

# Dishwasher & Dish Dryer Applications



## THINKING SENSOR

Dishwasher & Dish Dryer Applications

### Feature

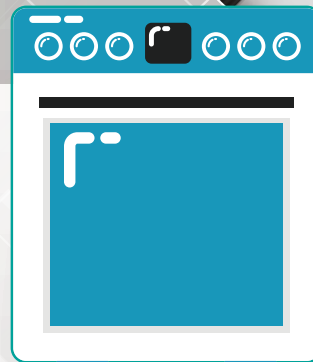
- ◆ Voltage withstand standard is increased, and the highest voltage is 3750V. The sensor is safer for long-term exposure to liquid-contacting environment.
- ◆ Screw-on type, metal case type, and plastic case type sensors are available, and the sensors are customizable.
- ◆ Various electrical characteristics are available for your choice.

### Function

- ◆ The sensor is installed next to heating pipe of dishwasher for water temperature detection
- ◆ The sensor is installed on heating element of dish dryer for temperature detection.

### Application

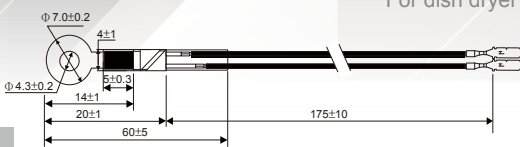
Dishwasher, dish dryer, etc.



### Screw-On Type

**Feature:** The sensor is water resistant and can be installed easily, and its highest operation temperature reaches 200°C. The sensor can be installed on detected objected for temperature detection.

**Application:** The sensor does not contact liquid and steam directly and is recommended for dry environment.



For dish dryer

**Component** | Sensing top (NTC chip+terminal+epoxy)+tube+terminal +lead wire+terminal

**Moisture Resistance** | 40°C 95% RH X 1000 hours

**Operation Temperature** | -30~200°C

**Insulation Test** | DC 500V 100MΩ(Min)

**R Value** | R100°C=3.3KΩ±2.5%

**B Value** | B25/100=3988K±1.5%

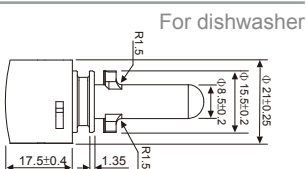
**Thermal Time Constant** | Around 30 seconds (heating board)

**Hi-Pot Test** | AC 1500V 10mA(Max)

### Plastic Case Type

**Feature:** Customizable structure of the sensor is for easy installation. In addition, the sensor withstands higher voltage for its better insulation and safety, but it takes more time to response.

**Application:** The sensor is generally installed in dishwasher and dish dryer.



For dishwasher

**Component** | Sensing top (NTC chip+plastic cap)+plug

**Moisture Resistance** | 40°C 95% RH X 1000 hours

**Operation Temperature** | 0~105°C

**Insulation Test** | DC 500V 100MΩ(Min)

**R Value** | R50°C=17KΩ±1.4%

**B Value** | B25/50=3935K±1.5%

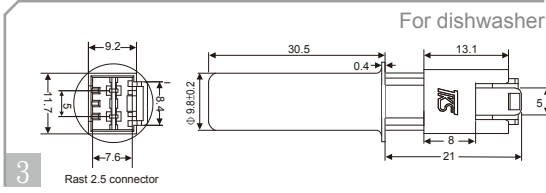
**Thermal Time Constant** | Around 60 seconds (in water)

**Hi-Pot Test** | AC 3750V 10mA(Max)

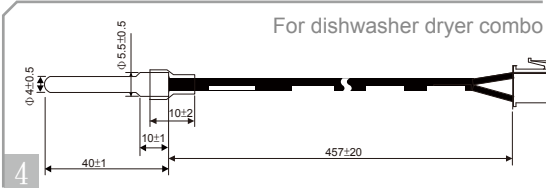
**Metal Case Type**

**Feature:** Stainless steel is anti-humid and anti-corrosive, and is mainly used in household cleaning appliances. In addition, voltage withstand standard is increased, and voltage of the sensor ranges from 1500V to 3750V.

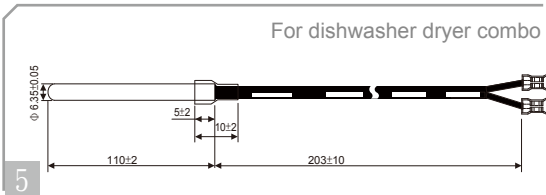
**Application:** The sensor is generally installed in dishwasher and dish dryer.



