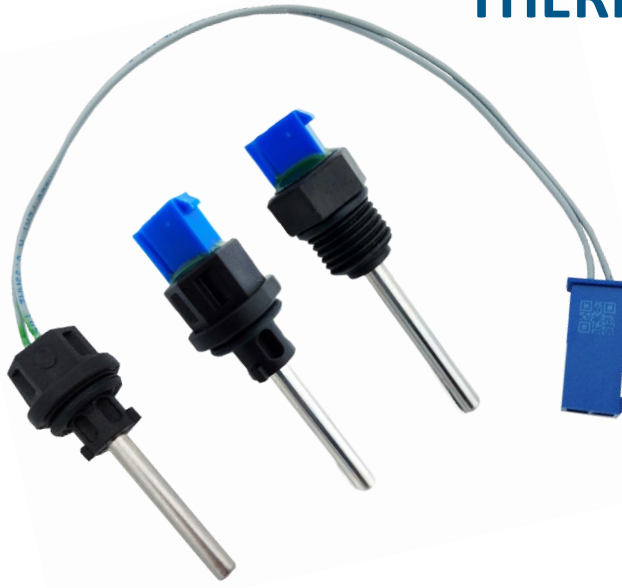




PRODUCT INTRODUCTION DOCUMENTS

FLUE GAS SENSOR & THERMAL CUT-OFF



GENERAL INFORMATION

This series of thermal products are safety products used in the flue gas outlet of combi products and produced in accordance with international standards to keep components safe when extreme temperatures occur. There are two series, one-time use (B-TC) that cuts the electrical current, and one that provides continuous temperature control (B-NTC). The body can be produced according to two different locking structures as insert type and screw type. The product connection structure can be differentiated according to customer demands. (For example cable addition, board type connector addition etc.)

FEATURES

B-NTC

- ❖ IEC/EN 60730-2-9 and IEC/EN 60730-1
- ❖ Protection Degree: IP 68
- ❖ Operating temperature: -40°C / 125°C
- ❖ Rated Voltage: 5V DC
- ❖ Rated Frequency: 50 Hz
- ❖ Certificated by TÜV Rheinland
- ❖ Insured by Zurich Sigorta

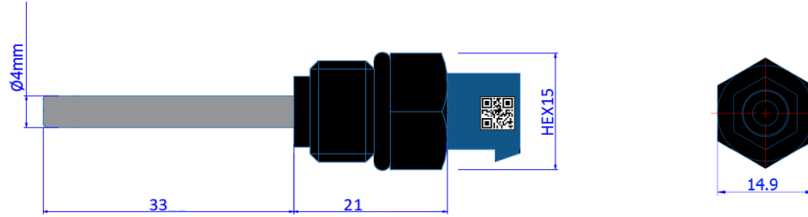
B-TC

- ❖ IEC/EN 60730-2-9 and IEC/EN 60730-1
- ❖ Protection Degree: IP 68
- ❖ Operating Temperature: -40°C / 125°C
- ❖ Rated Voltage: 24V DC
- ❖ Rated Frequency: 50 Hz
- ❖ Certificated by TÜV Rheinland
- ❖ Insured by Zurich Sigorta

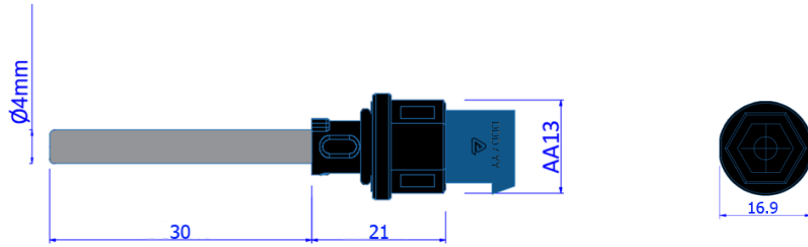
FLUE GAS SENSOR & THERMAL CUT-OFF

DIMENSIONS (mm)

