



## RF Capacitance Level Switch For Fly Ash

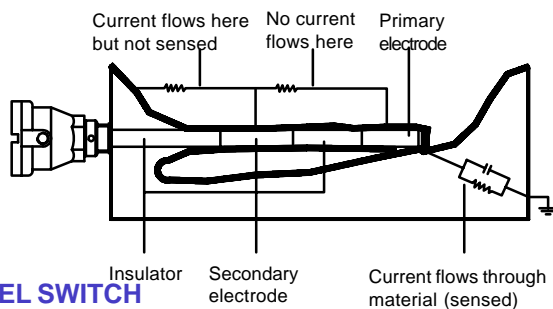
R.F. Capacitance Type Level Switch series 114 with coat-safe electrode has been specially designed for detecting level of fly ash in ESP hoppers.

### FEATURES

- ❑ Surface / pipe mounting versions
- ❑ Adjustable time delay (optional)
- ❑ Transducer moulded in epoxy for shock and corrosion resistance
- ❑ Sturdy electrode to withstand impact due to accidental clinker formation
- ❑ Alumina insulated electrode capable of withstanding 300°C with High Temperature Stand Off (HTSO)

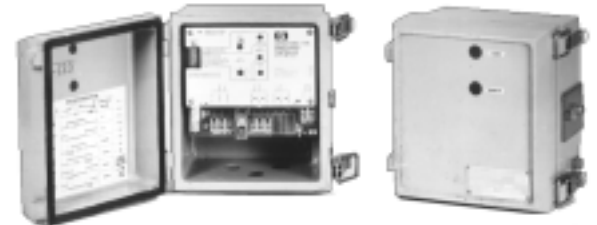
### 'COAT-SAFE' PRINCIPLE

Normal probe may not perform satisfactorily if the process material builds up on the probe to a significant degree. The 'coat-safe electrode' is designed to overcome this problem. In this type of electrode, in addition to the primary sensing electrode, a secondary 'coat-shield' electrode, insulated from ground & primary electrode is used. This electrode is driven with signal of equal phase & amplitude as primary electrode. When there is a coating / material buildup on electrode, no current flows between primary and secondary electrode. When the product level in the vessel rises & covers the primary electrode, it causes a current to flow which is sensed, causing the switch to operate.



### LEVEL SWITCH

- ❑ Input : Voltage signal from transducer in probe head
- ❑ Indications : Red LEDs for Mains ON, Alarm ON (std.) & Level above setpoint (optional)
- ❑ Relay contacts : 1 C/O, 6A @ 230 VAC/28 VDC (resistive) - std. 2 C/O, 2A @ 230 VAC/28 VDC (resistive) - optional
- ❑ Failsafe Features : Failsafe high or low (user selectable)



- ❑ Time delay (optional) : 12 sec-2 min & 2 -20 min (user adjustable through potentiometer & selectable multiplier at the front)
- ❑ Controls : Potentiometer to set Level Alarm (standard) Potentiometer to set Time Delay (optional)
- ❑ Ambient conditions : Temperature - 0 to 55°C Relative humidity - 95% max (non condensing)
- ❑ Cable entry : 3 Nos., 3/4" UNF/ET OR 3 Nos., 1/2" NPT
- ❑ Termination : Suitable for 2.5 mm<sup>2</sup> conductor size
- ❑ Cabling between Switch & Probe Head : 3x1.5 mm<sup>2</sup> Cu. cable - Upto 500 mtrs. 3x2.5 mm<sup>2</sup> Cu. cable - Upto 1000 mtrs. (cable resistance <10 ohms per line)
- ❑ Enclosure : Weatherproof, cast aluminium polyurethane painted, conforming to IP-65 as per IS:2147-1962 suitable for surface / pipe mounting.
- ❑ Weight : 3.2 kg (approx.)

### PROBE HEAD

- ❑ Enclosure : Weatherproof, cast aluminium polyurethane painted, conforming to IP-65 as per IS:2147-1962
- ❑ Cable entry : 1 No., 3/4" UNF/ET (std.) or 1/2" NPT (optional)
- ❑ High Temperature Stand Off (HTSO) : 350 mm in MS with SINDANO flange

### TRANSDUCER

- ❑ Type : T 912
- ❑ Operating voltage : 12 VDC from switch
- ❑ Operating frequency : 450 KHz
- ❑ Termination : Suitable for 2.5 mm<sup>2</sup> conductor size

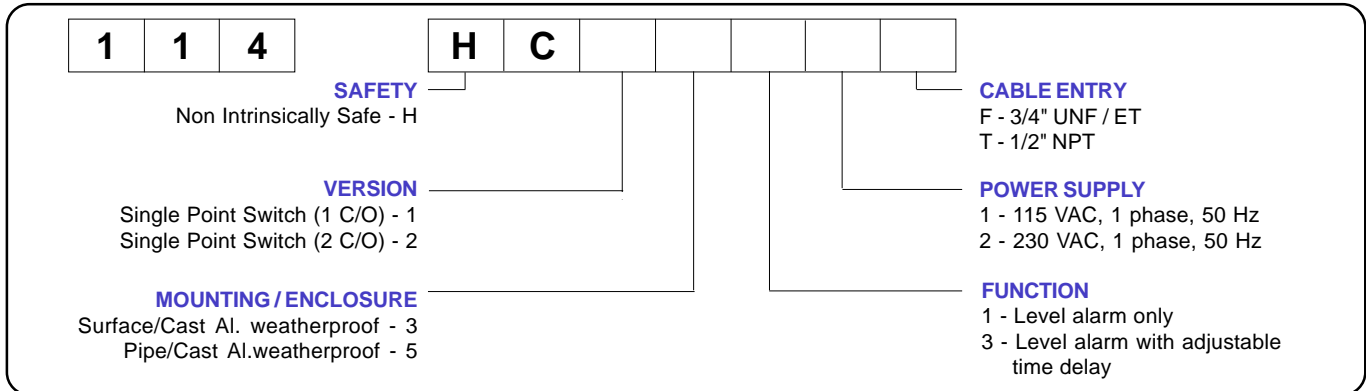
### ALUMINA INSULATED COAT SAFE ELECTRODE

