

# Home Appliances

## Air Conditioning

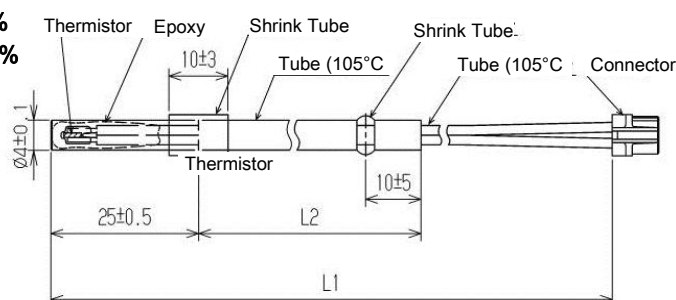
### ⑰ Copper Pipe Sensor



Zero Power Resistance :  $R_{55} = 14.05k\Omega \pm 3\%$   
 B value :  $B_{25/50} = 4120K \pm 2\%$   
 Temperature range :  $-20^{\circ}C - 80^{\circ}C$

- ◆ Thermal Time Constant: approx. 8 sec. (in stirred water)
- ◆ Dielectric Strength Voltage: AC 2200V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +

**Features:** A temperature sensor that is inserted into a copper pipe and can be used for a wide variety of purposes.



Unit: mm

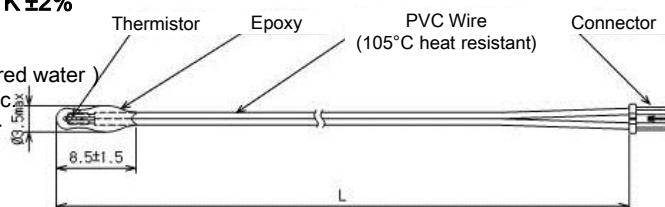
### ⑱ Dip Sensor



Zero Power Resistance:  $R_{25} = 10.0k\Omega \pm 3\%$   
 B value :  $B_{25/50} = 3950K \pm 2\%$   
 Temperature range :  $-20^{\circ}C - 80^{\circ}C$

- ◆ Thermal Time Constant: ca. 5 sec. ( in stirred water )
- ◆ Dielectric Strength Voltage: AC 2200V 1sec
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +

**Features:** A temperature sensor that has been dipped in epoxy resin and optimized for measuring room temperature.



Unit: mm

## Refrigerator

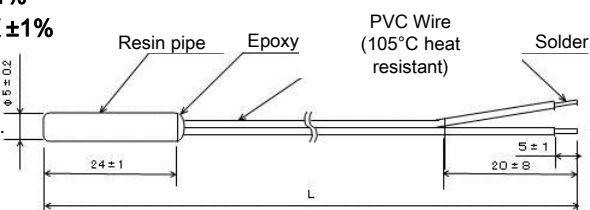
### ⑲ Resin Pipe Sensor



Zero Power Resistance:  $R_{25} = 10.0k\Omega \pm 1\%$   
 B value :  $B_{25/85} = 3435K \pm 1\%$   
 Temperature range :  $-30^{\circ}C - 90^{\circ}C$

- ◆ Thermal Time Constant: approx. 20 sec.
- ◆ Dielectric Strength Voltage: AC 1800V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +

**Features:** A temperature sensor in a resin pipe that allows accurate measurement of low temperatures.

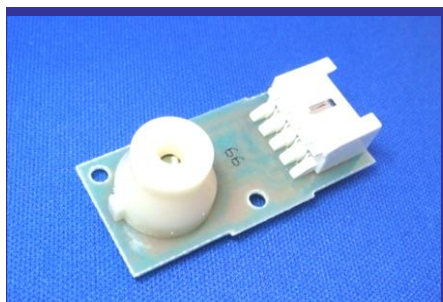


Unit: mm

### ⑳ Thermopile Module

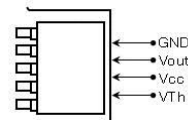
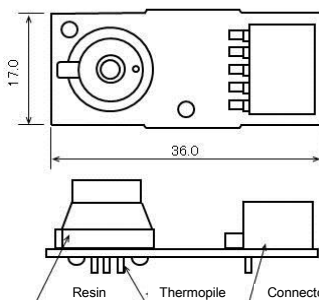
**Non Contact**

**Features:** A module version of the infrared based Thermopile non contact Sensor.



Measured Temperature:  $0^{\circ}C \pm 3.0^{\circ}C$   
 Output Voltage :  $0.547V - 3.453V$   
 Measuring temp. range:  $-35^{\circ}C - 35^{\circ}C$   
 Temperature range :  $-35^{\circ}C - 35^{\circ}C$