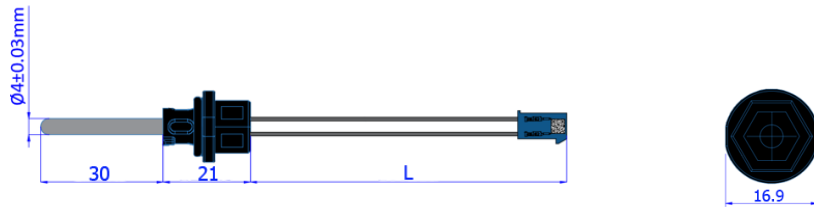
Screw Type



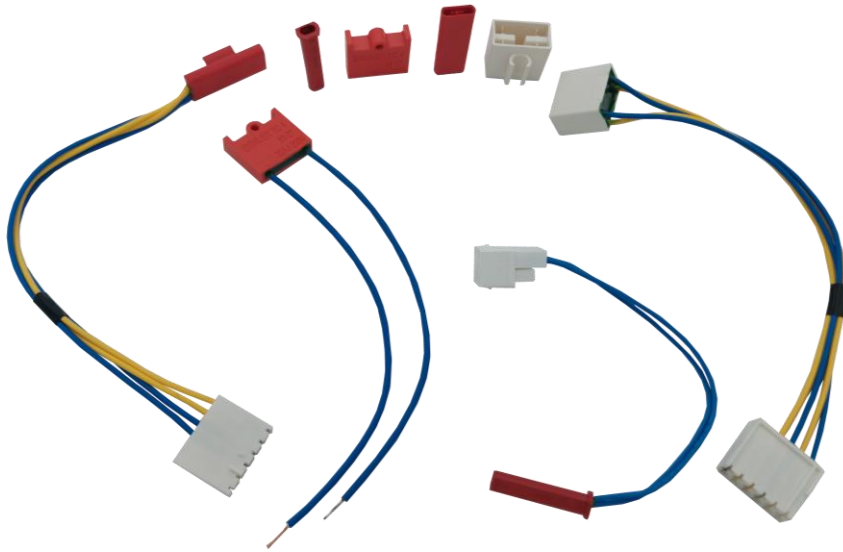
Insert Type



Cable Type



* Please contact us for different length and cable section requests.



GENERAL INFORMATION

They are safety products produced in accordance with international standards to keep components safe when extreme temperatures occur. It can be in a single-use structure that cuts the electrical current (TC series) or in a structure that allows it to work in the expected temperature range (TT series). It is possible in products where both structures are used at the same time. Product dimensions, components and specifications can be customized.

TC Series

When the ambient temperature reaches the value requested from customer for example $70^{\circ}\pm 2^{\circ}\text{C}$ the thermal cutoff , opens the circuit permanently

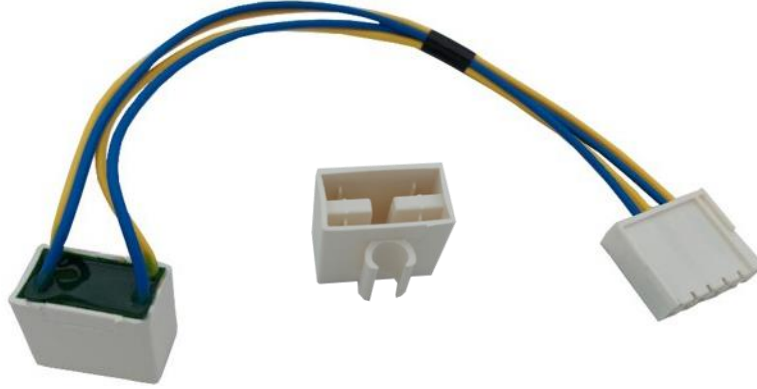
TT Series

The thermostat circuit , opens and closes the electrical circuit, according to the operating temperatures varying according to the thermostat type. It is widely used for application where the temperature is desired to be kept in a predefinite range. A thermal cut-off structure can also be added to this series.