- ☐ Material of construction : SS 304
- ☐ Mounting : Side mounted
- ☐ Operating temperature : Upto 300°C
- ☐ Length : 300/450/600mm
- ☐ Process connection : SS 304 threaded -1½" BSP

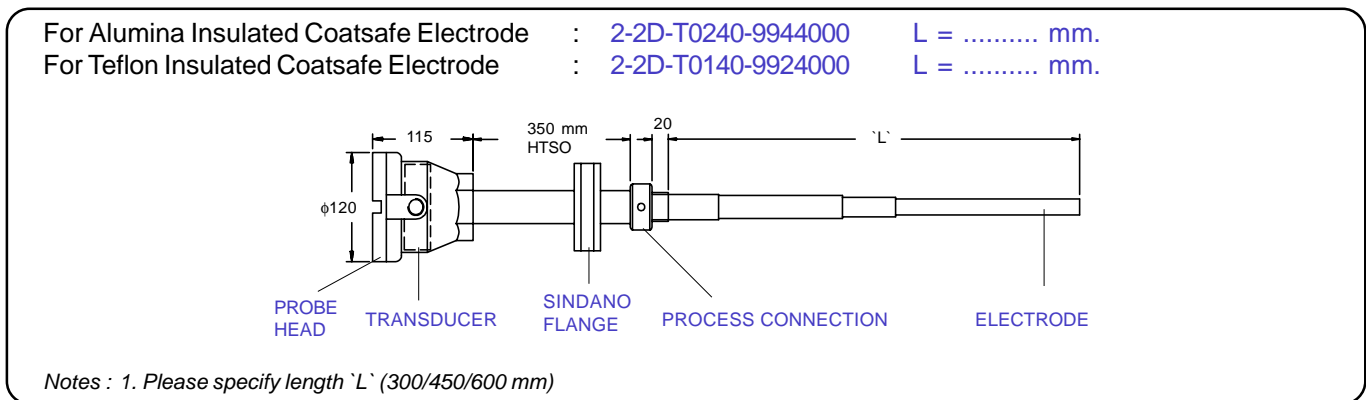
### TEFLON INSULATED COAT SAFE ELECTRODE

- ☐ Material of construction : SS 304
- ☐ Mounting : Side mounted
- ☐ Operating temperature : Upto 180°C
- ☐ Length : 300/450/600mm
- ☐ Process connection : SS 304 threaded -1" BSP

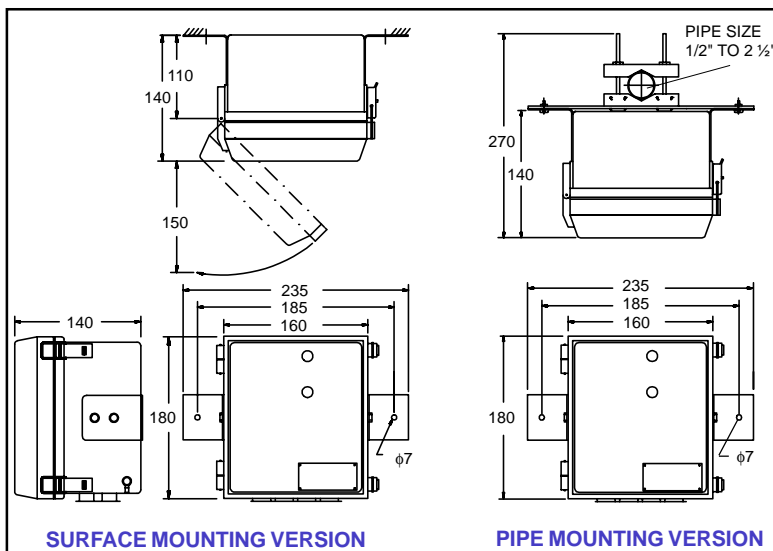
### ORDERING CODE FOR LEVEL SWITCH



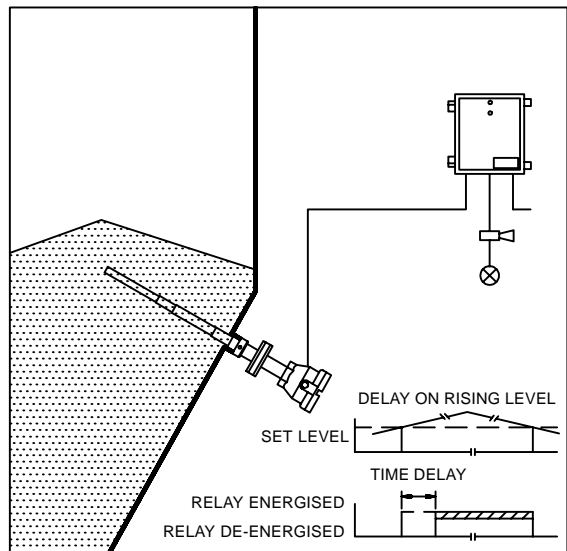
### ORDERING CODE FOR PROBE UNIT



### DIMENSIONS



### APPLICATION



\*\*\* Continuous developments may necessitate changes without notice.

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