



... the level & gas people

ISO-9001 : 2008 CERTIFIED COMPANY

## RF Level Sensors for Bulk Solids & Liquids

### General Application

V. Automat Level Sensors designed to provide fine level information of Solids (Powder & Lumps). Liquids and Slurry applications for Point level detection in storage Bins, Silos, Hoppers, Tanks, Chutes and any other vessels / tanks where material is stored, processed and discharged even at high temperature / Pressure / corrosive applications.

### Description

V. Automat Point level sensor includes an electronic unit and sensing probe, connected by a co-axial cable. The electronic unit consist of an oscillators, a detector and output relay which is controlled by the detector. The probe do not contain electronics or any other sensing element only terminals are provided to connect the signal cable. The probe contains an active section and shield section insulated from each other and from the vessel ground as shown in fig-1.

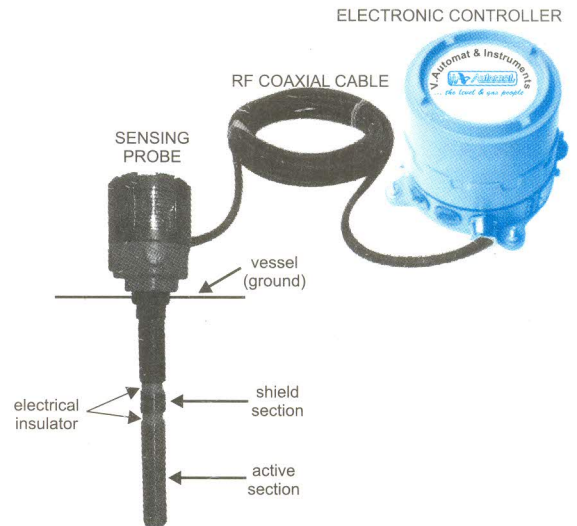


fig-1

### Function

The oscillator generates low-power RF signal which is used to provide signals equal in frequency, phase and amplitude to both, active section and shield section of the probe. The signal applied to the shield is held constant by use of a compensating amplifier. The detector is then used to compare the fixed signal with active signal which varies with the change of media between the probe and Vessel/ Hopper wall. Difference in the signals compared by the detector cause the output relay to activate. The contacts of the output relay to when activated are used to indicate the presence or absence of material in the vessel / Hopper at the probe level.

### Coating

A buildup is not uncommon with a coating on objects protruding into the vessel / tank. A conventional level controls would sense the build -up and record false signals. V-Automat Level Sensors are designed to ignore any build-up of coating on the probe or vessel / tank walls.

### Ambient / Condition

V-Automat standard Level Sensor probes are rated to 250°C ambient temperature of material and special high temperature probes are rated to 600°C.

### Pressure

V-Automat standard sensing probes are rated with a pressure rating of 100 psi. Higher pressure rated probes are also supplied on special demand.