FEATURES

- ❖ Rated Voltage 250V AC
- ❖ Customizable operating temperature for Thermal Cut-off (72°C , 77°C , 84°C , 91°C , 93°C or etc.)
- ❖ Standard products comply with GWT 750/850
- ❖ Customizable box structure and dimensions
- ❖ Rated Current 10A (TT1,TT2,TC1,TC2, TC3), 20A (TC4)
- ❖ Customizable operating temperature range for Thermal Switch ($-8^{\circ}\text{C}/+11^{\circ}\text{C}$, $30^{\circ}\text{C}/40^{\circ}\text{C}$, or etc.)
- ❖ IEC/EN 60335-2-24 and IEC 60691 Standard complies
- ❖ Certificated by TÜV Rheinland

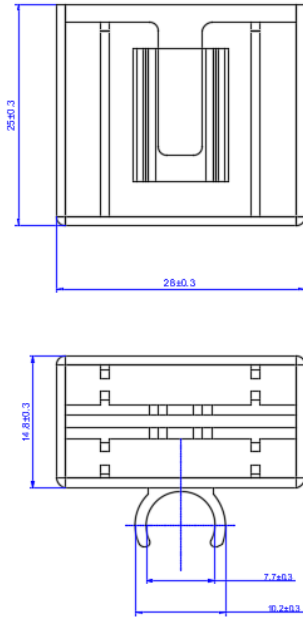
TC1 – SINGLE or DOUBLE THERMAL CUT-OFF



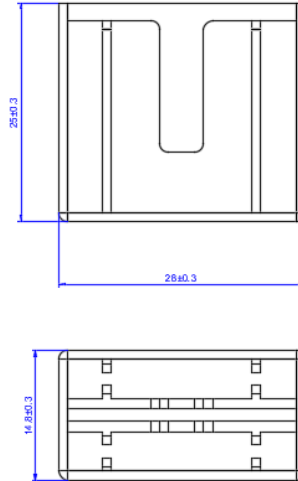
* The nail structure is optional, can be produced without nails and can also be produced in the desired nail size.

DIMENSIONS (mm)

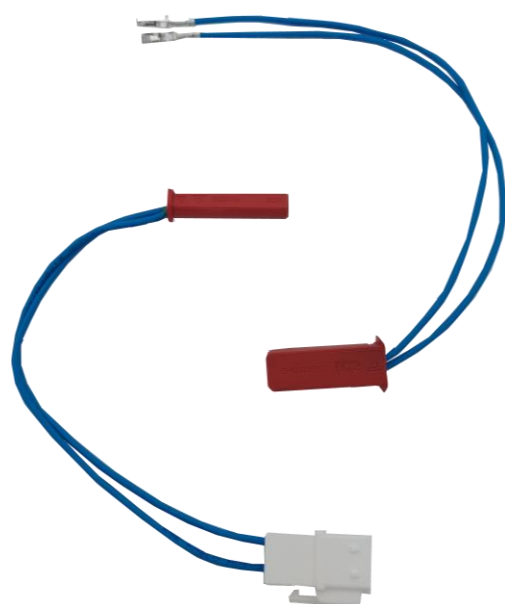
With Pipe Latch



Without Pipe Latch

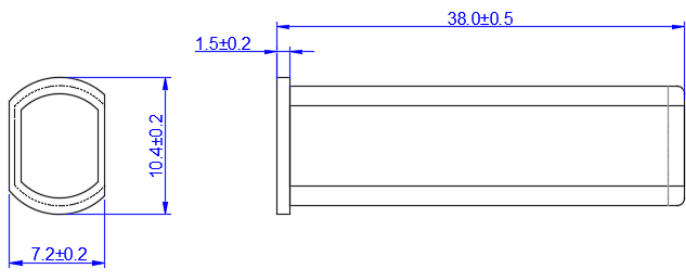


TC2 – THERMAL CUT-OFF

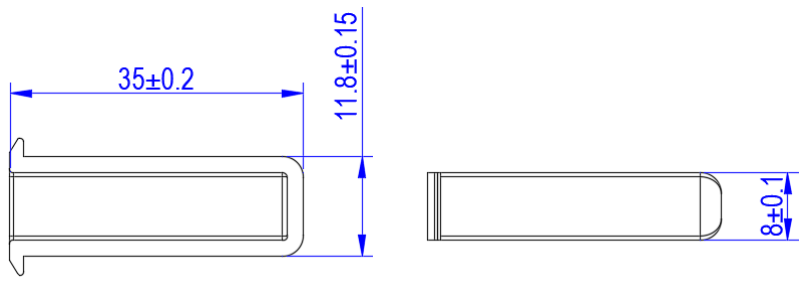


DIMENSIONS (mm)

