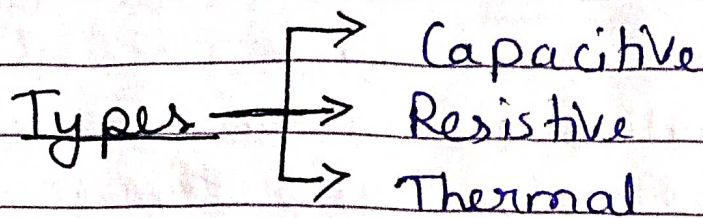


Humidity Sensors (hygro meter)

It senses, measures and reports both moisture and air temperature. The ratio of moisture in the air to the highest amount of moisture at a particular air temperature is called relative humidity.

It work by detecting changes that alter electrical currents or temperature in the air.



• Capacitive

- \rightarrow It measures relative humidity by placing a thin strip of metal oxide between two electrodes.
- \rightarrow The metal oxide's electrical capacity changes with the atmosphere's relative humidity.
- \rightarrow Weather, commercial and industries are the major application areas.

• Resistive

- \rightarrow It utilize ions in salts to measure the electrical impedance of atoms. As humidity changes, so do the resistance of the electrodes on either side of the salt medium.

• Thermal

- \rightarrow Two thermal sensors conduct electricity based upon the humidity of the surrounding air. \otimes

- One sensor is encased in dry nitrogen while the other measures ambient air.
- The difference between the two measures the humidity.

Working

It usually contain a humidity sensing element along with the thermistor to measure temp. (Types).

Applications

- It is used for various applications for measuring humidity in HVAC systems, Printers, Fax machines, Weather stations, automobiles, food processing, refrigerators etc.
- Due to their low cost and small size, resistive sensors are used in residential, industrial and domestic applications.
- Thermal conductors are commonly used in pharmaceutical plants, food dehydration, drying machines etc.