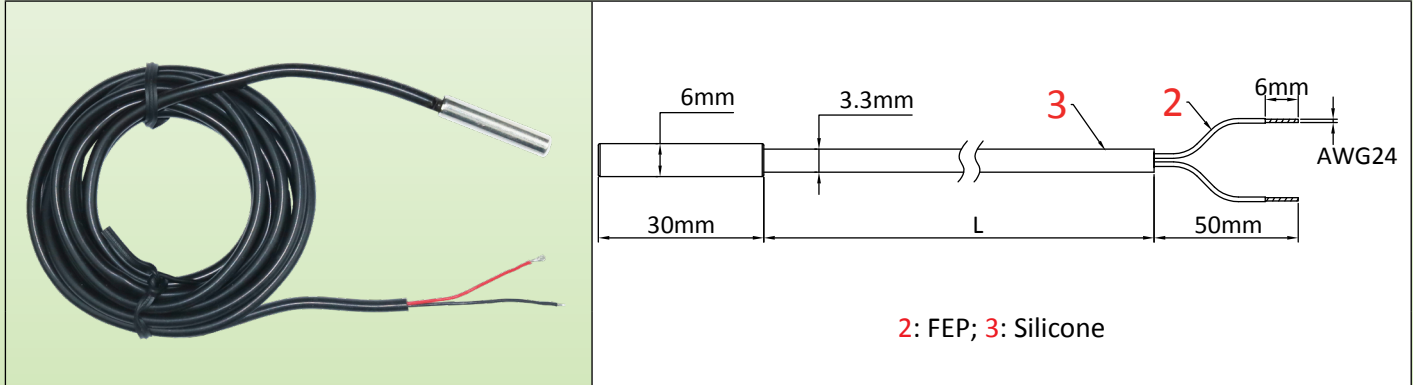


# Usual temperature sensors for applications with electronic temperature controls and control boxes

## 10 kohms NTC, dia. 6mm × 30mm nickel plated copper probe

Temperature range	Cable insulation	Probe protection	Temperature sensing device	Signal type	Type
20- 120°C (68- 390°F)	FEP	Nickel plated copper probe, dia.6mm × 30mm	10 Kohms thermistor	Ohms Logarithmic	<b>TNR6</b>



### Main applications

The main advantage of these NTC sensors in the temperature measurement is their robustness and a relatively short response time. They are resistant to shocks and vibrations, but their temperature resistance is limited.

### Main features

The thermistor is particularly economical. Its accuracy is correct for temperature ranges from 0 to 120°C. Its resistance decreases logarithmically with temperature. Its repeatability is good, but the interchangeability of the sensors between different suppliers is average. This is the reason why most electronic controllers using these thermistor sensors have a zero-correction system. These regulators are generally simple and inexpensive.

**Construction:** The measuring element is a glass bead encasing the sintered alloy with a negative temperature coefficient, from which two wires emerge. The conductors of the connecting cable are welded therein, and the assembly is inserted into a nickel-plated copper protection tube with low thermal inertia.

**Temperature range:** The operating temperature is limited to 120°C.

#### Accuracy and tolerances:

- Nominal value at 25°C: 10 Kohms +/- 1%. B = 3380 +/- 1%

**Color Code:** The two conductors are identical in color and each corresponds to one of the terminals of the thermistor. Due to the high resistance of the measuring element, a third conductor is not necessary.

**Composition of the cable:** 2 × 0.35mm<sup>2</sup>, (AWG24) silicone insulation with FEP sleeving, outer diameter 3.3mm.

### Main parts numbers (accuracy class 1%)

Part number	Cable length (mm)
TNR60030C02001F4	200
TNR60030C05001F4	500
TNR60030C10001F4	1000
TNR60030C20001F4	2000
TNR60030C30001F4	3000

Note: These temperature sensors are not manufactured by Ultimheat, and the information given is that of our suppliers.

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