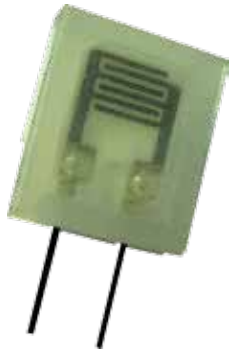
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Application Note

Humidity Sensor HS30P



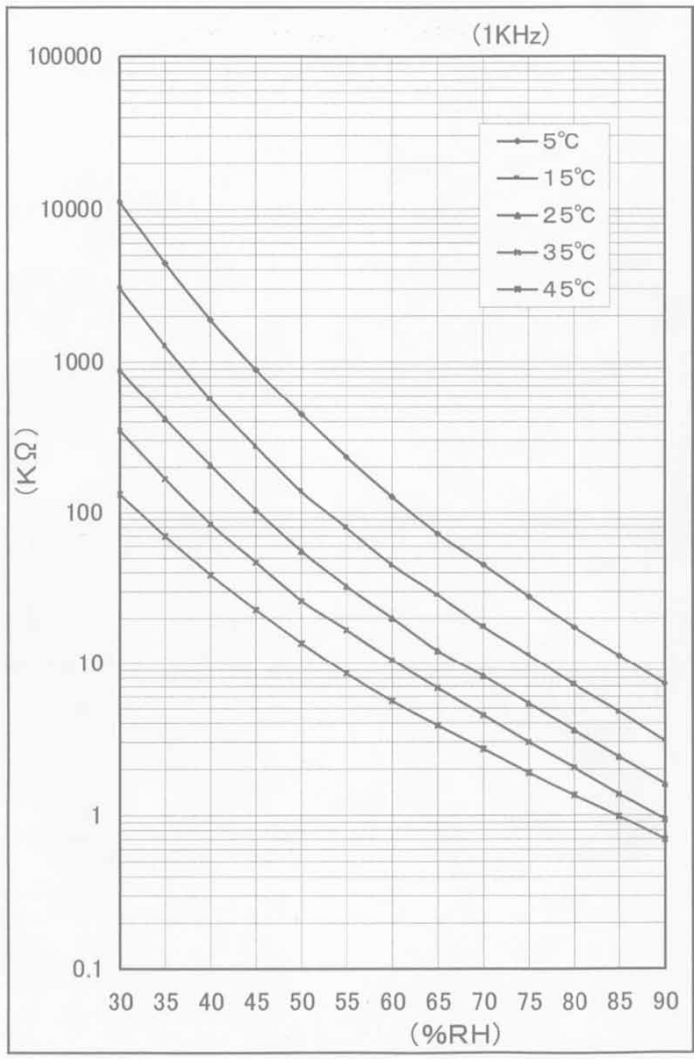
Characteristics of Humidity Sensor

- Part name : Humidity sensor
- Type name : HS-30P
- Storage temperature : -20~70 °C
- Storage humidity : 20~90 %RH (Without condensation)
- Operating humidity range : 20~90 %RH (Do not let it have dewdrops)
- Operating temperature range : -20~60 °C
- Rated working voltage : AC 1 V (50Hz~1KHz)
- Rated power : 0.3 mW
- Nominal impedance value : 55 kΩ (25°C, 50%RH)
- Tolerance on impedance value : Min 32.3kΩ / Max 99.7 kΩ
- Typical sensitive characteristics : shown in Figure 1
- Typical response characteristics : shown in Figure 2
- Dimensions : shown in Figure 3
- Reliability (Impedance value change as relative humidity at 25°C, 50%RH)
  - Dry heat storage : <±5 %RH (70°C, 1000 hr.)
  - Cold storage : <±5 %RH (-25°C, 1000 hr.)
  - Damp heat storage : <±5 %RH (60°C±5°C, 90~95%RH, 1000 hr.)
  - Heat cycle test : <±5 %RH (-25°C~70°C, 500 cycles)
  - Low humidity storage : <±5 %RH (25°C, 20 %RH, 1000 hr.)

