

# GAS TEMPERATURE SENSOR

MODEL R000 (For laboratory use)

MODEL R030 (For general indoor use)

MODEL R011 (For general industrial use)

MODEL R031 (For general indoor use)



## MODEL R000

These small and light weight sensors are designed to measure temperature of gas/air, suitable for temperature measurement in thermostatic bath, drying chambers, artificial environment and climate chambers.

### GENERAL SPECIFICATIONS

#### NET-TUBE TYPE (R000-31, R000-31W)

Resistance element: Pt100, (3-wire type)  
 \*Please contact us for JPt100

Class: JIS B, A

Rated current: 2mA (Specify if 1mA)

Temperature range: -30 to 130°C (heat-conductive part is up to 60°C)

Material of protective tube: Nickel-plated brass (Removable)

Dimension of protective tube: 12mm x 100mm

Lead wire: Single element type.....  
 Vinyl coated 3-core copper lead wire, type WV38, outer diameter  $\phi$ 8mm, 3 meter length  
 (When specified heat-coated copper lead wire, silicon coated 3-core copper lead wire (180°C heat-resistant), type WS36, outer diameter  $\phi$ 6mm is used instead.)

Double element type.....  
 Vinyl coated 6-core copper lead wire, type WV61, outer diameter  $\phi$ 10mm, 3 meter length  
 (When specified heat-coated copper lead wire, silicon coated 6-core copper lead wire (180°C heat-resistant), type WS68, outer diameter  $\phi$ 8mm is used instead.)

Mounting: Wall mount

#### CLOSED-TUBE TYPE (R000-32, R000-32W)

Resistance element: Pt100, (3-wire type)  
 \*Please contact us for JPt100

Class: JIS B, A

Rated current: Pt100.....2mA (Specify if 1mA)

Temperature range: -50 to 150°C (heat-conductive part is up to 60°C)

Material of protective tube: SUS304

Dimension of protective tube:  $\phi$ 6mm x 100mm

Lead wire: Single element type.....  
 Vinyl coated 3-core copper lead wire, type WV38, outer diameter  $\phi$ 8mm, 3 meter length  
 (When specified heat-coated copper lead wire, silicon coated 3-core copper lead wire (180°C heat-resistant), type WS36, outer diameter  $\phi$ 6mm is used instead.)

Double element type.....  
 Vinyl coated 6-core copper lead wire, type WV61, outer diameter  $\phi$ 10mm, 3 meter length  
 (When specified heat-coated copper lead wire, silicon coated 6-core copper lead wire (180°C heat-resistant), type WS68, outer diameter  $\phi$ 8mm is used instead.)

Mounting: Wall mount

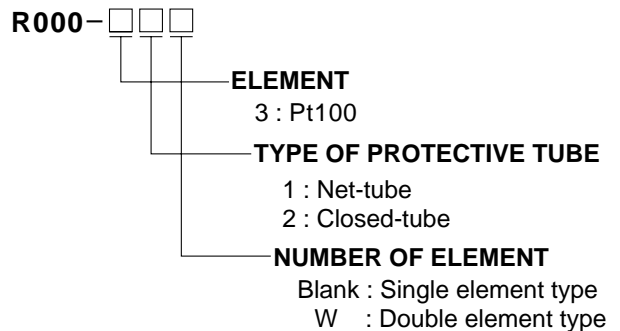
### RESPONSE TIME

In the air (50°C→20°C):  
 Net-tube type Approx.70 seconds  
 Closed-tube Approx.3 minutes  
 (Note: This response time means the time to reach 63.2% of the equilibrium value.)



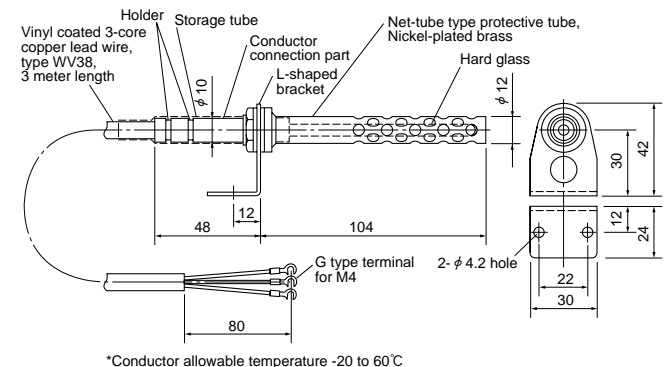
MODEL R000-31

### MODEL

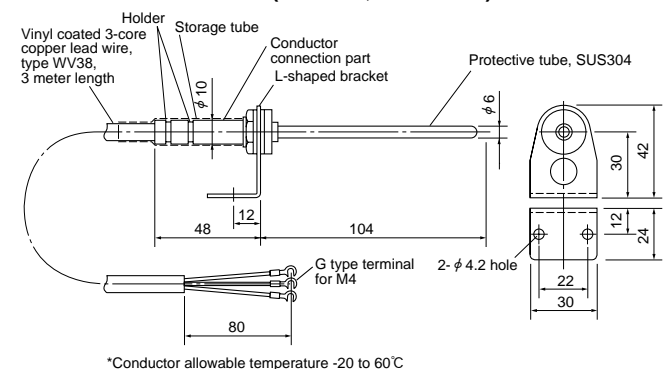


### EXTERNAL DIMENSIONS

#### NET-TUBE TYPE (R000-31, R000-31W)



#### CLOSED-TUBE TYPE (R000-32, R000-32W)



Unit : mm

# GAS TEMPERATURE SENSOR

## MODEL R011

These sensors are suitable for temperature management of industrial use at general production work room and warehouse.