- ◆ Response : approx. 10ms
- ◆ Angle : type55
- ◆ Rated voltage : +5.5V



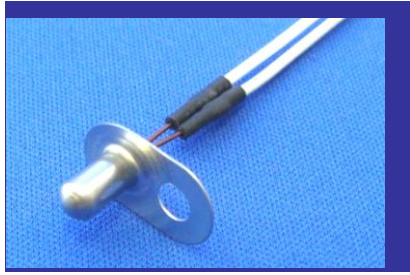
Unit: mm

# Home Appliances

## Microwave Oven

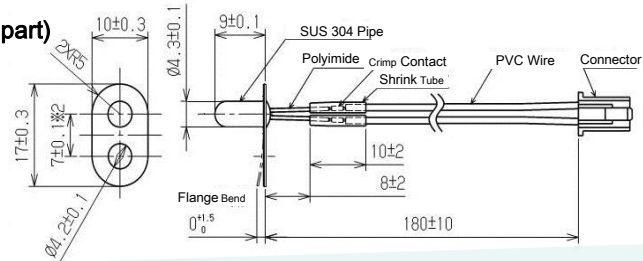
### ① Flange Pipe Sensor

**Features:** Easy to mount highly heat resistant temperature sensor with integrated flange.



Zero Power Resist.:  $R_{50} = 4.367k\Omega \pm 5\%$   
 B value :  $B_{0/100} = 3450K \pm 3\%$   
 Temperature range:  $-30^{\circ}C - 180^{\circ}C$  (Sensing part)

- ◆ Thermal Time Constant: approx. 80 sec.
- ◆ Dielectric Strength Voltage: AC 1200V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +



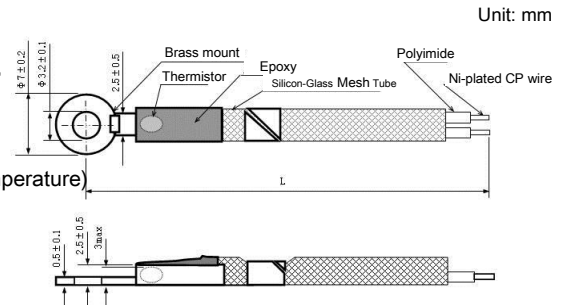
### ② Screw Mount Sensor

**Features:** A highly heat resistant screw mount type temperature sensor with a metal terminal part.



Zero Power Resistance:  $R_{75} = 7.241k\Omega \pm 7\%$   
 B value :  $B_{0/100} = 3970K \pm 2\%$   
 Temperature range :  $-20^{\circ}C - 200^{\circ}C$

- ◆ Thermal Time Constant: approx. 9 sec. (room temperature)
- ◆ Dielectric Strength Voltage: AC 1200V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +



## Water Heater / Warm Water Toilet Seat

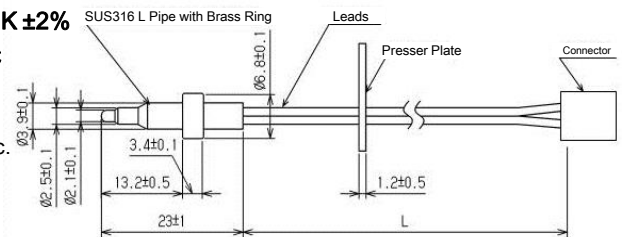
### ③ SUS 3 level Pipe Sensor

**Features:** A temperature sensor optimized for water temperature measurement with thin SUS Pipe terminal for high response speed.



Zero Power Resistance:  $R_{50} = 17.60k\Omega \pm 3\%$   
 B value :  $B_{0/100} = 3970K \pm 2\%$   
 Temperature range  $\times 1$  :  $-20^{\circ}C - 120^{\circ}C$

- ◆ Thermal Time Constant: under 1 sec. (in stirred water)
- ◆ Dielectric Strength Voltage: AC 1200V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +



$\times 1$ : without connector

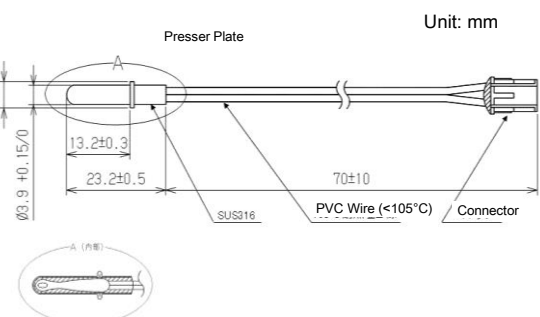
### ④ SUS Pipe Sensor

**Features:** A temperature sensor optimized for water temperature measurement that is inserted into an SUS Pipe.



Zero Power Resistance:  $R_{40} = 26.06k\Omega \pm 3\%$   
 B value :  $B_{0/100} = 3970K \pm 2\%$   
 Temperature range :  $-20^{\circ}C - 80^{\circ}C$