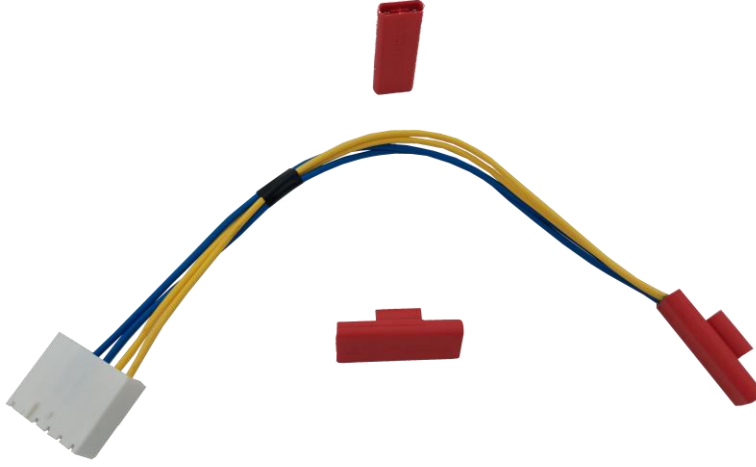
Type 1



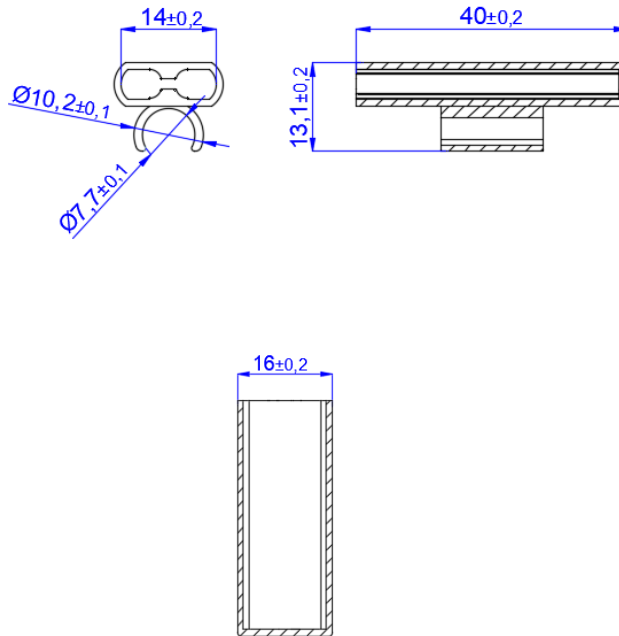
Type 2



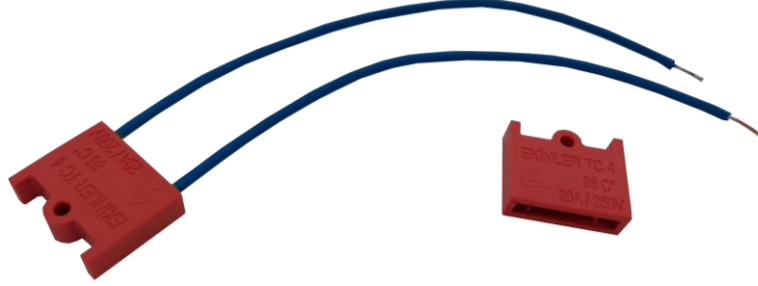
TC3 – SINGLE or DOUBLE THERMAL CUT-OFF



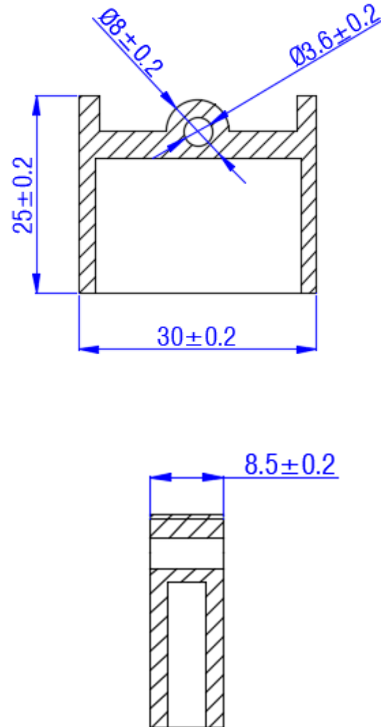
DIMENSIONS (mm)



