



DATE :

**SPECIFICATION**  
**of Humidity sensor, HS-15SP**



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**Model : HS-15SP**

**REVISION : 01**

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1. SCOPE

This specifications applies to the HUMIDITY SENSOR HS15SP.

2. CHARACTERISTICS OF HUMIDITY SENSOR

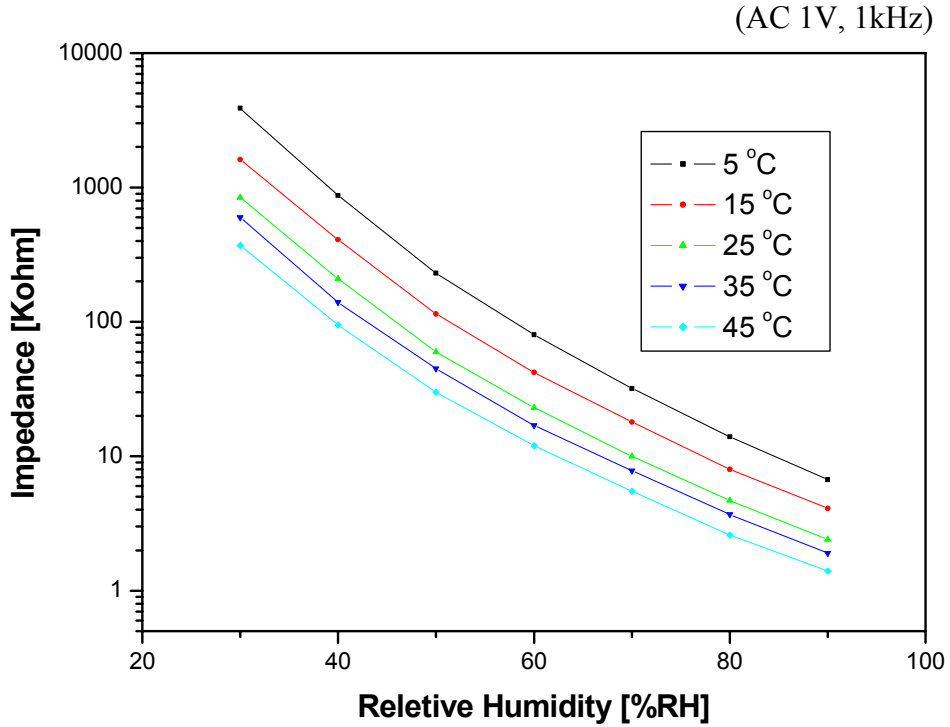
- 1.Part name : Humidity sensor
- 2.Type name : HS15SP
- 3.Storage temperature range : 0~50 °C
- 4.Storage humidity range : 10~100%RH (Without condensation)
- 5.Operating humidity range : 20~100%RH (Without condensation)
- 6.Operating temperature range : 0~50 °C
- 7.Rated working voltage : AC 1 V (50Hz~1KHz)
- 8.Rated power : 0.3 mW
- 9.Nominal impedance value : 60 kΩ ( 25°C, 50%RH)
- 10.Tolerance on impedance value : 60 ±30 kΩ
- 11.Typical sensitive characteristics : Shown in Fig.1
- 12.Typical response characteristics : Shown in Fig.2
- 13.Dimensions : Shown in Fig.3
- 14.Reliability(Impedance value change as relative humidity at 25°C, 50%RH)
  - 14-1 Dry heat storage : <±5 %RH ( 85 °C, 1000 hr.)
  - 14-2 Cold storage : <±5 %RH (-40 °C, 1000 hr.)
  - 14-3 Damp heat storage : <±5 %RH ( 40 °C, 90 %RH, 1000 hr.)
  - 14-4 Low humidity storage : <±5 %RH ( 25 °C, 20 %RH, 1000 hr.)
  - 14-5 Heat cycle test : <±5 %RH (-40 °C ~ +85 °C, 100 cycles)

3. NOTES

- 1.Don't apply any direct current to the sensor.
- 2.Don't touch the film and the surface of the sensor.
- 3.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.
- 4.Protect the sensor film from flux/fume and high temperature during the soldering.
- 5.Don't put sensor in water.



Fig. 1 Typical Humidity Curve



(Unit : Kohm)

%RH \ °C	30	40	50	60	70	80	90
5	3900	870	230	80	32	14	6.7
15	1610	410	115	42	18	8.0	4.1
25	840	210	60	23	10	4.7	2.4
35	600	140	45	17	7.8	3.7	1.9
45	370	95	30	12	5.5	2.6	1.4



