**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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| Model : HU1030NA | REVISION : 00 | PAGE 1 / 3 |
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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<br>(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<br>(Humidity calibration) | ≤ ± 5%RH at 25℃, 25 ~ 90%RH, at 5.0V<br>≤ ±10%RH at 5℃~45℃, 20 ~ 100%RH, at 5.0V<br>※ Output Voltage(V) = 0.02 X H+1 (H: Relative Humidity %RH) |
| Operating temperature range | 0 ~ 50℃ |
| Operating humidity range | 20 ~ 90%RH<br>(Without condensation) |
| Response time (90%) | ≤3 minute |

## 5. NORMAL OPERATING CONDITION

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

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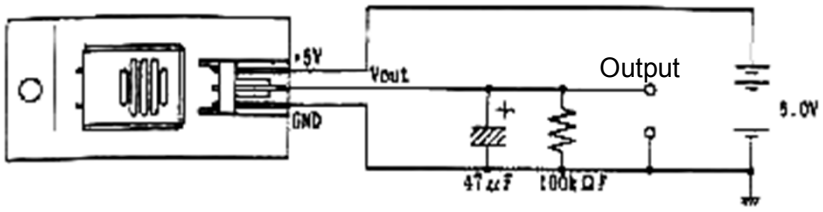
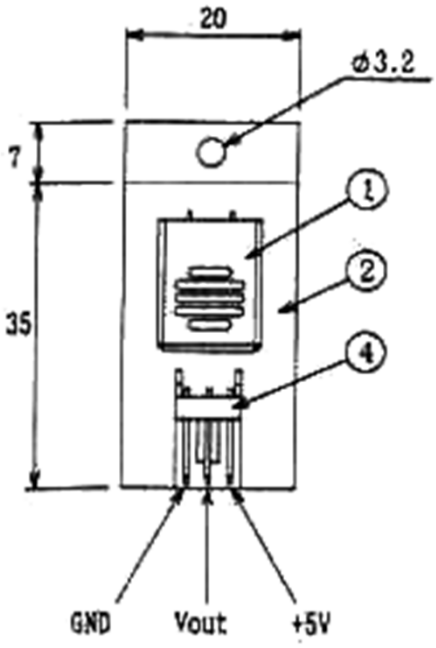
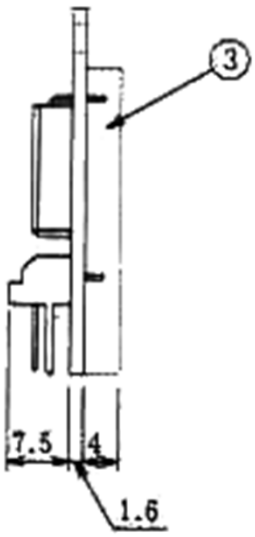
## 6. CIRCUITRY FOR INSPECTION




## 7. APPEARANCE

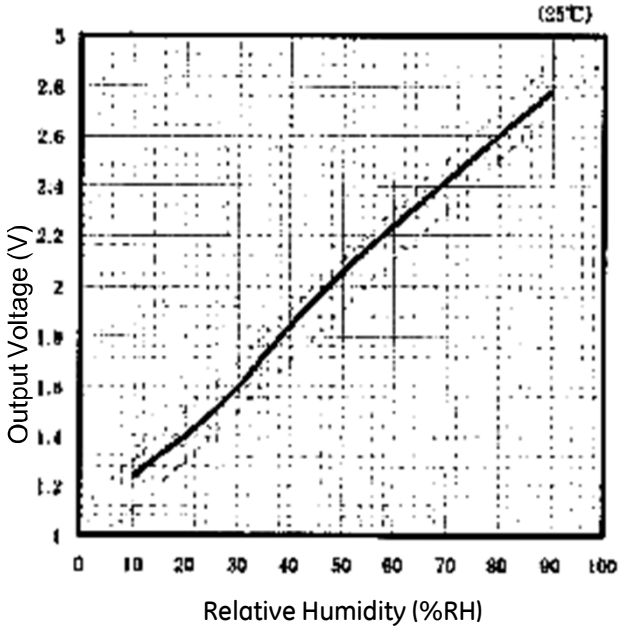



Unit : mm
PCB outside tolerance : ±0.5

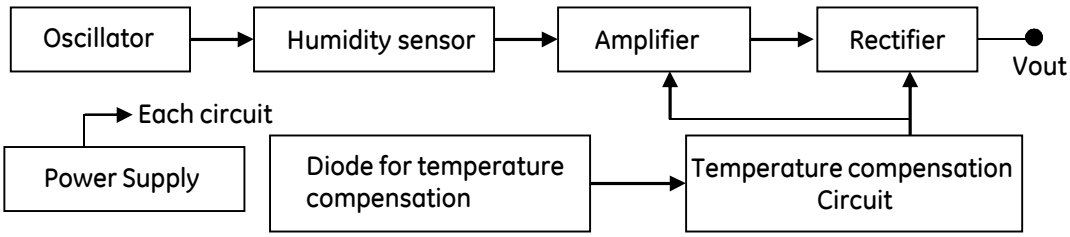



| No. | Name | HU1030NA |
|---|---|---|
| ① | Humidity sensor | HS30P |
| ② | PCB | Material : CEM-3, t=1.6mm |
| ③ | Component mounting Area | Mounting Area for each component |
| ④ | Connector | AMP 171826-3 2.5mm pitch, 3P |

## 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℃
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.