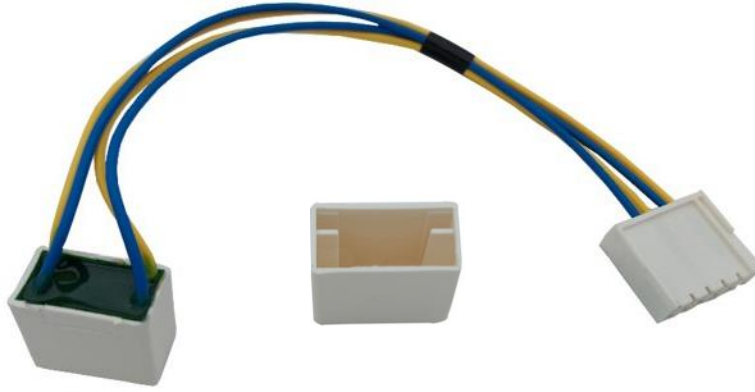
TC4 – THERMAL CUT-OFF



DIMENSIONS (mm)



TT1 – THERMOSTAT

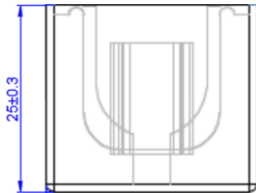
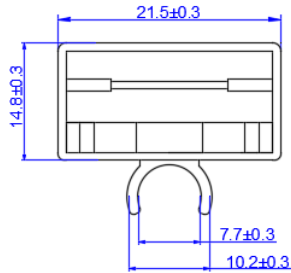


* A thermal fuse and A thermostat can be used simultaneously in the same structure.

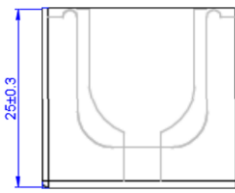
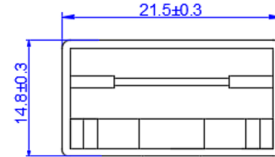
* The nail structure is optional, can be produced without nails and can also be produced in the desired nail size.

DIMENSIONS (mm)

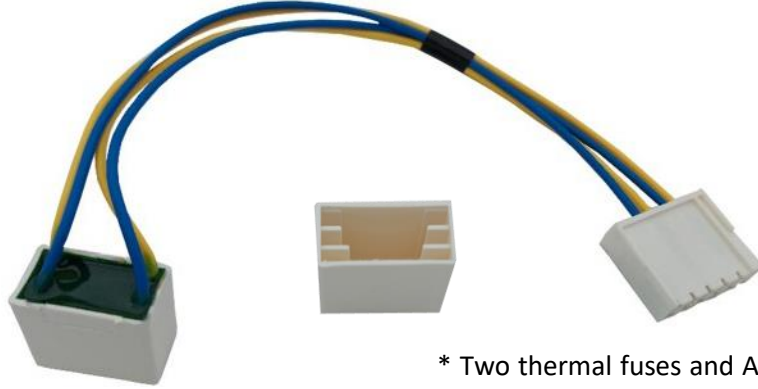
With Pipe Latch



Without Pipe Latch



TT2 – THERMOSTAT WITH DOUBLE THERMAL CUT-OFF

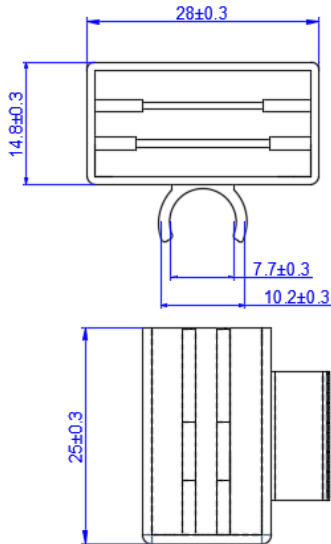


* Two thermal fuses and A thermostat can be used simultaneously in the same structure.