Fig 2. Typical Response

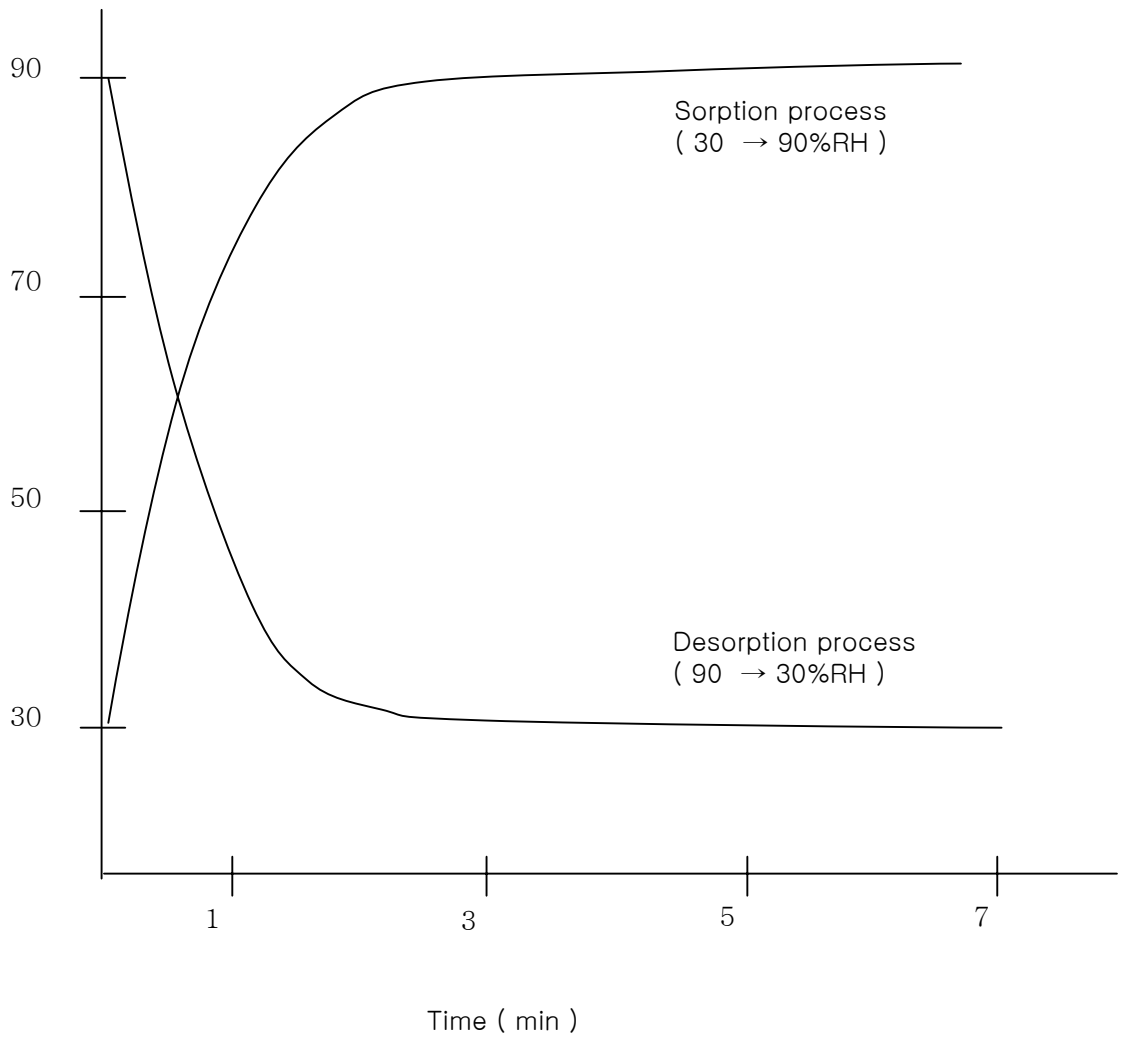
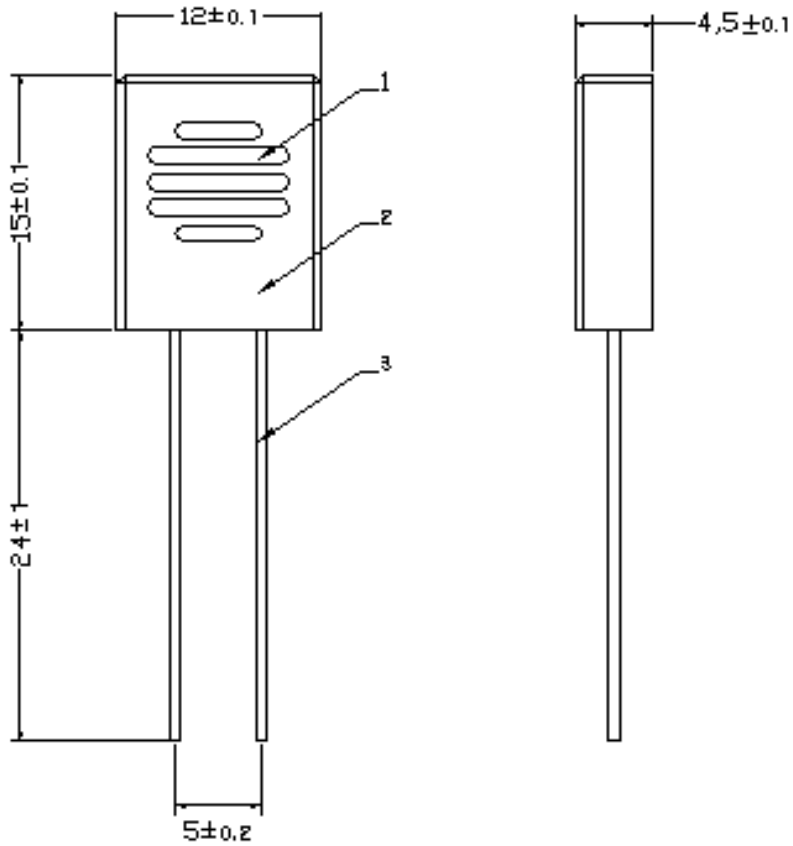




Fig. 3 Dimension (unit : mm)



No	Part Name	Material
1	Filter	
2	Case	ABS (Color : Light Blue)
3	Lead Wire	Sn-Pb Plated Cu wire, $\phi 0.6$ mm