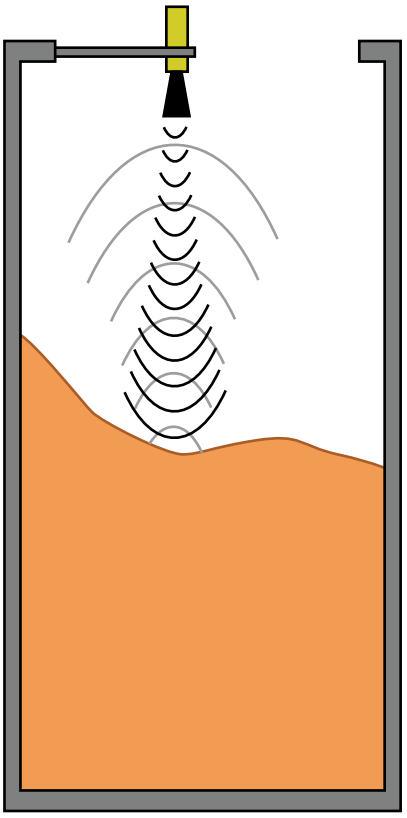
Radar / Microwave Level

Top-Mounted Radar or Microwave Sensors for Liquid and Solid Level

Principle



Radar is one of the ultimate methods of non-contact level or distance measurement, as unlike ultrasonic measurement, it's not confused by dust, foam or most forms of surface disruption.

Radar level sensing is also extremely long range, able to deal with distances of more than 60 meters if required.

Complex Time-Of-Flight calculations are performed on each radio pulse, allowing radar units to provide extremely accurate and fast results when measuring tank level.

Advantages

- Non-contact
- Suitable for solid and liquid applications
- Takes a sample over a relatively wide area rather than a single point
- None of the weaknesses of ultrasonic measurement apply
- Long Range

Disadvantages

- Relatively expensive when compared to ultrasonic measurement
- A large 'Dead Zone' directly in front of the sensor that can not be measured

Considerations

Like ultrasonic sensors, radars can be confused very narrow channels, extrusions into the tank or unusually shaped vessels. This is because they create extra echoes that can reflect and bounce around the tank.

The more advanced models have 'false echo supression', which is a feature which allows you to filter out these false echoes and concentrate only on the valid echo from the surface of your target.

The **Vegapuls** series of radar level transmitter from **Vega**.

Different frequencies are more effective on certain types of media, so various models are available to operate in different applications.