**Component** | Sensing top (NTC chip+stainless steel cap)+plug  
**Moisture Resistance** | 40°C 95% RH X 1000 hours  
**Operation Temperature** | 0~+200°C  
**Insulation Test** | DC 500V 100MΩ(Min)  
**R Value** | R25°C=10 KΩ±1%      **B Value** | B25/85=3975K±1.5%  
**Thermal Time Constant** | Around 20 seconds (in water)  
**Hi-Pot Test** | AC 3750V 10mA(Max)



**Component** | Sensing top (NTC chip+stainless steel cap)+tube +lead wire+terminal+housing  
**Moisture Resistance** | 40°C 95% RH X 1000 hours  
**Operation Temperature** | 0~+105°C  
**Insulation Test** | DC 500V 100MΩ(Min)  
**R Value** | R25°C=10KΩ±1%      **B Value** | B25/85=3435K±1%  
**Thermal Time Constant** | Around 5 seconds (in water)  
**Hi-Pot Test** | AC 1500V 10mA(Max)

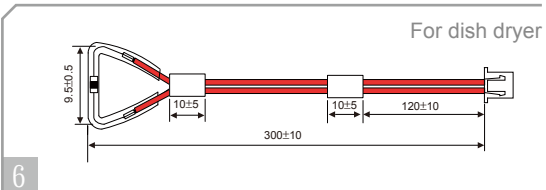


**Component** | Sensing top (NTC chip+stainless steel cap)+tube +lead wire+terminal  
**Moisture Resistance** | 40°C 95% RH X 1000 hours  
**Operation Temperature** | -40~+300°C  
**Insulation Test** | DC 500V 100MΩ(Min)  
**R Value** | R25°C=10KΩ±1%      **B Value** | B25/85=3435K±1%  
**Thermal Time Constant** | Around 20 seconds (in water)  
**Hi-Pot Test** | AC 1500V 10mA(Max)

**Epoxy Coating Type**

**Feature:** Structure of the sensor is simple, and it directly contact detected object and responds fast. The highest operation temperature of the sensor is 200°C.

**Application:** The sensor directly contacts detected object for temperature detection. In addition, the sensor does not contact liquid and steam directly and is recommended for dry environment.

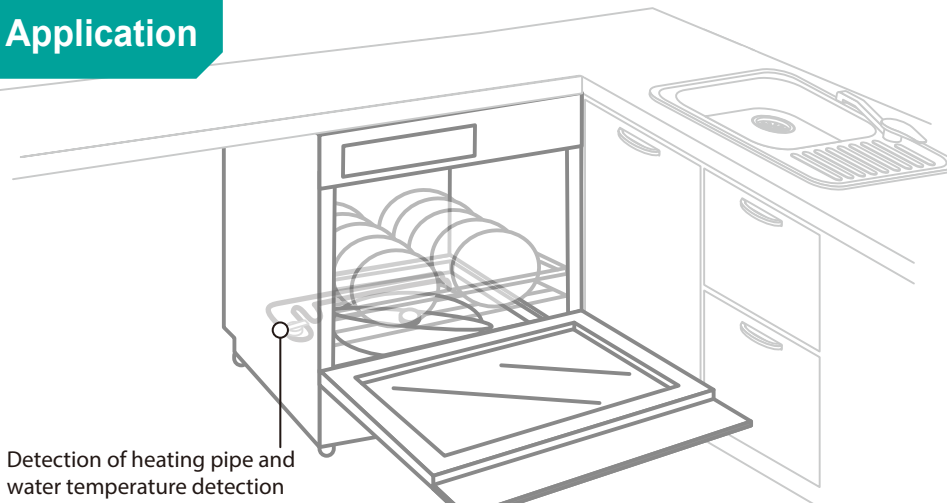


**Component** | Sensing top (NTC chip+terminal+tube)+lead wire +tube+terminal+housing  
**Moisture Resistance** | 40°C 95% RH X 1000 hours  
**Operation Temperature** | -40~+200°C  
**Insulation Test** | DC 500V 100MΩ(Min)  
**R Value** | R100°C=3.3KΩ±2.5%      **B Value** | B0/100=3970K±2%  
**Thermal Time Constant** | Around 15 seconds (in air)



- 1. Temperature sensor is customizable in accordance with customer's needs, and THINKING provides consulting services for sensor design.
- 2. All specifications are subject to change.
- 3. Please contact your sales representative if you have any questions.

**Product Application**



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