



Ultrasonic Sensors— Continuous and Point Liquid Level Sensors

- Accurate and reliable sensing method
- Ideal technology for difficult fluids
- Sized and priced for most applications
- Easy to install—simple to use

Gems delivers the answer for challenging fluid measurement and monitoring with our new ultrasonic UCL Series Continuous Non-Contact Level Transmitters and ULS Series Point Level Switches. These accurate and reliable sensors are designed for the most difficult fluids to monitor—including ultrapure, dirty, coating, scaling or corrosive types.

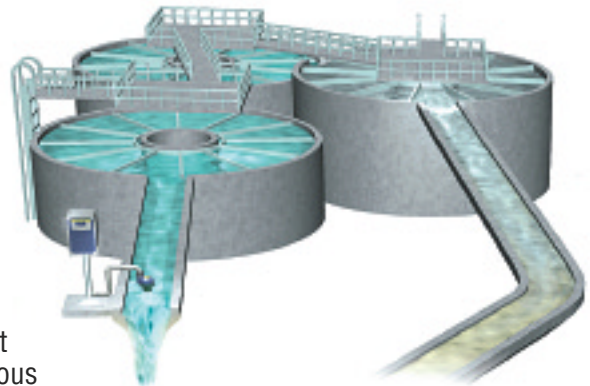
Typical Media

- Acids ■ Wastewater ■ Inks and Paints ■ Slurries ■ Food and Beverage
- Semiconductor Process Chemicals ■ Oils and Petroleum Distillates

How Ultrasonic Monitoring Works

UCL Series Continuous Non-Contact Transmitters: Mounted at the top of a tank, the sensor continuously transmits pulses of high-frequency sound waves that travel away from the sensor, hit the surface of the liquid and return to the sensor. Solid-state electronics measure the time it takes from transmitted sound to return of the echo. With reference to the speed of sound in air, the exact distance of the liquid surface from the sensor can be calculated with high accuracy ($\pm 0.25\%$ of maximum range). Level/Distance measurements are automatically temperature-compensated throughout the operating temperature range of the sensor.

ULS Series Switches: Mounted through the top or side wall of a tank, Gems **ULS-50 Series** single-point switches utilize a gap-tipped probe. Pulses of ultrasonic sound waves are continuously passed across the gap of the probe. The solid-state sensing electronics are tuned to ignore the greatly attenuated signals transmitted through air and actuate only on the stronger “valid” signals received when the probe is submerged in a liquid. **ULS-60 Series** multi-point switches are designed for easy automatic tank “Hi/Lo” liquid level control. They combine non-contact continuous sensing with two SPDT relays; actuation points are field adjustable in a range of 6 inches to 12 feet.



Gems Messenger™ Remote Monitoring

Gems Messenger™ products and services are the most advanced and robust method to monitor tank contents, regardless of location. Wireless telecommunication technologies bring sensor data directly to your desktop using our MessengerWare™ data acquisition software, or to any desktop in the world connected to the Internet via MessengerNet™. With MessengerNet™ your remote data is displayed in custom-designed screens, hosted on our reliable and redundant web servers. Gems Messenger™ continuously delivers the data you need for comprehensive inventory analysis, archiving and auditing. Messenger™ remote monitoring and communications products are your key to inventory and supply management. For more information, please visit our web site at www.gemsremotemonitoring.com.

