

## 10k Thermistor Temperature Sensor with Exposed Detector



Labfacility are the UK's leading manufacturer of Temperature Sensors, Thermocouple Connectors and associated Temperature Instrumentation and stockists of Thermocouple Cables. The Company has been trading since 1971 and is ISO 9001 accredited.

Labfacility have supplied Farnell for over 30 years, and an extensive range of our products are available to buy online, from stock, direct from Farnell.

2-wire 10K NTC exposed thermistor with a temperature range of -50 to +150°C, is a versatile temperature sensing device.

## Key Features:

- Resistance Value: 10K ohms
- Type: NTC (Negative Temperature Coefficient) thermistor, meaning its resistance decreases as the temperature increases.
- Temperature Range: Capable of accurately measuring temperatures from -50°C to +150°C.
- Wiring: 2-wire configuration for simple connectivity.

## Applications:

### Environmental Monitoring

- HVAC Systems: Essential for regulating heating, ventilation, and air conditioning systems by providing accurate ambient temperature readings.
- Climate Control Devices: Used in smart thermostats and climate control units to maintain optimal environmental conditions in residential and commercial buildings.

### Industrial Processes

- Equipment Monitoring: Critical for monitoring the operating temperatures of industrial machinery to prevent overheating and ensure optimal performance.
- Process Control: Used in various manufacturing processes where maintaining specific temperatures is crucial, such as in chemical production, food processing, and material fabrication.

## Specifications

<b>General Description</b>	Fast response, exposed detector
<b>Sensor Type</b>	Exposed Thermistor
<b>Thermistor</b>	10K NTC Thermistor
<b>BETA 25/85</b>	3977K
<b>Cable Length</b>	300mm, 500mm, 1m, 3m, or 5m
<b>Core / Strands</b>	7/0.2mm
<b>Cable Termination</b>	Bare Tails
<b>Max. Temperature</b>	+150°C
<b>Min. Temperature</b>	-50°C
<b>Accuracy</b>	+/- 0.2K (over 0-70°C)
<b>Number of Wires</b>	2

## Ordering Information

Number of Wires	Thermistor	Cable Length (mm)	Manufacturers Code	Farnell Order Code
2	10k	300	RG-S2TH-300-C5	<b>XF-2947-FAR</b>
2	10k	500	RG-S2TH-500-C5	<b>XF-2948-FAR</b>
2	10k	1000	RG-S2TH-1000-C5	<b>XF-2949-FAR</b>
2	10k	3000	RG-S2TH-3000-C5	<b>XF-2950-FAR</b>
2	10k	5000	RG-S2TH-5000-C5	<b>XF-2951-FAR</b>





### Thermocouple & PRT Cable

Thermocouple cables are available in IEC or ANSI colour codes. Insulation types include PFA, PTFE, PVC & Fibreglass. Available spool lengths include 10, 25, 50, 100 and 200m.

### Best Sellers

**IEC PVC Insulated Flat Pair**  
Farnell 7082319  
Newark 69C6504

**ANSI PTFE Insulated Twin Twisted**  
Farnell 2443696  
Newark 73AC8304

**ANSI PFA Insulated Twin Twisted**  
Farnell 2443711  
Newark 73AC8297

### Best Sellers



### Fabricated and Specialist Thermocouples

Styles include; Magnet, Washer, Nozzle, Leaf, Bayonet & Bolt thermocouple. Various lengths and calibration types available.



**Washer Thermocouple**  
Farnell 8597952  
Newark 38K1555



**Bayonet Thermocouple**  
Farnell 2785115  
Newark 37AC0993



**Magnet Thermocouple**  
Farnell 2081298  
Newark 88T2877



### Exposed Junction Thermocouples

Including exposed junctions with fitted or moulded miniature plug and insulated leads, ideal for test and development applications.

1, 2, 3, 5 & 10m lengths available in IEC or ANSI colours.

### Best Sellers

**ANSI Type K Exposed Junction**  
Farnell 2443720  
Newark 84X0232

**IEC Type T Exposed Junction**  
Farnell 7076186  
Newark 68C2613

**IEC Type K Exposed Junction**  
Farnell 4100748  
Newark 15J1022

### Best Sellers



### Thermocouple Connectors

Range of miniature or standard thermocouple connectors. Available in thermocouple types K, J, T, E, N, RS, B, and copper. IEC, ANSI & JIS colour codes available.

**IEC Thermocouple PCB Socket**  
Farnell 2347056  
Newark 06X5514

**IEC Thermocouple Plug**  
Farnell 7086362  
Newark 67C1559

**ANSI Thermocouple Socket**  
Farnell 2347121  
Newark 06X4819



### RTD Detectors

Wire-wound type provides greater accuracy and stability but are vulnerable to shock.

Flat film type are resistant to shock and have quicker thermal response times.

Various lengths and diameters available, in class A, B and 1/10th Din.

### Best Sellers

**PT1000 Thin Film Detector**  
Farnell 8598550  
Newark 38K0883

**PT100 Wire Wound Detector**  
Farnell 2770776  
Newark 25AC2608

**PT100 Class A Thin Film Detector**  
Farnell 8598525  
Newark 38K0885

### Best Sellers



### Mineral Insulated Thermocouples

Available in various calibration types with a variety of terminations.

These include; Thermocouple plugs, Terminal heads and Thermocouple cable.

**ANSI Thermocouple**  
Farnell 2420317  
Newark 53X3217

**IEC Thermocouple with Mini Plug**  
Farnell 4248338  
Newark 19J1166

**IEC Melt Bolt Thermocouple**  
Farnell 2816490  
Newark 44AC8638



### Resistance Thermometer Detectors (RTD) / Platinum Resistance Thermometers (PRT)

To suit a wide range of applications and styles, available in class A or B.

### Best Sellers

**Pt100 Heavy Duty Sensor Probe**  
Farnell 8598096  
Newark 38K0974

**Pt100 Sensor in Stainless Steel Tube with Teflon Lead**  
Farnell 2420300  
Newark 53X3459

**Pt100 Outdoor/ Cold Store Temperature Sensor**  
Farnell 2816462  
Newark 44AC8648



### L60 Fine Wire Thermocouple Welder

The Thermocouple Welder is a compact, simple-to-use instrument designed for thermocouple and fine wire welding. Supplied with foot switch, spare electrodes, pliers & safety glasses, impact clip and pen plate.

### Best Sellers



**L60+ Thermocouple & Fine Wire Welder and accessories**  
Farnell 2897470  
Newark 62AC8741

