

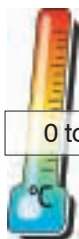
DATASHEET

Model-1600

Isotech

Distributed by AKRIBIS





Thermocouple Standards Platinum / Platinum Rhodium

- Premium-grade noble metal wire, thermally aged for stability
- Gas-tight alumina sheath for contamination resistance
- Removable inner assembly for flexibility and ease of maintenance

Isotech Model 1600 Platinum/Platinum-Rhodium Thermocouple

High-Accuracy Reference Thermocouple for Calibration Labs and High-Temperature Applications

The Isotech Model 1600 is a premium Type R or Type S thermocouple standard, designed for calibration laboratories and high-temperature environments up to 1600 °C. It is ideal for laboratories calibrating with compliance to AMS 2750 and ASTM E2750, including aerospace, automotive, and energy sectors.

Manufactured using ultra-high purity Platinum/Platinum-Rhodium wire (Pt/13%Rh for Type R, Pt/10%Rh for Type S), the Model 1600 ensures excellent long-term stability and low drift. A continuous noble metal conductor runs from the hot junction to the cold junction with no intermediate splices, preserving measurement integrity.

The measuring junction is protected inside a gas-tight 7 mm recrystallized alumina ceramic sheath. Inside is a removable 2.5 mm twin-bore insert housing the thermocouple wires. This removable assembly enables independent calibration or replacement without disturbing the outer sheath.

At the cold end, a 250 mm stainless steel sheath provides a stable 0 °C reference junction, connected via 2 m low-EMF copper leads. For systems with internal referencing, a "No Cold Junction" (NCJ) option is available.

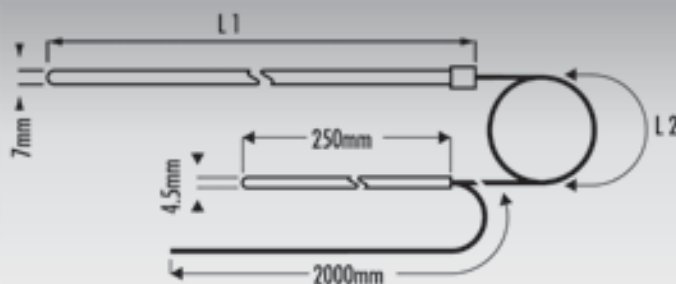
Supplied with a UKAS-accredited ISO 17025 calibration certificate to 1100 °C (uncertainty ± 0.8 °C), with optional extension to 1300 °C (uncertainty ± 1.8 °C).

For even lower uncertainties, fixed-point calibration can be provided at extra cost, delivering world-leading uncertainties as low as ± 0.3 °C to 1100 °C, rising to ± 0.55 °C at higher temperatures.

Key Features:

The Model 1600 offers trusted performance for the comparison calibrations of thermocouples in laboratories. Its robust design, wide temperature range, and proven stability make it the reliable choice for high-accuracy temperature standards.

Type R & S Standard Thermocouple, Model 1600,
Premium grade wire, gas tight assembly,
No intermediate junctions.



TYPE R & S STANDARD THERMOCOUPLE	CODE	L 1	L 2
	/600	600	1150mm
	/300	300	1450mm

Also available without the physical cold junction - Specify No Cold Junction (NCJ).

Model	1600
Hot Sheath	
Temperature Range	0°C to 1600°C (R or S)
Emf Vs Temperature	According to relevant document
Response Time	5 minutes
Hot Junction	see diagram
Dimensions	
Connecting Cable	see diagram
Cold Junction	250mm long x 4.5 diameter
Copper Extension Wires	2000mm
Immersion	100mm min.
Case Dimensions	Height 65mm Width 710mm Depth 165mm Gross Weight 900g
Feature	Removeable inner assembly

The standard thermocouple described can be supplied in the following noble metal combinations

TYPE R: Platinum vs Platinum 13% Rhodium

TYPE S: Platinum vs Platinum 10% Rhodium

How to order

Model 1600 Type R/300

Model 1600 Type R/600

Model 1600 Type S/300

Model 1600 Type S/600

If cold junction not required, specify NCJ.

UKAS calibration is included