

For Monitoring Water and Oil Level

The sensor contains two probes each with a continuous coiled RTD (Resistance Temperature Detector) and one with an additional continuous heater of the same length as the RTD. The probe with RTD & Heater will be Active Probe and the other one with only RTD will be Reference Probe. The probes are placed at a small distance with each other so that there is minimum Heat Transfer between them.

While in operation the active probe will be heated to a temperature more than the ambient temperature so that there is a temperature difference (ΔT) between the active probe and the reference probe. ΔT will be maximum when the Fluid level is minimum as there will be less heat transfer from the active probe to surroundings. And similarly the ΔT will be minimum when the fluid level is maximum as ~99% of the heat will be dissipated from the Active probe to the fluid. This change in ΔT can be used to calculate the corresponding Level of fluid using special electronics provided with the sensor.

The transmitter having a power supply option of both 24V DC and 230 V AC, will take input from both the RTD's in ohms and will convert it into 4-20mA signal which can be interpreted into the corresponding level of the fluid in the tank and same will be cast on a display unit supplied with the sensor.



Sensor Part

Element 1 (Reference)	RTD (Pure Nickel)
Element 2 (Active Probe)	RTD + Heater (Nichrome)
Termination	IP 67 Terminal Head
Flange	SS 304L/ SS 316L
Holding Tube	SS 304L/ SS316L
Junction Box	Die cast Aluminium
Measurement Range	0.5 Meter to 10 Meter Temperature – 0 to 120°C
Accuracy	±2% of full span
Response Time	Increasing Level – 3min Decreasing Level – 7min
Qualifications (Sensor)	Harsh Environment Test as per IEEE 323

Key Features

- Cost effective
- Longer Life up to 20 years
- Continuous measurement instead of distinct point measurement
- Probe Replacement option
- Customizable according to various applications

Electronics Part

Output	4-20mA
Ambient Temp.	5°C to 55°C
Power Supply	24 VDC
Qualification	Seismic Test as per IEEE 344

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