

Sencera Co. Ltd.

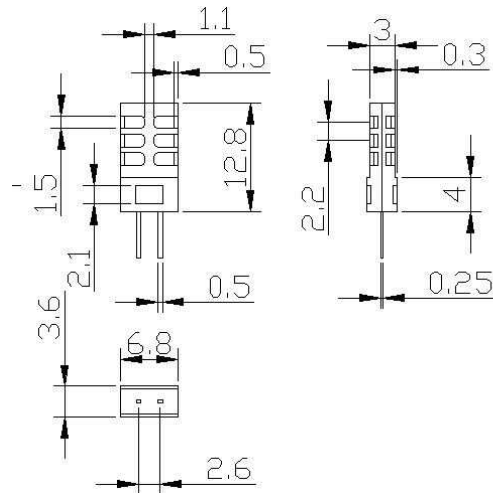
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9F-5, No. 26, Sec. 3, Jan-Ai Road, Taipei, Taiwan, ROC. <http://www.sensorelement.com>

H25K5A resistance humidity sensor specification

Applications

- Humidity detecting.
- Humidifier, dehumidifier
- Hygrometer,
- Humidity controller.

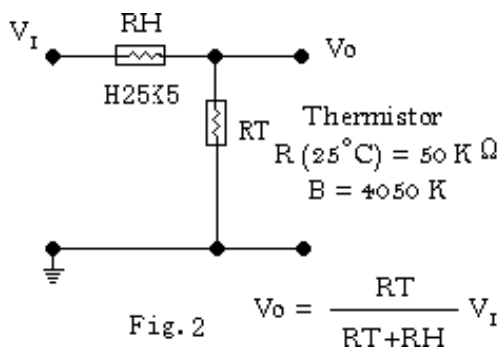


Electric characteristics

Rated voltage	DC 1~10V Or AC 1Vrms (AC0.26mW)
Operating temp. range	0°C ~ +60°C
Recommended driving Freq.	1 KHz
Operating humidity range	20~ 90%RH
Storage temp. range	-20°C ~ +85°C
Storage humidity range	90% RH Max.
Standard resistance	31KΩ (20-50Kohm) at 25°C, 60% RH, 1KHz
Response time	Max. 60 second.
Accuracy	±5%RH at 25°C, 60% RH
Hysteresis	3%RH Max. (when 40%RH change to 80%RH)

Soldering request: Not over 3 seconds in the solder tank of 250±5°C and can not immersed the Lead into the solder tank over 3mm.

Fig. 2: H25K5 Reference circuit



Sensor resistance table (unit:K Ω) At 1 KHz, Voltage 1Vrms.

	0°C	5°C	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C
20%RH				21000	13500	9800	8000	6300	4600	3800	3200
25%RH		19800	16000	10500	6700	4803	3900	3100	2300	1850	1550
30%RH	12000	9800	7200	5100	3300	2500	2000	1500	1100	900	750
35%RH	5200	4700	3200	2350	1800	1300	980	750	575	430	350
40%RH	2800	2000	1400	1050	840	630	470	385	282	210	170
45%RH	720	510	386	287	216	166	131	104	80	66	51
50%RH	384	271	211	159	123	95	77	63	52	45	38
55%RH	200	149	118	91	70	55	44	38	32	30	24
60%RH	108	82	64	51	40	31	25	21	17	14	12
65%RH	64	48	38	31	25	20	17	13	11	9	8
70%RH	38	29	24	19	16	13	10.5	9	8.2	7.1	6.0
75%RH	23	18	15	12	10	8.5	7.2	6.4	5.8	5.0	4.1
80%RH	16	12	10.2	8.1	7.2	5.7	5.0	4.4	4.0	3.3	2.9
85%RH	10.2	8.2	6.9	5.5	4.7	4.0	3.6	3.2	2.9	2.4	2.0
90%RH	6.9	5.4	4.7	4.1	3.2	2.8	2.5	2.3	2.1	1.8	1.5

Issue on 20MAY02