### GENERAL SPECIFICATIONS

Resistance element: Pt100 (3-wire type)  
 \*Please contact us for JPt100  
 Class: JIS B, A  
 Rated current: 2mA (Specify if 1mA)  
 Temperature range: -20 to 60°C  
 Material of protective tube: SUS304  
 Dimension of protective tube:  $\phi 6\text{mm} \times 100\text{mm}$   
 Lead wire: Single element type.....  
                   Vinyl coated 3-core copper lead wire,  
                   type WV38, outer diameter  $\phi 8\text{mm}$ , 3  
                   meter length  
                   Double element type.....  
                   Vinyl coated 6-core copper lead wire,  
                   type WV61, outer diameter  $\phi 10\text{mm}$ , 3  
                   meter length  
 Mounting: Wall mount

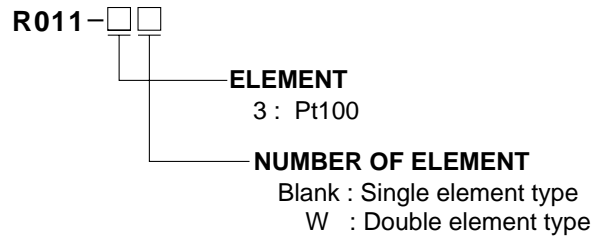
### RESPONSE TIME

In the air (50°C→20°C): Approx.50 seconds  
 (This response time means the time to reach 63.2% of the equilibrium value.)

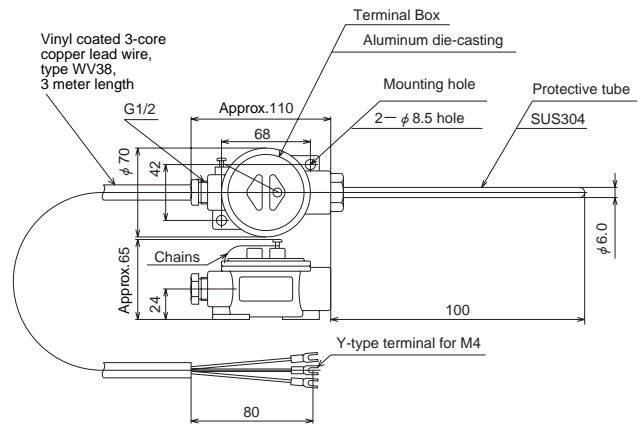


MODEL R011-1

### MODEL



### EXTERNAL DIMENSIONS



Unit : mm

## MODEL R030

These small, lightweight and high responses are designed to measure temperature of gas/air, suitable for temperature management at high humidity place or freezer compartment because of the waterproof structure.

### ■ GENERAL SPECIFICATIONS

Resistance element: Pt100 (3-wire type)  
 \*Please contact us for JPt100  
 Class: JIS B, A  
 Rated current: 2mA (Specify if 1mA)  
 Temperature range: -30 to 100°C  
 Material of protective tube: SUS304  
 Dimension of protective tube:  $\phi$ 2.5mm (0.2mm wall thickness)  
 Lead wire: Single element type.....  
                   Vinyl coated 3-core copper lead wire, type WV35, outer diameter  $\phi$ 5mm, 3 meter length  
                   Double element type.....  
                   Use 2 pcs. same wire of the above.  
 Mounting: Wall mount  
 Casing: Structure.....Drip-proof type  
           Material.....Heat-resistant ABS resin  
           Color.....Cream

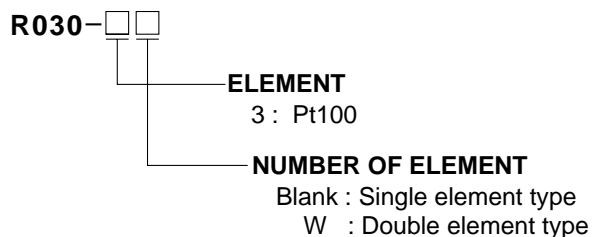
### ■ RESPONSE TIME

In the air (50°C→20°C): Approx.25 seconds  
 (This response time means the time to reach 63.2% of the equilibrium value.)

