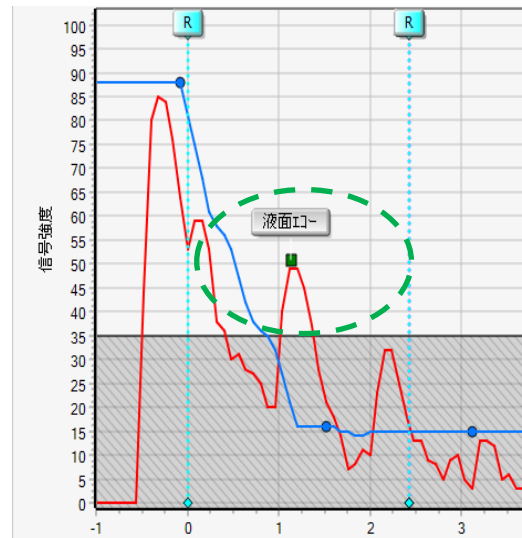


# Radar Level Gauge Application Report 43

## - Bubble Surface Measurement -



The KRG-10 radar level gauge features accurate, non-contact, level measurement with simple installation over a target fluid. In applications such as agitating of liquid process tanks where the sensing elements of contact type level instruments are exposed to stuck and substance adhesion, non-contact means of measurement which are unencumbered by such concerns are preferable for durability and reliability of measurement.

At this particular site, the KRG-10 radar gauge provides stable measurement of bubble surface level, unaffected by atmospherics. If it is a small bubble of aqueous solution system, it may be possible to obtain sufficient sensitivity like this case (normally microwaves are scattered and measurement is difficult)

Other popular measurement methods include ultrasonic level gauges are also frequently employed as a non-contact means of level measurement. This type of gauge measures the round-trip transiting time of high frequency sounds to and from the surface of a fluid and converts this into distance. Ultrasonic level gauges however are easily affected by dust, fog, vapor, pressure, temperature changes, and other environmental factors.

Radar level gauges, which incorporate electromagnetic waves (microwaves) on the other hand, do not require direct contact with Fluid, density parameters or complex capacitance comparisons. Microwave-based level gauges are also least affected by ambient conditions.

In addition, the KRG-10 radar level gauge offers HART 2-wire loop communication protocol so customers can change any parameter from a central computer station with PC and configuration software. The KRG-10's 4-key input menu display also allows parameter setting on site as an alternate method.

	KRG-10	Pressure	Capacitance	Ultrasonic
Non- Contact	○	×	×	○
Vapor / Dust (High Temp & High Humidity)	○ Least affected	○ Not affected	×	×
Temp. Change	○ Least affected	○ Not affected	○ Not affected	×
Sediment	○ Not affected	×	○	○
Durability	○ Isolated from tank ATM.	×	×	×

[ Application Data ]

Typical User : Chemical Company  
 Target : Emulsifier  
 Location : Asia

[ Installation Data ]

Main Unit : Radar Level Gauge KRG-10  
 Antenna : 4inch PTFE Sealing antenna  
 Range : 2.5m

For more detailed information, please contact your local representative.

Representative in your Area