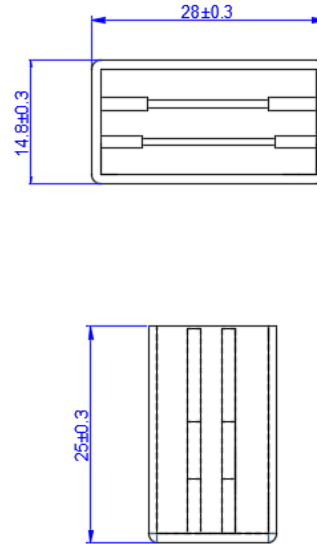
* The nail structure is optional, can be produced without nails and can also be produced in the desired nail size.

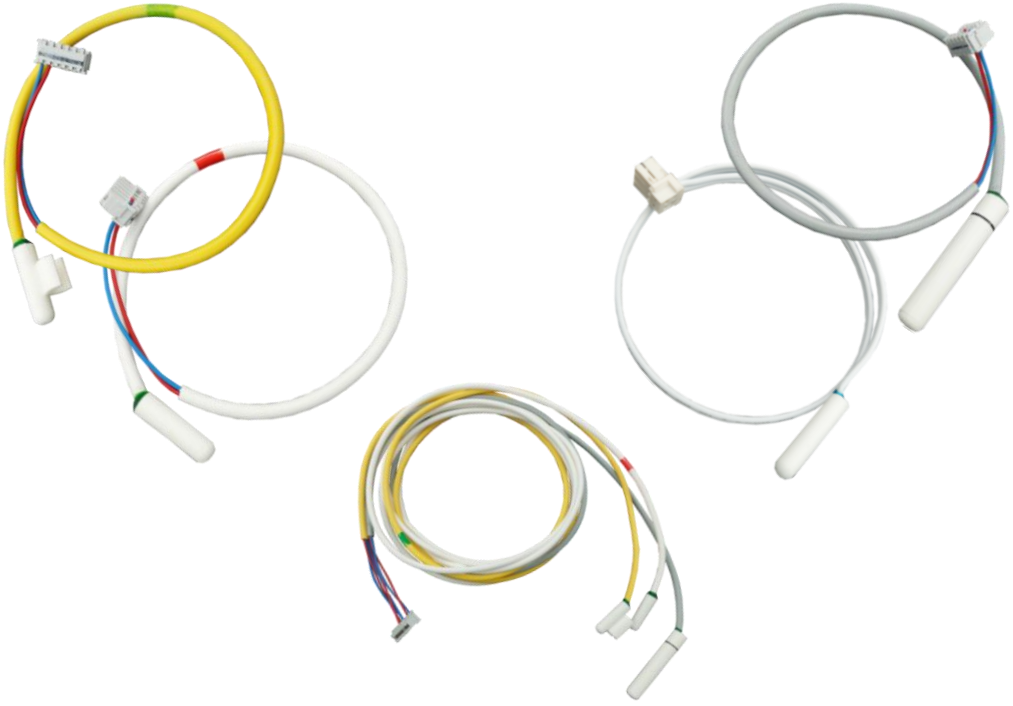
DIMENSIONS (mm)

With Pipe Latch



Without Pipe Latch





GENERAL INFORMATION

Temperature sensors are thermal resistors placed in different enclosures to detect the temperature change in the environment. They provide different resistances according to the temperature they sense, allowing the system to act in accordance with the desired operating conditions. The NC1 series is a wired thermistor placed in a resin-filled plastic housing. Although the NC1 series is used extensively in the white goods sector, it can be used in many sectors.

FEATURES

- ❖ Time Constant: 10sec (in air)
- ❖ Operating Temperature: -40/+125 °C
- ❖ Insulation Resistant: > 1000MW
- ❖ Degree of protection: IP68
- ❖ IEC/EN 60335-2-24 + A1 and IEC/EN 60335-1 Standard Complies
- ❖ Customizable Design Flexibility

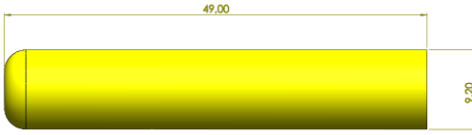
TEMPERATURE SENSORS – NC1

SOME BOX TYPE APPLICATIONS

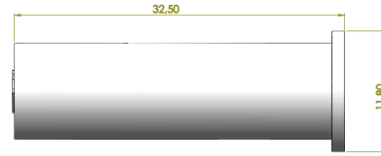


DIMENSIONS (mm)

