

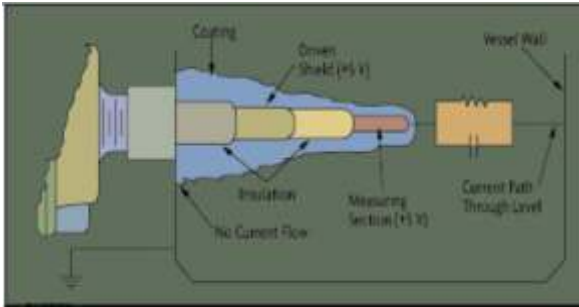
## RF Admittance type Level Switches

			
<b>ROD PROBE</b>	<b>HEAVY DUTY PROBE</b>	<b>BOOT LEVEL</b>	<b>DISC PROBE</b>
			
<b>ROPE TYPE</b>		<b>REMOTE MOUNTED CONTROLLER</b>	

### INTRODUCTION

The RF level switch operates on the basis of RF absorption measurement. The electronic unit generates a sinusoidal wave, applied to the electrode creating a field around it. RF environment absorption changes (electrical loss) around the electrode are reflected on changes of generator supply current. Such changes, caused by the increase in level are amplified and used to energize the relay.

The main drawback of the conventional method is that after the level has once increased and then decreased, there may be a coating left on the probe which is sensed by the instrument as though the level is still on the probe. In this switch, a COAT GUARD amplifier is incorporated in the circuit having its output exactly at the same voltage and phase at all times as its input. The output is connected through the shield of the low capacitance co-axial cable to the concentric tube on the sense probe, called shield element. Since both the elements, sense and shield are exactly at the same potential and phase at all times, there is no current flow through the cable. Thus there is no change in calibration due to coating on the probe and the temperature effect of the cable this makes it possible to lengthen or shorten the cable connecting the switching unit without changing the original calibration.



## SILENT FEATURES

Three-Element Coat Guard Technology: Ignores material build-up on the probe, High Reliability  
Fast and Easy Installation : Simple Calibration.  
Suitable for the highly dusty environment:  
Field selectable operation logic: Field configurable either for High or Low Level point.  
Provides economical solutions: Various models not required. Reduces the Inventory cost.

## FUNCTIONS

The Point Level Switch comprises of a specially designed electronics and sensing probe using DRIVEN SHIELD-COAT GUARD circuit and corresponding 3-Element Probe. The Electro-mechanical combination of the COAT GUARD technique makes the system immune to the material build-up on the probe and material bridging between the probe and the hopper wall.

The unique feature of the system is that the measured signal does not flow to the hopper wall through the probe in the backward direction but flows only through the material (Actual material level) to hopper wall.

## MEASURING SYSTEM

The complete system consists of the sensing probe and the electronic switching unit.

## PRIMARY AREA OF APPLICATION

Building industry materials, cement, sand, lime, etc.  
Food stuff industry, milk powder, flour, salt, food grains, etc.  
Plastic industry, powder, granular etc.  
Timber industry, chemical and mining etc.

## TECHNICAL SPECIFICATIONS (STANDARD)

### SWITCHING UNIT:

Housing : Aluminum, weather proof, powder coated. Integral with The probe/  
Suitable for back panel mounting.  
Cable entry : 2 nos.  
Ambient Temp. : 0° C to +60° C  
Power : 1.9 VA  
Mains Voltage : 230/110 V AC (+/-15%), 50 Hz, or 24 V DC  
Output : 2 sets of potential free c/o contacts, of 5 amps, 230 VAC for non-inductive loads.  
Switching delay : Field adjustable from 2 to 20 sec. probe Free or probe covered. (Optional),  
Safety operation : Field selected switch over for min. or max.(FSL/FSH)switching points.  
Switch Status - : Green LED shows Normal, Red LED shows alarm, Yellow LED shows power-  
Display on condition.

### COAT GUARD SENSING PROBE:

Mounting : Screwed – 1 ½” BSP (Standard) Or, Flanged (Optional)  
Sense rod : Stainless steel  
Shield : Stainless steel  
Insulation : PTFE (standard) Other on request and as per application.  
Operating Temperature in vessel : 100°C for the integral switching vessel unit.  
225°C for remote switching unit

Continuous efforts for product development may necessitate changes in these details without notice

Authorised Dealer



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