

R.F. Admittance/Capacitance Type Level Switch



P-tron Point Level Switch, a reliable low-cost on/off level switch

P-tron level switch, based on field proven RF Admittance technology is designed to cater all types of applications. The unique Cote-shield electronics along with 3 terminal sensor enables the P-tron to ignore sticky coatings, dust ups and sticky build ups on the sensing element. Suspended dust particles are also no problem as the P-tron reacts only to actual high or low level condition

The compact one-piece unit is inserted through a 3/4 inch NPT opening in the vessel so that the sensing element is positioned at the desired high or low level. When the material level reaches a predetermined point on the sensing element, it causes a change in current at the electronics, resulting in actuation of the DPDT relay. The relay can be used to operate alarms, annunciators, valves or other control or indication devices.

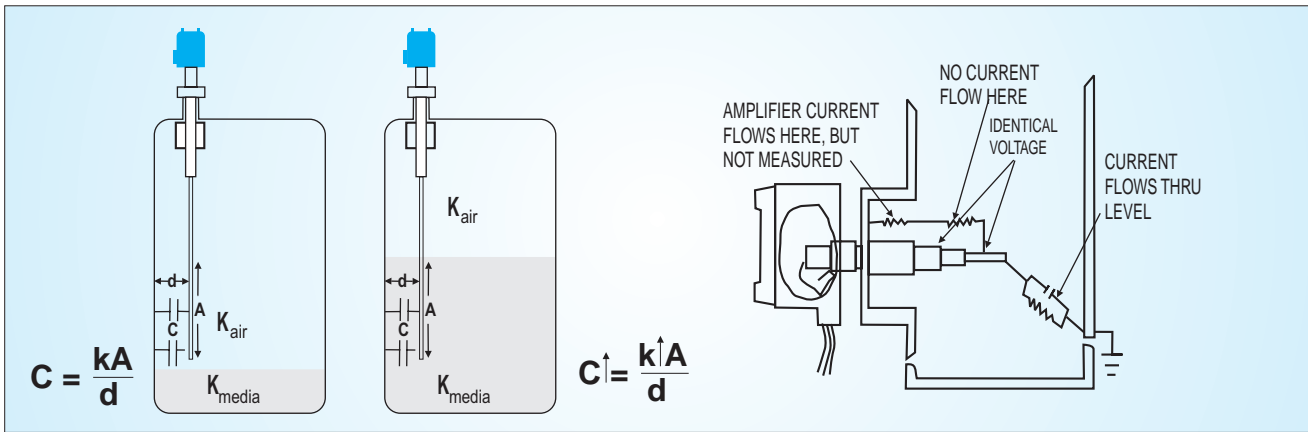
SALIENT FEATURES

- **Universal Application**
For use with Liquids, Solids, Slurries, Interfaces & Corrosive medias.
- **Economical**
Competitively priced compared to all the standard available makes in India. No expendable parts to buy and stock.
- **Easy-Installation**
One-piece unit is easily installed through a single vessel opening. Calibration is quick and simple.
- **Maintenance-Free**
No moving parts means no paddles, vibrating fins or other components to jam, break or wear out. No need for routine maintenance, cleaning or replacing of worn parts.
- **Operation in all Direction**
(Horizontal/ Vertical Mounting)

TECHNICAL APPLICATIONS

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| <ul style="list-style-type: none"> ● Fly Ash ESP Hoppers & Bunkers ● Acid/ Alkali handling & closing ● Cement Clinkers ● Flour & Doughs ● Dairy & Food Industries ● Solid & Bulk material handling / Conveying | <ul style="list-style-type: none"> ● Urea silos & Bagging plants ● Paint shops ● Pre - mix Concrete plants ● Water & Sewage plants ● Liquid & Organic Solvents |
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RF PRINCIPLE



RF Admittance Technology

Radio Frequency Admittance is a technology that takes Capacitance & Conductivity into account when computing the level. The measurement is made at the predetermined radio frequency between 15 KHz and 400 KHz.

Operating Principle

In a simple capacitance probe type-sensing element, when the level rises and material covers the probe, the capacitance within the circuit between the probe and the media (conductive applications) or the probe and the vessel wall (insulating applications) increases. However, when there is coating of the probe, it malfunctions.

An RF Admittance level switch is the next generation. Prism Level Switch employs a radio frequency signal and adds the Cote-Shield circuitry within the Electronics Unit.

This cote-shield circuitry enables the instrument to ignore the effect of buildup or material coating on the sensing element. The cote shield element of the sensor prevents the transmission of RF current through the coating on the sensing element. The only path to ground available for the RF current is through the material being measured.

The result is an accurate measurement regardless of the amount of coating on the probe, making it by far the most versatile technology, good for very wide range conditions from cryogenics to high temperature from vacuum to 1000 psi pressure, and works with all types of materials (Solids, Slurries, Liquids & Interfaces).

SPECIFICATIONS

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| Power requirement | : 120 ± 25 Vac, 50/60 Hz (std), 230 ± 25 Vac, 50/60 Hz (optional) 24 Volts Ac/DC, (5 watts max.) |
| Output | : DPDT relay |
| Contact Rating | : 230 VAC @ 5 amp non-inductive load |
| Spark Tolerance | : 10 amps (std) 100 amps (available) |
| Fail safe | : High (HLFS) or Low (LLFS) field Adjustable |
| Response Time | : Approx. 0.2 sec. Adjustable 0-90 seconds (optional) |
| Differential | : 1/64" (0.4 mm) or less |
| Stability | : 0.05 pF/6 mo. Max (or 0.01 pF /6 mo. Max) |
| Recommended Operating Temperature | : -40°C to 120°C, 200°C Remote mounting /450°C with ceramic |
| Sensing Element | : SS 316 / SS 304 & PTFE / ceramic |
| Process Connection | : 3/4" NPT Standard, Flange Optional |
| Pressure Limits | : Standard 20kg/cm ² Special pl. Consult |
| Electronic Housing | : Pressure Diecast Aluminium, Epoxy Coated IP 65 protection. |

Product upgradation is a continuous process, hence Data included is subject to change without any prior notice.

For more details, please contact :



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