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HS30P Humidity Sensor Specifications

Figure 1 : Typical Sensitive Characterists

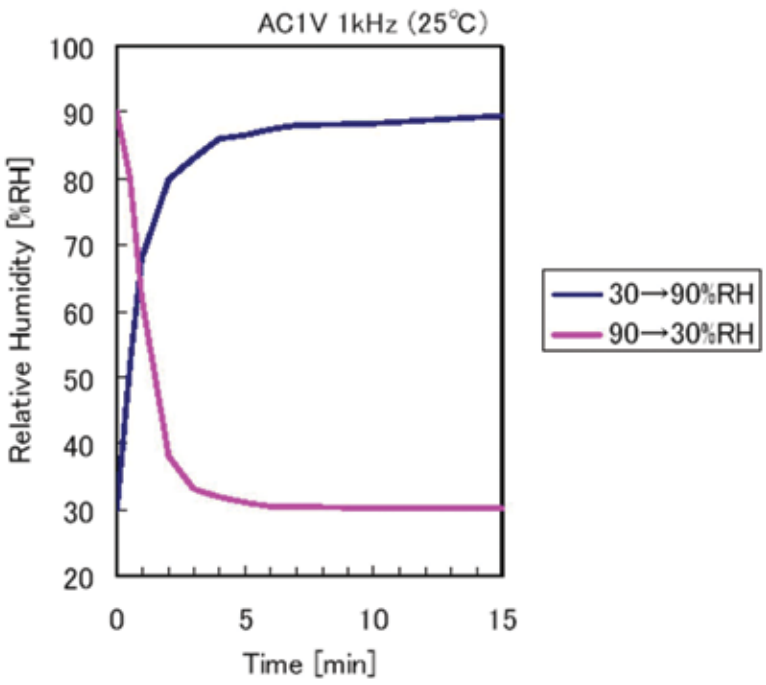


(Unit : Kohm)

%RH / ℃	30	40	50	60	70	80	90
5	11300	1980	460	138	48	17.8	4.5
15	3380	620	155	51	19.5	8	3.4
25	1020	215	62	22	8.6	3.6	1.6
35	360	83	27	9.9	4.2	1.9	0.9
45	150	36	12.9	5.2	2.3	1.1	0.5

HS30P Humidity Sensor Specifications

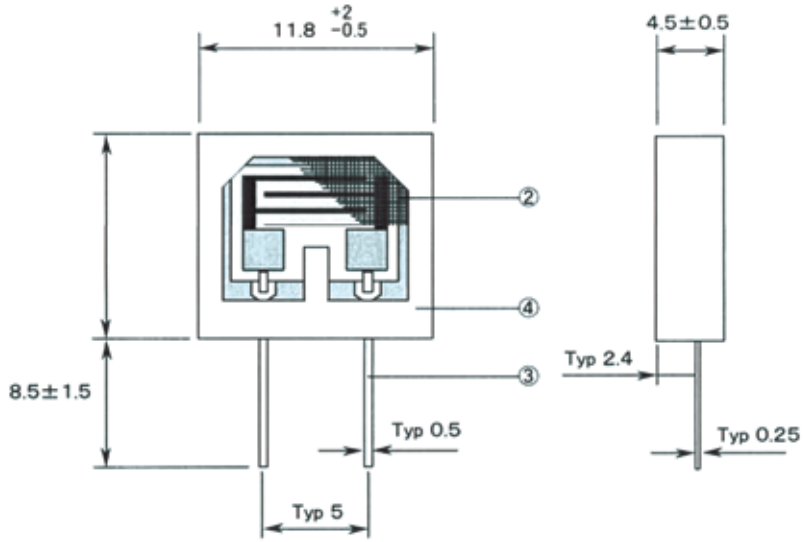
Figure 2 : Typical Response



Recommended Handling Practices:

- Use only within specified conditions.
- Do not disassemble or change any parts.
- Do not touch sensor element.
- Do not apply any direct current to the sensor.
- Do not touch the film and the surface of the sensor.
- In use and stock, freezing, dust, mist, oil, alcohol, corrosive gases or any other dirty/anomalous ambient may cause degradation of the sensor's characteristics.
- Protect the sensor film from flux/fume and high temperature during the soldering.
- Do not put sensor in water.

Figure 3 : Dimensions (Unit : mm)



No	Part Name	Material
1	Humidity Sensor	HS-30P
2	Filter	Mesh
3	Lead	PBR
4	Case	Polypropylene (Color : White)

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