- ◆ Thermal Time Constant: ca. 3.6 sec. (in stirred water)
- ◆ Dielectric Strength Voltage: AC 1500V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +



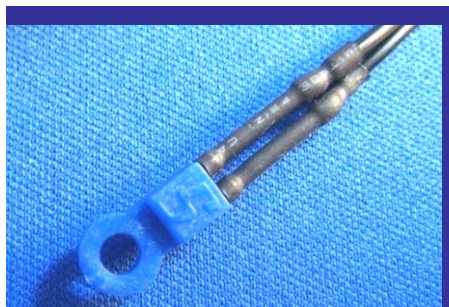
# Home Appliances

## Power Conditioner

### ⑤ Screw Mount Sensor

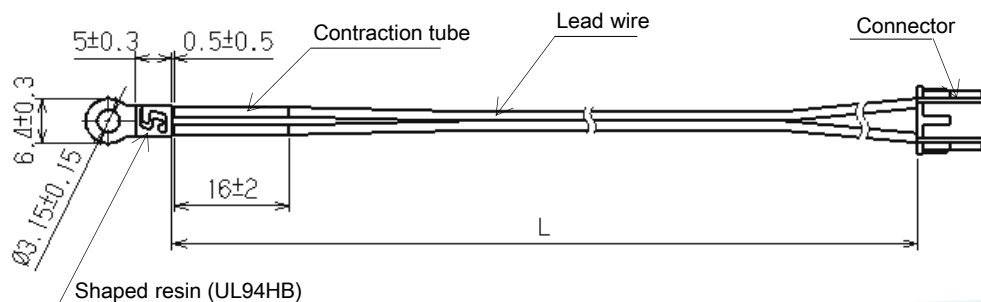
Zero Power Resistance :  $R_{25} = 20.0k\Omega \pm 1\%$   
 B value :  $B_{25/85} = 4013K \pm 1\%$   
 Temperature range :  $-40^{\circ}C - 105^{\circ}C$

- ◆ Thermal Time Constant: approx. 80 sec.
- ◆ Dielectric Strength Voltage: AC 2400V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +



**Features: Formed resin screw mount type temperature sensor with excellent insulation.**

Unit: mm



## Rechargeable Battery

### ⑥ Dip Sensor (AR)

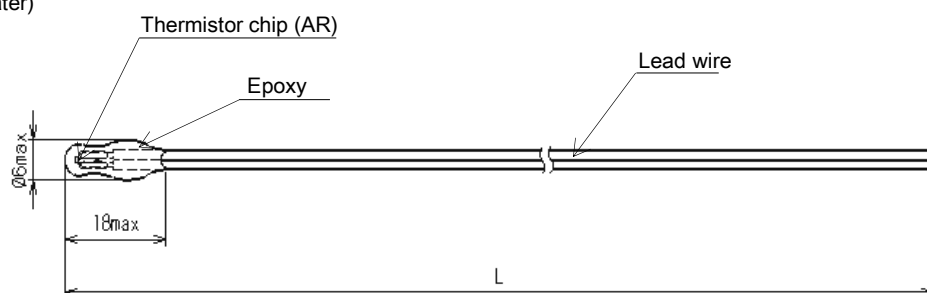
Zero Power Resistance :  $R_{55} = 14.05k\Omega \pm 1.5\%$   
 B value :  $B_{25/85} = 4120K \pm 1\%$   
 Temperature range :  $-30^{\circ}C - 105^{\circ}C$

- ◆ Thermal Time Constant: approx. 5 sec. (in stirred water)
- ◆ Dielectric Strength Voltage: AC 1800V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +



**Features: Highly reliable temperature sensor that has been dipped in epoxy resin.**

Unit: mm



## Fire Alarm

### ⑦ Dip Sensor

Zero Power Resistance :  $R_{25} = 226.0k\Omega \pm 3\%$   
 B value :  $B_{25/85} = 4021K \pm 1\%$   
 Temperature range :  $-40^{\circ}C - 100^{\circ}C$

- ◆ Thermal Time Constant: approx. 18 sec.
- ◆ Dielectric Strength Voltage: AC 600V 1 sec.
- ◆ Insulation Resistance: DC 500V 100M $\Omega$ +



**Features: Highly responsive temperature sensor that has been dipped in epoxy resin.**

Unit: mm