Type-1



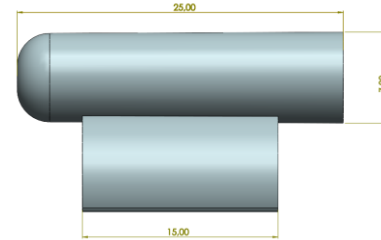
Type-2



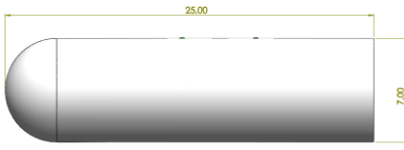
Type-3



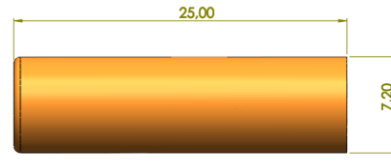
Type-4 (with Latch)



Type-5



Type-6



* Please contact us for different box size, connector type, NTC value and cable type and length requests.



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TEMPERATURE SENSORS – NC2



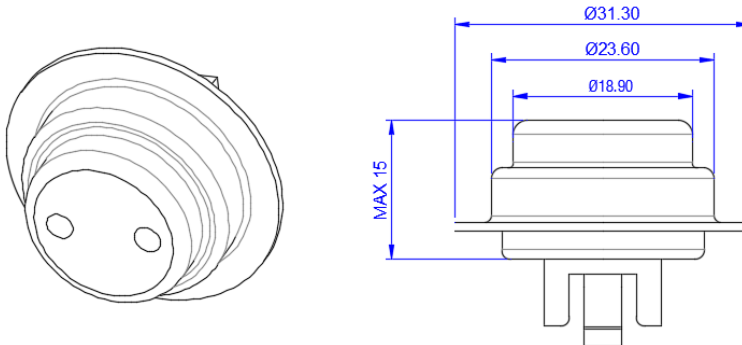
GENERAL INFORMATION

Temperature sensors are thermal resistors placed in different enclosures to detect the temperature change in the environment. They provide different resistances according to the temperature they sense, allowing the system to act in accordance with the desired operating conditions. The NC2 series is a special product including specific production techniques used in dishwashers, washing machines and dryers.

FEATURES

- ❖ Operating Voltage: 5V
- ❖ Water Absorption: %0,24 (23°C Underwater)
- ❖ Insulation Resistance: >10M Ω (500V DC)
- ❖ IEC/EN 60335-1+A1+A2 and IEC/EN 60335-1 Standard Complies

DIMENSIONS (mm)



TEMPERATURE SENSORS – NC3



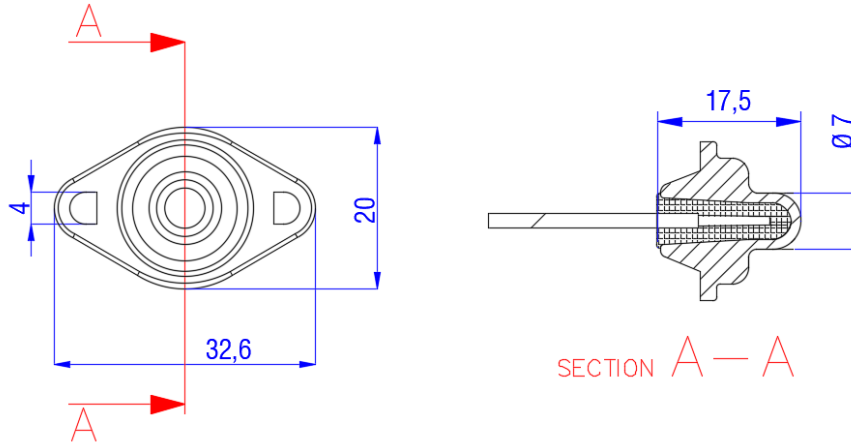
GENERAL INFORMATION

Temperature sensors are thermal resistors placed in different enclosures to detect the temperature change in the environment. They provide different resistances according to the temperature they sense, allowing the system to act in accordance with the desired operating conditions. The NC3 series is a special product containing specific materials that can operate at high temperatures used in dryers.

