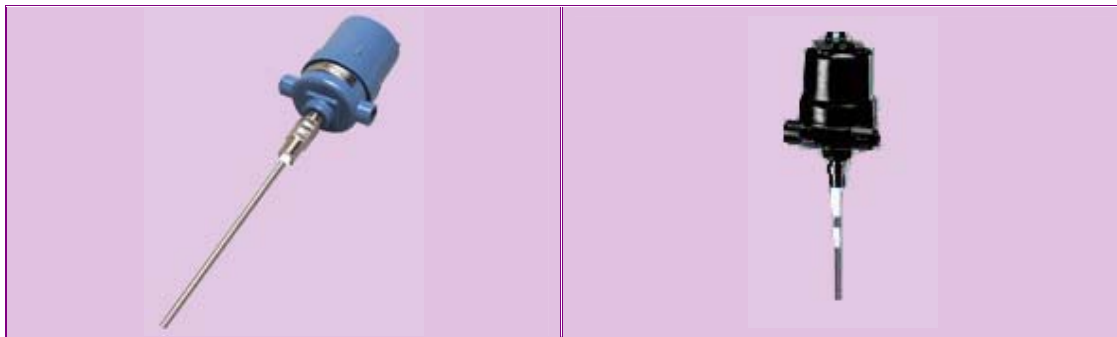


RF LEVEL MONITORING INSTRUMENTS

The RF type level switch is a simple, low cost, rugged level point controller designed for detection of materials kept in a tank, bin or vessel. This level switch can be used for detecting high, low level or for differential level control and is used in chemical industry, power utilities industry, food industry, pulp/paper industry, pharmaceuticals industry, water / waste industry, foundry industry etc.

The specialty of the probe is that it tends to ignore the build up on the probe, thus making it suitable for application, which tends to stick on the probe.

The unit has integral electronics along with time delay feature, LED indication, fail safe mode etc.



COAT CHECK PRINCIPLE

Normal probe tends to fail when there is a build up on the probe. The COAT CHECK electrode senses the build up on the probe by employing a special technique. The COAT CHECK electrode which is insulated from the active electrode and the ground is driven with same RF frequency as that of active electrode and having the same polarity. When a coating is formed on the probe, the RF current from the COAT CHECK electrode tends to saturate the build up area between COAT CHECK electrode and tank body thereby no electrical energy will flow from active electrode to tank wall. When the material rises and touches the active electrode, a RF current will flow from the active electrode to ground over and above the saturated region formed by the COAT CHECK electrode.

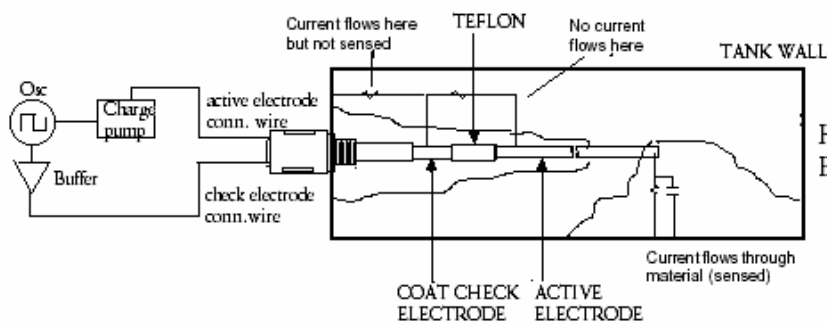


Fig 2: Probe schematic for Build up phenomena

SALIENT FEATURES

- ❖ Wide range of application
- ❖ Easy installation and maintenance.
- ❖ Weatherproof/Flameproof enclosure as per requirement
- ❖ Sturdy electrode to withstand impact due to accidental clinker formation
- ❖ Alumina insulated electrode capable of withstanding 300°C
- ❖ No moving parts, no mechanical wear and tear.
- ❖ Adjustable time delay with ON/OFF delay
- ❖ Fail Safe High/Low Selection Feature (Field configurable) Available
- ❖ Ignores Build Up of Sticky and Conductive Material between Probe and Vessel Walls

SPECIFICATIONS

MODEL NUMBER	RFS - 100
SUPPLY VOLTAGE	230VAC or 110VAC or 24V DC(factory selectable)
OUTPUT TYPE	1DPDT Relay / 2DPDT Relay
CONTACT RATING	5 AMPS at 230VAC /24VDC, Resistive load
CABLE ENTRY	Dual, ¾ " ET or ½" NPT, etc.
TEMPERATURE	0-100°C for integral type. 0-225°C for remote type
PROBE	Type: Rigid rod with COAT CHECK electrode Insulation: Teflon/Ceramic (for high temperature) Length: As per requirement
MATERIALS	Housing: Cast aluminum Electrode (active and coat check electrode): SS316/SS304 Flange/Adapter: SS316/SS304/C.S.
MOUNTING	Flanged or threaded process connection as per requirement.
PROTECTION	Weatherproof as per IP 66 Flameproof (optional)
FREQUENCY	93.8 KHz
TIME DELAY	0 To 10 seconds adjustable With ON/OFF delay selection
FAIL SAFE	Selectable Max. / Min.

INFORMATION REQUIRED ON ORDERING

- Process Parameters: Temperature, pressure, atmosphere hazardous or not.
- Application media characteristics: Sp. Gr., Dielectric constant, hazardous or not, corrosiveness, viscosity.
- Vessel details- Dimension, Mounting location and MOC.



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