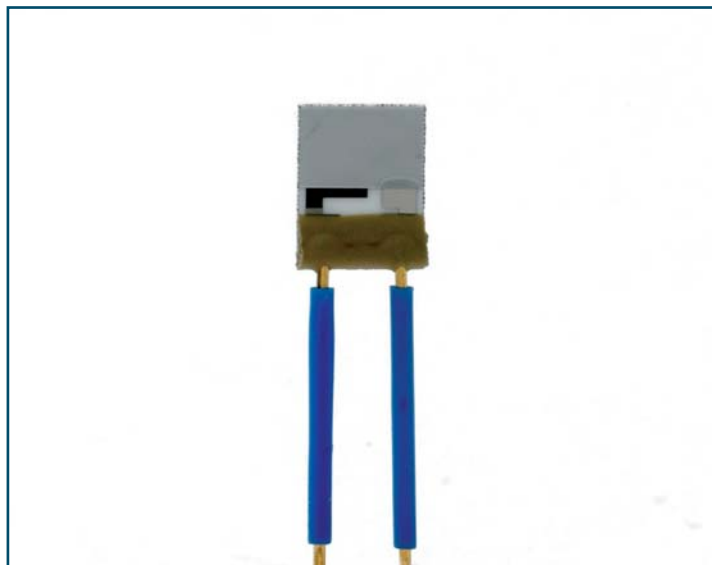


H3000

Capacitive Humidity Sensor



Technical Specifications	
Humidity operating range	5–90% RH
Operating temperature range	-22 to +265°F / -30 to +130°C
Capacitance 30% RH @ 23°C / 73°F	150 pF ± 50 pF
Sensitivity (15–90% RH)	0.25 pF/% RH
Loss Factor	< 0.01
Accuracy (15–90% RH @ 23°C / 73°F, after one point calibration)	< 1.5% RH
Hysteresis	< 1.5% RH
Response Time T ₆₃	< 5s (50% to 0% RH)
Frequency Range	1–100 KHz (recommend 10 KHz)
Maximum Operating Voltage	< 12 Vpp AC
Signal Form	alternating signal without DC bias

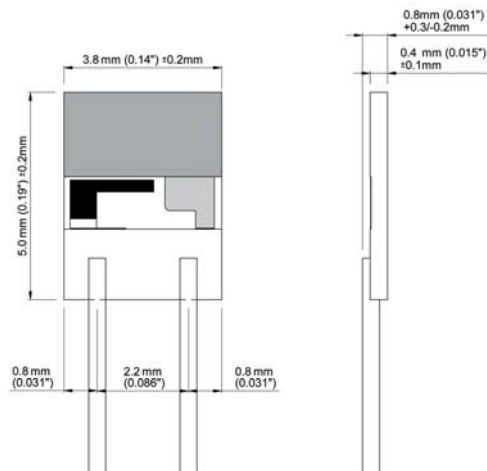
The H3000 humidity sensor can be used in a wide range of HVAC applications. Through the consistent use of state-of-the-art production technologies and our extensive know-how in the field of high performance polymers, we have succeeded in producing a high quality sensor with an almost linear characteristic. The possibility for selecting the electrical connections provides users with ideal opportunities for implementing their own sensor design without limitation.

Order Codes	
H3000	Minimum order 50 pieces

Highlights

- Applicable in HVAC products
- Good long term stability
- High resistance to various chemicals
- Wide temperature operating range