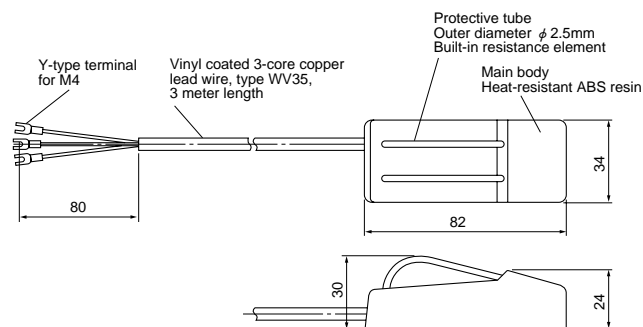


MODEL R030-3W

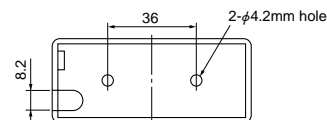
### ■ MODEL



### ■ EXTERNAL DIMENSIONS



### ■ MOUNTING FIGURE



Unit : mm

## MODEL R031

This is for general indoor use, suitable for room temperature measurement in relatively severe air conditioning management as pharmaceutical plant or blood storage center.

Since it has good response, the mounting has become easier to set up on the wall according to JIS standards. Thermo-plate type is available for to lessen the effect of wall surface temperature.

### GENERAL SPECIFICATIONS

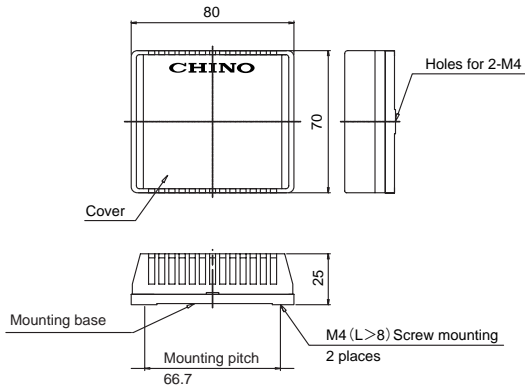
Resistance element: Pt100 (3-wire type)  
 Class: JIS A  
 Rated current: 1mA  
 Temperature range: -20 to 80°C  
 Casing: Natural draft type-heat-resistant ABS resin material (Color: Munsell N9)  
 Lead wire connection: Terminal connection (Please prepare the lead wire separately)  
 Mounting: Wall mount, mounting hole pitch 66.7mm (Correspond to JIS C 8340 standard product)  
 Complies with RoHS

### RESPONSE TIME

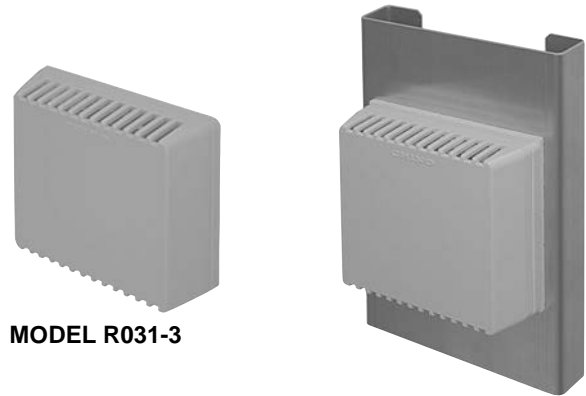
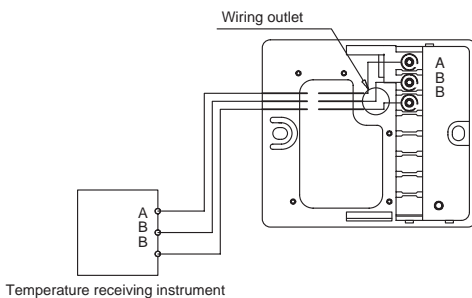
In the air (50°C→20°C): Approx.50 seconds  
 (This response time means the time to reach 63.2% of the equilibrium value.)

### EXTERNAL DIMENSIONS

#### R031-3



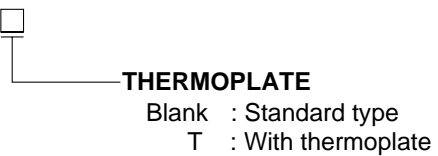
### TERMINAL ARRANGEMENT



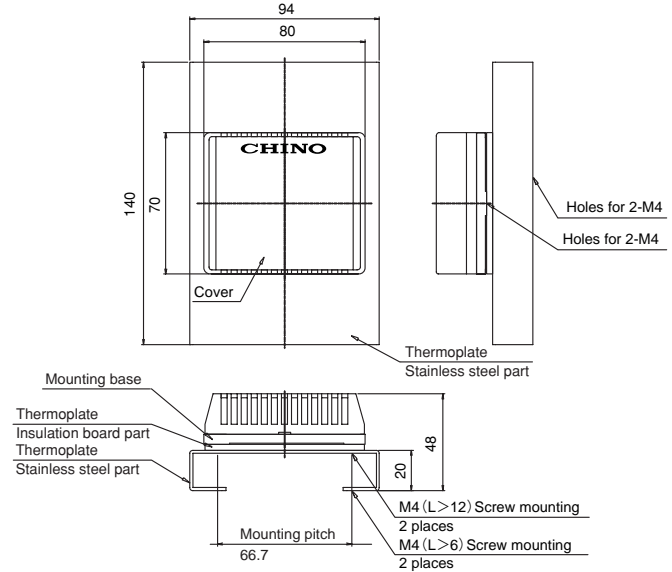
MODEL R031-3

MODEL R031-3T

### MODEL R031-3



#### R031-3T



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