

# Rosemount 5601 Radar Level Transmitter



## High Sensitivity Radar Level Transmitter

Our Model 5601 Radar Level Transmitter is a state-of-the-art, top-of-the-line radar transmitter for the process industry. Built to make level measurements as simple and reliable as possible, in a wide range of applications.

### Features include:

- Extremely high sensitivity that enables the transmitter to measure levels in a wide range of process conditions
- High repeatability and high sensitivity that together provide precise, reliable and uninterrupted measurement for all liquids
- Ultra-wide power supply, 24-240V AC/DC, 0-60 Hz.
- FOUNDATION™ Fieldbus, Digital HART® or Analog outputs
- Virtually maintenance-free due to the non-contact measurement method with no moving parts, coupled with continuous self-calibration
- High flexibility with interchangeable transmitter heads and antennas. The transmitter head can be changed with the tank sealed
- Intelligent software support for easy configuration and setup



### Rod antenna

The minimal dimensions make the Rod antenna suitable for tanks with small openings. The tank connection for the rod antenna is designed for 2", 3" and 4" flange connections or 1.5" threaded connections.

### Cone antennas

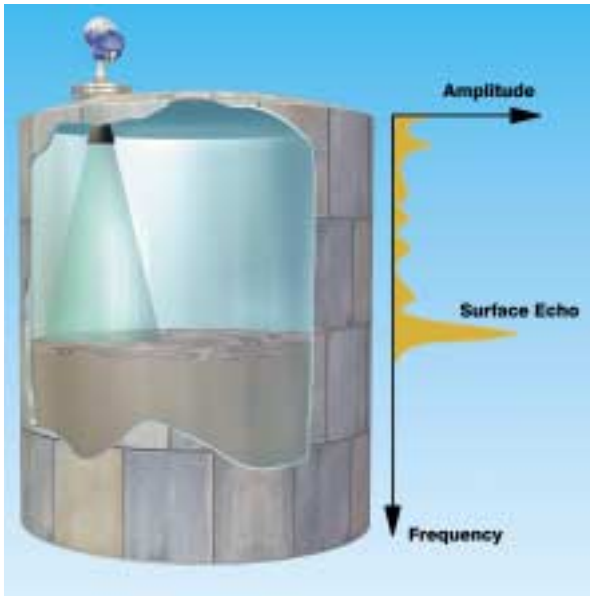
The Cone antenna is suitable for a broad range of applications – in both free-propagation and pipe mounted installations. Thanks to the unique flange clamp solution, the existing tank flange can be used for the tank connection. Antenna versions range from 3" to 8", including a version with an integrated cleaning/flushing connection.

### Process Seal antennas

The dish made of PTFE seals off the cone shaped antenna from the tank atmosphere. This combines the benefits of using a cone antenna with the advantage of only exposing material that is suitable for hygienic or corrosive applications.

### Typical applications

- Liquids and slurries
- A wide range of temperatures, pressures and various process conditions
- Pharmaceutical, food, refinery & chemical process tanks and vessels



## High Sensitivity provides outstanding reliability

The Rosemount Model 5601 Radar Level Transmitter has an ultrahigh sensitivity resulting in outstanding reliability, even under the toughest conditions.

For all radar transmitters, a certain amount of microwave energy has to return to the transmitter. A reliable measurement can only be made if the reflected signal is sufficiently stronger than the noise. This is why sensitivity (or signal-to-noise ratio) is one of the most important qualities when differentiating high-quality transmitters from less reliable transmitters.

A high signal-to-noise ratio makes it possible to detect and measure weaker echoes – which normally appear in process tanks where conditions often change.



## Software module eliminates false echoes

The Model 5601 utilizes a software module that improves measurement reliability in tanks with agitators or other false echo sources.

When there are objects in the tank causing false echoes – such as agitators, baffles, mixers, pipes, and heating coils – the transmitter must be able to distinguish between the actual liquid surface and the interfering echoes. This software module adds sophisticated functionality to improve the 5601's ability to separate interfering echoes from the surface echo.

The software can also use information provided by the operator as a complement to the automatically collected data.

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