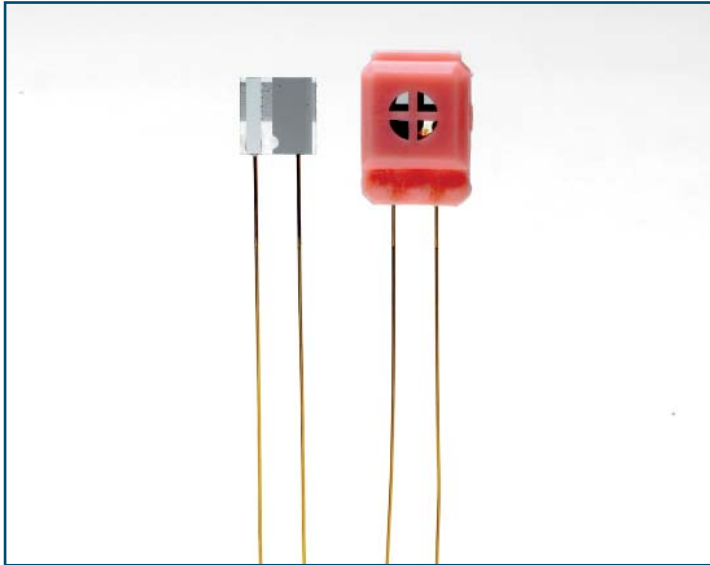
Dimensions



Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: H3000-H5000_1001US_P

H5000 & 5100

Relative Humidity Sensor



The operating principle of these capacitive relative humidity sensors is based on the hygroscopic properties of a polymer coating, which changes capacitance in response to local RH. The polymer reaches equilibrium with the ambient RH quickly and reversibly, and changes its capacitance value depending on the humidity level.

Highlights

- Capacitive thin film sensor
- Measuring range: RH 0–100%, Temp: -25 to +390°F / -30 to +200°C
- Mixing ratio: 250g/Kg of dry air
- Low hysteresis
- Response time: 4 seconds

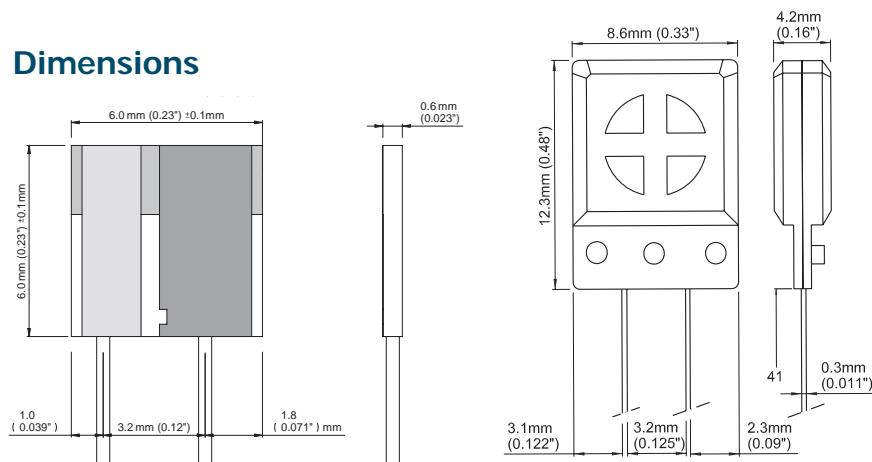
Technical Specifications

	H5000	H5100
Response time 90% of scale for a step change from 11% to 75% RH	4 sec	4 sec
Operating range		
Humidity	0–100% RH	0–100% RH
Temperature	-30 to +200°C	-30 to +100°C
Pressure	/ -22 to +392°F	/ -22 to +212°F
	0.04–30 bar /	0.04–30 bar /
	0.6–400 psi	0.6–400 psi
Mixing ratio	250g water/Kg dry air	
Nominal capacitance 75% RH @ 23°C / 73°F	500 pF ± 10%	
Sensitivity 11–75% RH @ 23°C / 73°F	0.86 pF/% RH	
Linearity 11–90% RH @ 23°C / 73°F	± 2.5% RH	
Long term stability (12 months) control @ 11% RH	< 1% at 23°C / 73°F	
Maximum air speed (without protection)	< 20m/sec	
Hysteresis	Typical value = 0.5% RH	
D Factor loss tangent @10 KHz 75% RH @ 23°C / 73°F	Typical value = 0.007	
Supply voltage Peak-to-peak	2.5 VAC DC component < 0.2 V	
Operating frequency range	5–300 KHz	
Protection Cap	No	Yes
Weight	0.1g / 0.0004oz	1g / 0.035oz

Order Codes

H5000	Minimum order 50 pieces
H5100 (with protective cap)	Minimum order 50 pieces

Dimensions



Please note: Michell Instruments adopts a continuous development program which sometimes necessitates specification changes without notice. Please contact us for latest version. Ref: H3000-H5000_1001US_P



Process Measurement & Controls, Inc. Email: sales@pmc1.com
 Michell Instruments RH Web: www.michell.com/us/rh
 11 Old Sugar Hollow Road Tel: 203-792-8686
 Danbury, CT 06810 USA Fax: 203-743-2051

Represented by: