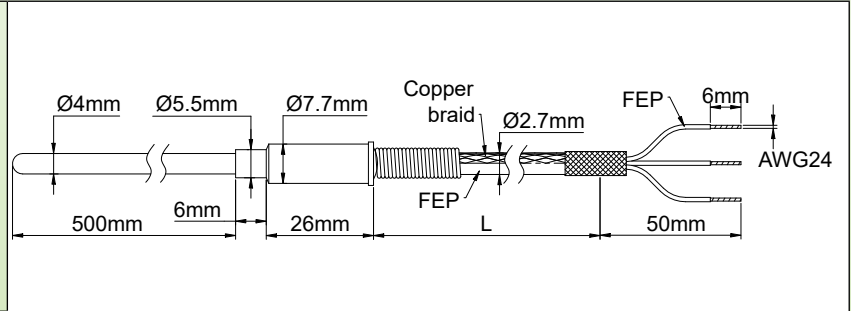
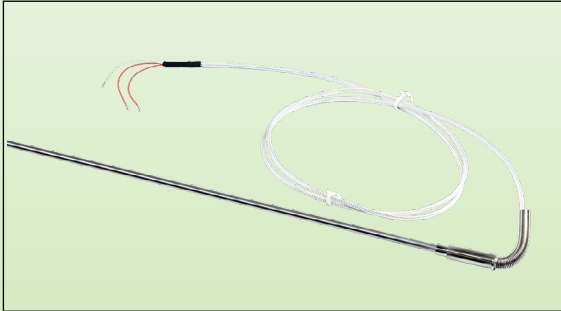


# Usual temperature sensors for applications with electronic temperature controls and control boxes

## High temperature 100 Ohms platinum RTD

Temperature range	Cable insulation	Probe protection	Temperature sensing device	Signal type	Type
20- 200°C	FEP + Braid	SUS 316 Stainless steel	Pt100 platinum resistance	Ohms	<b>TSR4</b>



### Main applications

The main advantage of these Pt100 sensors in the temperature measurement is their accuracy. However they are significantly less resistant to shock and vibration than thermocouples, and are more expensive.

### Main Features

The platinum resistivity has excellent repeatability, and high accuracy over a wide temperature range. The resistance variation curve of platinum as a function of temperature is much more linear than that of thermocouples or thermistors. Electronic controllers using Pt100 are simpler and less expensive than thermocouple ones. In addition, they don't need temperature-compensated cable such as thermocouples. Pt100 are used worldwide and are interchangeable, using the DIN 43760 curve.

**Construction:** Long probe dia 4mm in SUS316 stainless steel with high temperature insulation. Waterproof cable output. Cable is protected against shear by a stainless steel spring.

#### Accuracy and tolerances:

- Nominal value at 0°C: 100 Ohms.
- Nominal value at 100°C: 138.51 Ohms

The international standard IEC 751-1983 and DIN EN 60751 2009-05 give the parameters of the temperature response curve.

Class A with tolerance of  $\pm 0.15^\circ\text{C}$  at  $0^\circ\text{C}$  and  $\pm 0.95^\circ\text{C}$  at  $400^\circ\text{C}$ .

**Color Code:** The two red wires are connected together to their solder on one of the terminals of Pt100 element, and the white wire is connected to the other terminal.

- Section of the wires:  $7 \times 0.15\text{mm}$ .

**Cable composition:** 3 conductors,  $0.12\text{ mm}^2$  (AWG 24), insulation FEP + metal braid.

### Main parts numbers (Accuracy class A)

Part number	Cable length (L)
TS040201W0200BD6	200
TS040201W0500BD6	500
TS040201W1000BD6	1000
TS040201W2000BD6	2000
TS040201W3000BD6	3000

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

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