FEATURES

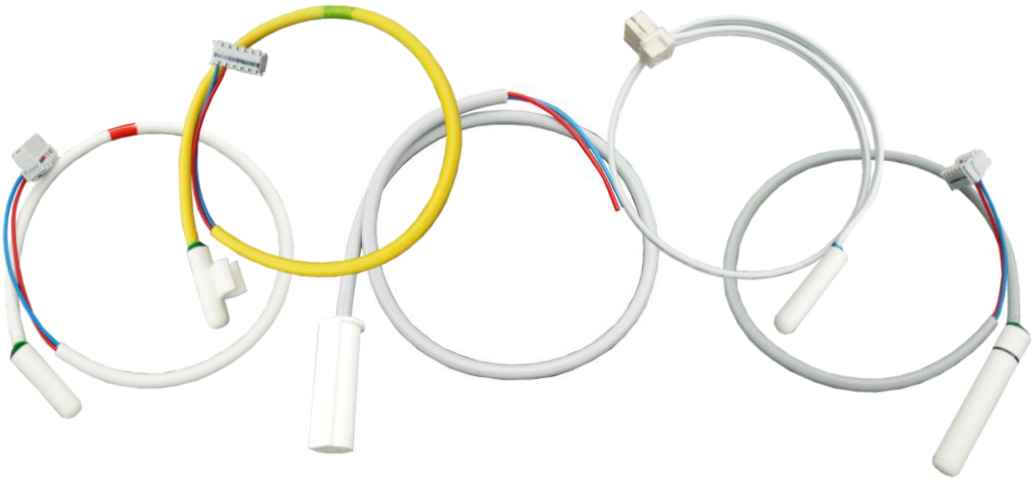
- ❖ Rated Voltage: 0-12 V DC
- ❖ PTI: 250
- ❖ Hardness: 82±2 Shore D
- ❖ Continuous Opr. Temp: 130 °C
200 °C (30 min.)
- ❖ Dielectric Strength: > 3750 V / 1min.
- ❖ Degree of protection: IP 68
- ❖ Ball Pressure (150 °C) : ≤ 2mm (EN 60695-10-2)
- ❖ IEC/EN 60335-1+A1 and
IEC/EN 60335-1:+A11 Standard complies

DIMENSIONS (mm)



Please contact us for different box size, connector type, NTC value and cable length requests.

TEMPERATURE SENSORS – E-NTC



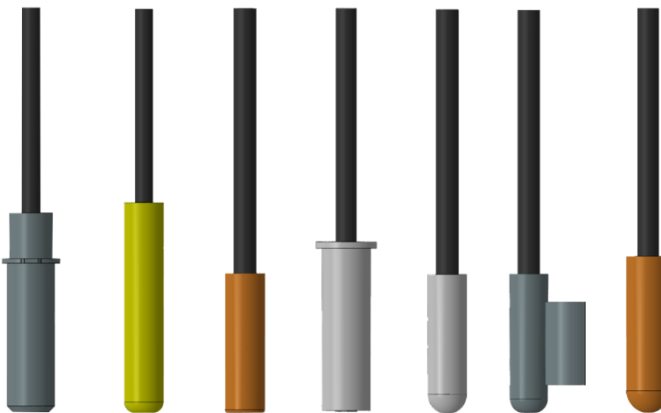
GENERAL INFORMATION

Temperature sensors are thermal resistors placed in different enclosures to detect the temperature change in the environment. They provide different resistances according to the temperature they sense, allowing the system to act in accordance with the desired operating conditions. E-NTC series is a special injection-printed sensor series that does not require filling resin material and provides sealing at IP68 level. It is used in many sectors, including the white goods sector.

FEATURES

- ❖ Time Constant: 10sec \geq (in air)
- ❖ Dissipation Factor: $\geq 2.1\text{mW}/^{\circ}\text{C}$ (in air)
- ❖ Max. Power: 5mW \geq (+25°C)
- ❖ Operating Temperature: -40/+125 °C
- ❖ Insulation Resistant: $> 10\text{M}\Omega$ (500V DC)
- ❖ Degree of Protection: IP68
- ❖ IEC/EN 60335-2-24 + A1 and IEC/EN 60335-1 Standard Complies
- ❖ No Need Filing Resin Material

E-NTC TYPES



* Please contact us for different box size, connector type, NTC value and cable types and length requests.