

Measurement of lime levels in drinking water & wastewater

As lime is a product derived from the Earth, it is fitting that many of its uses also benefit the Earth. In fact, the second leading use of lime is in environmental applications, including drinking water and wastewater.

OPTIFLEX is widely used to indicate lime levels in storage silos. It usually replaces non-reliable ultrasonic or electromechanical systems that are expensive to maintain. Lime powder is used to treat industrial and mining wastewater by adjusting the pH of acidic waste, removing phosphorus and nitrogen, and promoting clarification. Operating under the so-called TDR (Time Domain Reflectometry) measuring principle, the instrument is immune to dust and harsh environments.



OPTIFLEX for lime level measurement in a silo

OPTIFLEX is the third generation of TDR level meters from KROHNE, available in compact or remote design, high-performance and field-proven. Up to 5 sensor options are available for various applications and requirements: level measurement of liquids or solids. The OPTIFLEX true four-button keypad offers quick and easy access to all instrument functions. Once the user has performed a quick, simple and intuitive setup operation, the instrument will directly display the actual silo level, which increases user confidence. The local display is extremely easy to read, allowing users to view level, distance and volume indications in various units. In addition to the displayed variables, an oscilloscope view is also available, ensuring complete application diagnostics.

For remote diagnostics and parameterization, the instrument comes with the famous PACTware software and DTM (Device Type Manager) instruments free of charge. All parameters and analysis data are then accessible using the HART protocol signal through a 2-wire current loop. For use in specific locations such as hazardous areas, OPTIFLEX can be certified as intrinsically safe or explosion proof according to ATEX, FM, CSA, IEC, NEPSI etc.

In terms of applications, OPTIFLEX measures lime levels in silos directly at supplier quarries as well as in the drinking water of final users at water treatment stations. OPTIFLEX gives users reliable level measurement for automatic silo reloading and local inventory. Lime is especially vital to municipalities, which need to fulfil environmental and public health responsibilities at a reasonable cost. Firstly, lime is widely used for potable water softening and to remove impurities (such as lead) from drinking water. Secondly, it is a highly cost-effective method of treating sewage sludge.

As world pollution control regulations become increasingly stringent, these applications of lime level measurement are sure to become even more important in our efforts to maintain a clean environment. KROHNE OPTIFLEX 1300 C - the ultimate level transmitter for the Water & Wastewater industry.

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