

Dynalab[®]

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ISO 9001 : 2008 REGISTERED

TEMPERATURE AND HUMIDITY COMBINED SENSOR MODEL DLTH 8702

1)Temperature

Sensing	: RTD sensing element PT1000 mounted inside a weather shield
Range	: - 40 degrees to + 60 degrees Celsius.
Resolution	: 0.1 degrees Celsius.
Accuracy	: ± 0.2 degrees Celsius.
Output	: 0 to 1V
Weather Shield	: Non Aspirated Weather shield coated with weather proof reflective white paint.
Size of body	: 200(H) x 150 mm diameter(with weather shield)..
Housing	: Nylon body with weather shield and brass stem to mount the sensor..
Power requirement	: 5V DC

PRINCIPLE OF OPERATION :

The sensor used for measurement is an RTD (PT 1000). Here the resistance of the element varies with temperature (increases with temperature), approximately 0.39 ohms/degree Celsius. Output is 0 to 1 Volt corresponding to -40 to 60 deg C

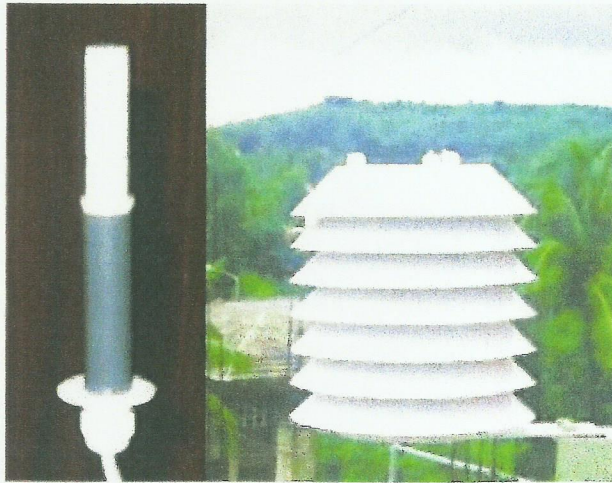
Humidity:

Sensing	: Solid state capacity type sensor.
Resolution	: 0.1 %.
Range	: 0 to 100 % operating at -40 C to +50 C
Accuracy	: $\pm 3\%$ of full scale reading.
Operating Temperature	: -40 ° C to +50 ° C.
Power requirement	: + 5 volts DC.
Power consumption	: ~ 4 mA.
Output	: 0- 1V for 0 to 100% humidity
Weather Shield	: Non aspirated Weather shield with weather proof reflective white paint coating.(commont for Temp and humidity)

PRINCIPLE OF OPERATION:

Humidity sensor features an improved design to provide highly accurate and rapid measurements. The humidity sensor is a thin film capacitor element. A dielectric polymer absorbs water molecules from the air through a thin metal electrode and this causes a capacitance change proportional to humidity. The response is essentially linear. A suitable filter is provided to protect the sensor element from dirt, atmospheric pollutant and water condensation.

A solid state electronic circuit is built in each probe to produce 0 to 1000 M.Volts output signal corresponding to relative humidity value 0 to 100 %. The output is single ended.



The whole sensor is mounted in a weather shield to protect it from direct solar radiation and rain.

Ordering Information:

Dynalab Humidity Sensor with Shield DLTH 1702 X

B—Brass Epoxy coated Stem

S— SS 316 Stem