



Standard thermocouple type R or S, for Primary laboratory, 0°C to 1600°C



The range of 1600 thermocouple standards are the result of many years development. The type R and S standards will cover the range from  $0^{\circ}$ C to  $1600^{\circ}$ C.

- Type R and type S
- Gas tight assembly
- Premium grade wire

## Description

The range of 1600 thermocouple standards are the result of many years development. The type R and S standards will cover the range from  $0^{\circ}$ C to  $1600^{\circ}$ C.

The measuring assembly comprises a 7 mm x 300 mm or 600 mm gas tight 99.7% recrystallized alumina sheath inside which is a 2.5 mm diameter twin bore tube holding the thermocouple.

The inner 2.5 mm assembly is removable since some calibration laboratories will only accept fine bore tubed thermocouples and some applications require fine bore tubing.

The covered noble metal thermocouple wire connects the measuring sheath to the reference sheath which is a 4.5 mm x 250 mm stainless steel sheath suitable for referencing in a  $0^{\circ}$ C reference system. Two thermo electrically free multistrand copper wires (teflon coated) connect the thermocouple to the voltage measuring device.

The thermocouple material is continuous from the hot or measuring junction to the cold, or referencing junction.



# Specifications

### General specifications

Temperature range	0 to 1600°C	
Response time	5 minutes	
Hot junction dimensions	L1 L1 L1 L2 L2 L2 L2 L2 L2 L2 L2 L2 L2	
Cold junction	250 mm x 4.5 mm	
Copper extension wires	2000 mm	
Immersion	100 mm min.	
Case dimensions (H x W x D)	65 x 710 x 165 mm	
Gross weight	900 g	
Feature	Removeable inner assembly	

### Models

Reference	Туре	Temperature range	Cold junction dimensions	Hot junction dimensions (L1)	Connecting cable (L2)	Material
1600 R/300	R	0°C to 1600°C	250 mm long x 4.5 mm diameter	300 mm long x 7 mm diameter	1450 mm	Platinum vs Platinum 13% Rhodium
1600 S/300	S	0°C to 1600°C	250 mm long x 4.5 mm diameter	300 mm long x 7 mm diameter	1450 mm	Platinum vs Platinum 10% Rhodium
1600 R/600	R	0°C to 1600°C	250 mm long x 4.5 mm diameter	600 mm long x 7 mm diameter	1150 mm	Platinum vs Platinum 13% Rhodium
1600 S/600	S	0°C to 1600°C	250 mm long x 4.5 mm	600 mm long x 7 mm	1150 mm	Platinum vs Platinum



	diameter	diameter	10% Rhodium	
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### Models and accessories

1600 Thermocouple Standards, Primary laboratory, 0°C to 1600°C Delivered in standard with:

• UKAS 4-point certification up to 1100°C

#### Models with cold junction

1600/R/300/CJ	Type R – Length: 300 mm
1600/R/600/CJ	Type R – Length: 600 mm
1600/S/300/CJ	Type S- Length: 300 mm
1600/S/600/CJ	Type S - Length: 600 mm

### Models without cold junction

1600/R/300/NCJ	Type R - Length: 300 mm
1600/R/600/NCJ	Type R - Length: 600 mm
1600/S/300/NCJ	Type S- Length: 300 mm
1600/S/600/NCJ	Type S - Length: 600 mm

#### Certification

UKAS	UKAS certification up to 1300°C
NPL	NPL certification up to 1600°C