# YPL INSTRUMENTS PVT. LTD.

## RF LEVEL SWITCH: YPL-RFLS006

### Description

RF level switches deliver peak performance at low cost. Based on Radio Frequency principle for Solids, Liquids, Slurries.

### Operation

It works on Radio Frequency Principle. Independent but identical low power RF signals equal in frequency, phase, and amplitude and wave shape generated in Electronic Controller are provided to active and shield sections of the Sensing Probe whereas , the reference ground of electronics is connected to the vessel shell . The signal provided to the shield section is maintained constant by use of a compensating circuit in the Electronic Controller while the signal applied to the active section varies with the change of media between probe and the vessel shell. The suspended dust or material in transit do not have cohesive inter-particle contact and have no role in this RF principle of Level Sensing. The variation in active signal is compared with the constant shield signal. At a predetermined value of difference a relay is actuated to obtain potential free relay change over.

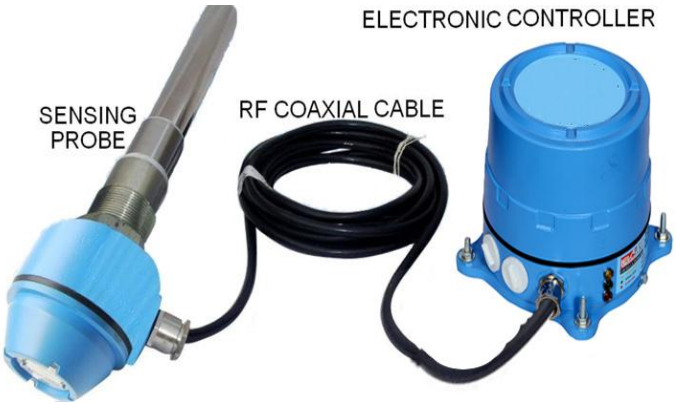


FIG.1

### Specification

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| **Electronic Controller RFLS10-EC** | • Solid state, circuitry.<br>• Supply voltage: 240/110/24 VAC 50/60Hz & 24 VDC<br>• DPDT relay output, rating 5 Amps @240 VAC.(potential free)<br>• Only one calibration adjustment.<br>• Fail safe to high or low level Local indications 'Normal',' Alarm', 'Probe Healthy'.<br>• Remote from probe upto 20 mtrs max.<br>• Cable Entry- 3/4 ET for power Cable<br>3/4 ET for Output Signal Cable<br>1/2 ET for connection of Coaxial Cable | | |
| **Sensing Probes** | Probe Insertion Length | : | 0 to 10 mtrs. |
| | Process Temperature | : | 250°C / 600°C |
| | Protection | : | IP 65 |
| | Mounting | : | Side /Top |
| | Process Connection | : | Thread or Flange (As required) |
| | Cable Entry | : | "1/2 ET for connection of RF Coaxial Cable |
| | Insulation | : | PTEF / Ceramic |
| | Cable to Electronic Controller | : | RF Coaxial cable |

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| **Probe Types** | **Rigid Probe (Model RFLS06-RD)**<br>Application: Solids (Powder & Granules) Insertion standard 300 mm to 2000 mm<br><br>**Insulated Probe((Model RFLS06-IN)**<br>Application: Liquids & Conductive Materials in particle Size finest to max. 50 mm Insertion 150 mm to 10mtrs (as per requirement)<br><br>**Flexible Probe (Model RFLS06-FL)**<br>Application: Solids (Powder & Granules) Insertion 1000 mm to 1500 mm<br><br>**Flushed Probe (Model RFLS06-FD)**<br>Application: Bucket Elevator Boot, Chute Blockage, Air Slid Jam Sensing & Hoppers/Vessels of Solids (Powder & Granules) |
| **Temperature** | Upto200°C & 600°C (if required) |
| **Pressure** | 15 bar max |
| **Wetted Parts** | 304/316/316L/PTFE Coating |
| **Extensions Tube** | 100mm to 3,500mm |
| **Flexible Rope** | If required for long length Upto10 mtrs |

## Features

Appropriate operating torque to suit service material, can be set through adjustable spring inside the housing. Motor operating the paddle is protected from overload by means of magnetic clutch.
Flexible spring shaft for absorbing material shocks.
Protection shield for horizontal / inclined installation for protection of paddle from material flow / dumping. Two bearing shaft assembly for reduced wear and increased reliability.
Ash seal assembly for dusty environment.

## Application

Cement, Powder, Steel, Food, Chemicals, Fertilizer, Sugar, Detergents etc.