

The logo for OHMART VEGA, with 'OHMART' in blue and 'VEGA' in blue, separated by a yellow horizontal bar.

OHMART VEGA



## ■ VEGASON

### ULTRASONIC LEVEL SENSORS

The VEGASON 60 Series of ultrasonic gauges offers a loop-powered solution for the continuous level measurement of liquids and solids. Using ultrasonic pulse technology, level in a vessel is determined by measuring the air space between the product and the sensor. The PVDF transducer has an integral temperature sensor used to compensate for the change in the speed of sound at different temperatures.

#### ■ Features & Benefits

- Top Mounting eliminates possible leak paths from forming below the liquid level surface
- Programmable methods include PLICSCOM, PACTware with VEGA DTM collection
- Non-contact with no moving parts diminishes maintenance requirements associated with contact measurement technology

## ■ Principle of Operation

### PULSE

The sensor transmits energy in the form of ultrasonic pulses. These pulses are directed toward a specific target that reflects the energy back to the transducer.

### TARGET

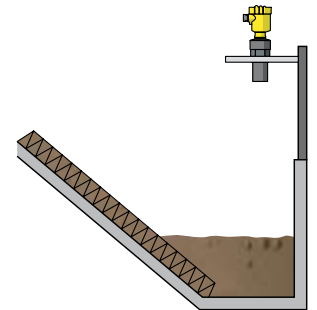
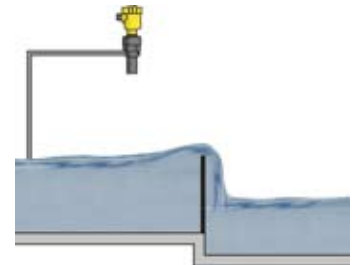
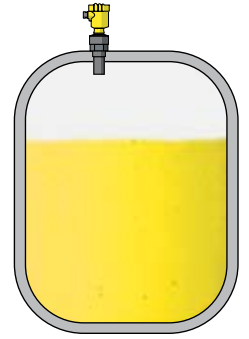
The amount of energy that returns to the sensor depends on the properties of the target material. For liquids, this could be bulk density and/or the particle size of the material being measured.

### RETURN TO THE ANTENNA

The transit time of the ultrasonic pulse that returns to the transducer is measured and used to calculate the distance to the target.

### TIME OF FLIGHT

Ultrasonic pulses from the sensor travel at the speed of sound. Emitted from high-performance piezoelectric crystals within the transducer, the speed of these pulses is a constant. The relationship of the time it takes for the pulse to travel to the product and back, versus the distance to the product is linear and proportional. This allows for distance measurement provided there is no change in the density of airspace.



## ■ Applications

The VEGASON series can be used in virtually any industry. Applications include:

- Cooling Tank for Process Water
- Bulk Solids Day Bins
- Lube Oils
- Drilling Mud
- Open Channel Flow

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