Humidity Sensor type HUM21+

FEATURES

- **Molded thermoset plastic housing with cover**
- **Linear voltage output vs %RH**
- **Laser trimmed interchangeability**
- **Low power design**
- **High accuracy**
- **Fast response time**
- **Stable, low drift performance**
- **Chemically resistant**

Direct to interface with EKO21 or iBOX datalogger with 16 bits AD converter

The HUM-21+ Series humidity sensor is designed specifically for high accuracy measurements. Direct input to datalogger EKO21 or iBOX (or other device) is made possible by this sensor's linear voltage output. With a typical current draw of only 200 uA, the HUM-21 Series is ideally suited for low drain, battery operated systems. Tight sensor interchangeability reduces or eliminates OEM production calibration costs.

The HUM-21+ Series delivers **instrumentation-quality** RH (Relative Humidity) sensing performance in a low cost. The RH sensor is a laser trimmed thermoset polymer capacitive sensing element with on-chip integrated signal conditioning. The sensing element's multilayer and the hydrophobic filter provides excellent resistance to application hazards such as wetting, dust, dirt, oils, and common environmental chemicals and can be built in weather screen WS21 for **outdoor applications** (for protection against rain and solar radiation), can be supplied also together with temperature sensor TS21: **a low cost precision and compact Temperature/ Humidity sensor unit**!

TYPICAL APPLICATIONS

- **Meteorology**
- **Drying/refrigeration**
- **Weather stations**
- **Battery-powered systems**
- **OEM assemblies**

Standard Factory Calibration Transfer Function @ 25C (Vsupply 5.00 V)
Linear function:
RH=[(Vout/5)-0.1515]/0.00636
Example calibration values:

Output (V)	RH (%)
2.5	54.79
1.25	15.49

Sensor is Temperature compensated when used in iBOX or EKO21N systems

Optional WS21 weather screen

PERFORMANCE SPECIFICATIONS

RH Accuracy : typ. ±2% RH, (range 10-90% RH) typ 3 % for RH>90 % or RH <10%
Operating range : 0-100% RH non-condensing
RH Linearity : ±0.5% RH typical