

Application

Liquid Level Measurement with Ultrasonic Proximity Sensors

Industry

- Lab Automation
- Medical
- Food & Beverage
- Semiconductor

Application Overview

Generally either an analog output or discrete points (high, low) are required for liquid level measurement or detection. In certain applications the liquid containers are very small and not much room is available for a sensor. In some applications the liquid must be as pure as possible, thus a non-contact measurement solution is required.

Application Challenges

Liquid level is often measured or detected using float or capacitance / conductive technology. Floats can take up significant volume, have moving parts (which can create contaminants and wear out) and require a minimum specific gravity. Capacitance or conductive type sensors require a minimum liquid dielectric and may also need to be in contact with the liquid to function.

Solution(s)

The ultrasonic UNAM sensor family provides a non-contact means of liquid level detection. With a narrow sonic cone profile, the sensors can measure liquid level in small containers regardless of specific gravity, dielectric, viscosity or color. The sensor is self-contained, easily installed and Teach-in allows for simple set-up.

Examples include the following:

- UNAM 12P1914/S14D
- UNAM 12U9914/S14D

Supporting Documentation

- Baumer Sensor Solutions Catalog, pages 587 and 610.
- Baumer Website: [UNAM 12P1914/S14D](#) and [UNAM 12U9914/S14D](#)



Cylindrical 12 millimeter ultrasonic sensor with beam columnator accurately senses liquid level in well-plate.

For application information, contact:

Baumer Ltd.
122 Spring Street, Unit C-6
Southington, CT 06489

Phone: (860) 621-2121
Fax: (860) 628-6280
E-mail: sales.us@baumergroup.com

www.baumergroup.com

Customer Service/Technical Support: (800) 937-9336