

## Humidity Sensor



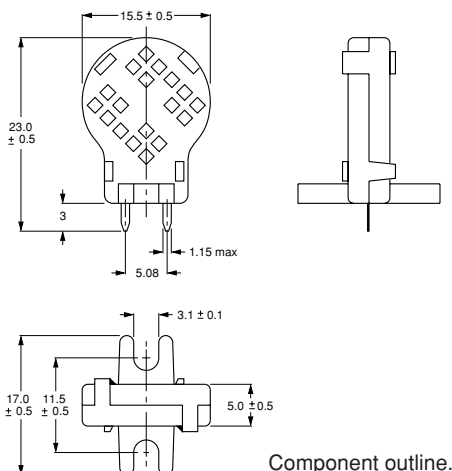
### QUICK REFERENCE DATA

| PARAMETER   | VALUE      | UNIT   |
|---|------------|--------|
| Humidity range (RH)   | 10 to 90   | %      |
| Capacitance at +25 °C; 43% RH; 100 kHz  | 122 ±15%   | PF     |
| Tan δ at +25 °C; 100 kHz; 43% RH  | ≤0.035     |        |
| Sensitivity between 12 and 75% RH   | 0.4 ±0.05  | PF/%RH |
| Frequency   | 1 to 1000  | kHz    |
| Temperature dependence  | 0.1        | %RH/K  |
| Response time in minutes<br>(to 90% of indicated RH change at +25 °C,<br>in circulating air): |            |        |
| between 10 and 43% RH   | <3         |        |
| between 43 and 90% RH   | <5         |        |
| Hysteresis (for RH excursion of<br>10 to 90 to 10%)   | ≈3         | %      |
| Maximum AC or DC voltage  | 15         | V      |
| Storage humidity range (RH)   | 0 to 100   | %      |
| Ambient temperature range:  |            |        |
| operating   | 0 to +85   | °C     |
| storage   | -25 to +85 | °C     |
| Drop test:<br>height of free fall   | 1          | M      |
| Mass  | ≈1.3       | G      |

#### Note

Unless otherwise stated, measurements are in accordance with "IEC publication 60539".  
Stability is in accordance with "CECC 43000" and "IEC 60068-2".

### DIMENSIONS in millimeters



Component outline.

### APPLICATIONS

- Humidity measurements in electronic hygrometers for domestic use
- Self-regulating air humidifiers, etc.

### DESCRIPTION

This capacitive atmospheric humidity sensor consists of a non-conductive foil, which is covered on both sides with a layer of gold. The dielectric constant of the foil changes as a function of the relative humidity of the ambient atmosphere and, accordingly, the capacitance value of the sensor is a measure for relative humidity. The foil is clamped between contact springs and assembled in a plastic housing. It is provided with two connecting pins which fit printed-circuit boards with a grid pitch of 2.54 mm, provision is also made for fastening with 3 mm bolts. The characteristics are not affected by incidental water condensation on the sensor foil. It should not be exposed to either acetone or chlorine vapours.

### MOUNTING

The device can be soldered directly on to a printed-circuit board or fastened with 3 mm bolts.

### SOLDERING

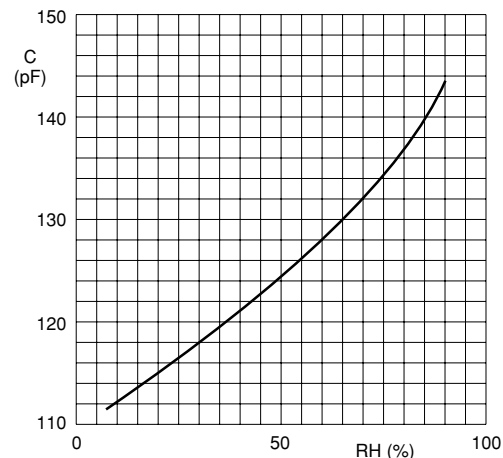
Solderability: ≤240 °C; ≤4 s.

Resistance to heat: ≤240 °C; ≤4 s.

### ROBUSTNESS OF TERMINATIONS

Tensile strength: 10 N.

### ELECTRICAL CHARACTERISTICS



Typical capacitance as a function of relative humidity.

单击下面可查看定价，库存，交付和生命周期等信息

[>>Vishay\(威世\)](#)