domain Reflexion) process, pulse width and rate of rise of the radar pulse play an important role. The time base has been stabilized so that time variations are now less than 1 picosecond. Compared with previous models, which already performed very well, performance of the OPTIFLEX has been improved by some 300%. Improvements have not only increased application reliability, they have also widened the range of measurable products and allow measurement of the thinnest interfaces.

Common to both devices is the completely new operating philosophy. The quick-setup assistant guides the user through the necessary inputs, provides a wealth of information in the form of graphics and texts, and has additional online help if needed to dispel last doubts.