

DATE : \_\_\_\_\_

# SPECIFICATION

## of Humidity sensor unit, HU1030NA

Revision	Contents	Date	Originator	Approved
Rev.0	Initial Release	2010. 11	Yongnam Seo	Soo-tae Park

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**1. SCOPE**

This specification applies to the Humidity sensor unit HU30series.

**2. PRODUCT NAME AND PART NAME**

Part Name : Humidity sensor unit

Type Name : HU1030NA

**3. MAXIMUM RANGE**

Items	Type name
	HU1030NA
Maximum rated voltage	DC 7V
Storage temperature range	0 ~ 50℃
Storage humidity range	20 ~ 90 %RH (Without condensation)

**4. SPECIFICATION**

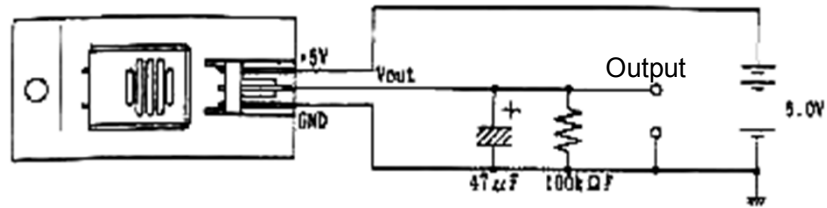
Items	Type name
	HU1030NA
Humidity sensor type	Polymer Humidity Sensor HS-30P
Maximum current	≤ 2mA at 5.0V
Output voltage range (DC)	1.0 ~ 3.0V
Output impedance	~ 2.5 kΩ
Accuracy (Humidity calibration)	≤ ± 5%RH at 25℃, 25 ~ 90%RH, at 5.0V ≤ ± 10%RH at 5℃~45℃, 20 ~ 100%RH, at 5.0V ※ Output Voltage(V) = 0.02 × H+1 (H: Relative Humidity %RH)
Operating temperature range	0 ~ 50℃
Operating humidity range	20 ~ 90%RH (Without condensation)
Response time (90%)	≤3 minute

**5. NORMAL OPERATING CONDITION**

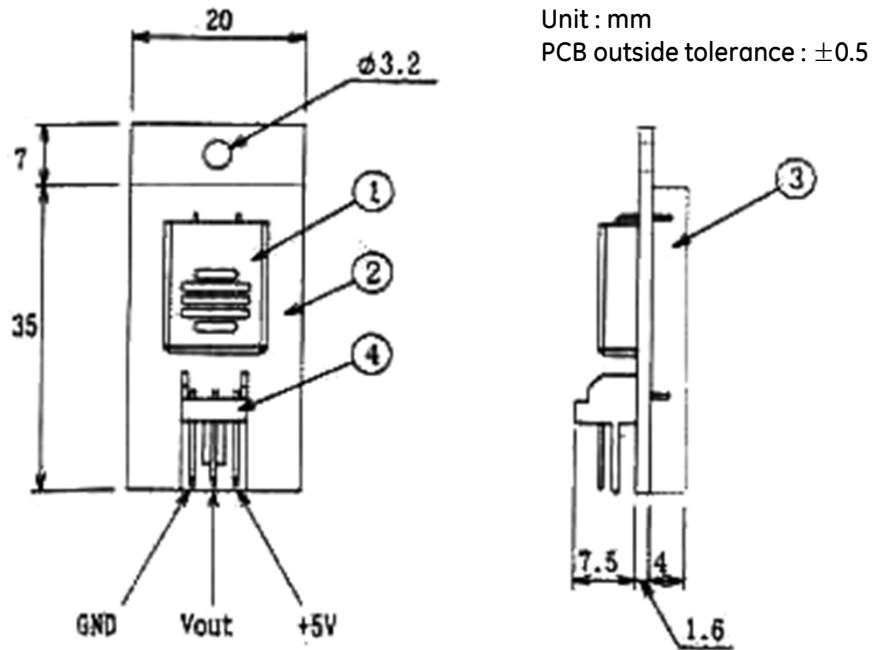
Items	Type name
	HU1030NA
Rated voltage	DC5±0.2V
Electrical capacitor	47μF/6.3V Electrical Capacitor (outside attachment)
Discharge resistor	100kΩF/0.25W Metal coated resistor (outside attachment)

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6. CIRCUITRY FOR INSPECTION



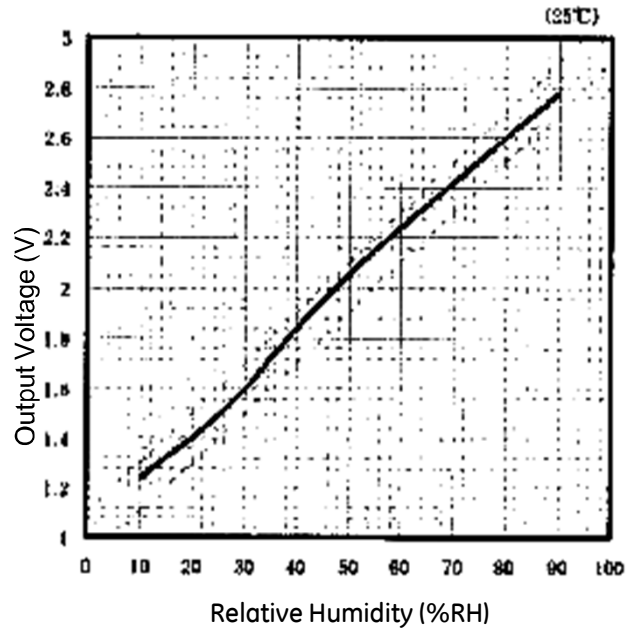
7. APPEARANCE



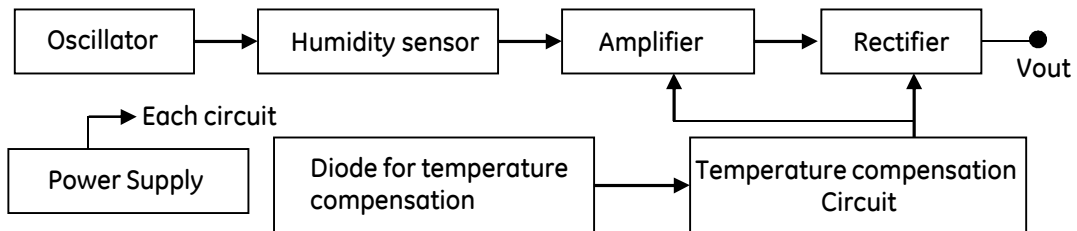
No.	Name	HU1030NA
①	Humidity sensor	HS30P
②	PCB	Material : CEM-3, t=1.6mm
③	Component mounting Area	Mounting Area for each component
④	Connector	AMP 171826-3 2.5mm pitch, 3P

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**8. OUTPUT CHARACTERISTICS**



**9. BLOCK DIAGRAM**



**10. NOTES**

- 1) Electrical capacitor and discharge resistor should be connected
- 2) Do not use this product below 0°C
- 3) Do not use this product in organic solvent, corrosive gas and other gases environment.
- 4) IF this product is not used at standard atmosphere pressure, Accuracy cannot be guaranteed.