High Precision Potentiometric Continuous Level Sensors

Gems® Sensors & Controls™ (Gems), a global leader in liquid level, pressure, and flow sensors, miniature solenoid valves, and fluidic systems announced the launch of the new CT-1000 potentiometric level sensors for OEM and end user applications. The CT-1000 sensors provide highly accurate continuous level gauging for the filling of tanks or continuous separating layer coverage in nearly all electrically conductive liquids with resolution of ±1mm independent of pressure, temperature and density.
One of the biggest assets of the sensor is the extremely short measuring times in the millisecond range. The sensor is suitable for a wide-range of tanks with lengths from 8? to 19.7? (6 meters) and is available with 4-20mA output or with Hart protocol. Built from robust stainless steel material, the CT-1000 Series offers versions that can handle temperature ranges up to 390°F (200°C) and pressure ranges up to 2,175 PSI (150 bar).

CT-1000 fluid sensors operate according to the potentiometric measuring principle. By means of the micro-controlled sensor electronics, the current impulses are transmitted through a sensor electrode that is electrically insulated from the tank or external tube. This leads to a linear voltage drop on its electrical resistance. If the sensor electrode is dipped into a conductive liquid (?1 µS/cm) an electrical connection to the environment is created.

“The CT-1000 increases the breadth of the Gems continuous level product line with a highly accurate potentiometric level sensor for electrically conductive liquids,” says Kevin Castonguay, Product Marketing Manager for Gems Sensors and Controls. “The CT-100 is a robust, durable and maintenance-free solution because the sensor does not contain any moving parts. The high resolution sensor is suited for a wide

variety of OEM and end user applications such as; water and wastewater treatment, chemical and petrochemical processing, semiconductor, boiler, marine as well as applications with liquids that are sticky, with foam or with contaminated liquids."

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