

0 to 1500°C

# Thermocouple Standards

## Platinum / Palladium

- Superior stability to Platinum / Platinum Rhodium
- Very Low Uncertainties
- Use to 1500°C

These Platinum / Palladium Thermocouples (Pt/Pd) are manufactured by the National Physical Laboratory (NPL)



who have developed a novel physical mechanism which mitigates the mechanical stresses caused by the different thermal expansion of Pt and Pd wires. This dispenses with the fragile coil conventionally used with this type of thermocouple.

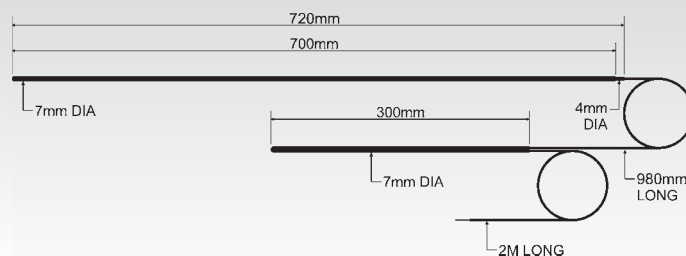
Platinum / Palladium thermocouples are more costly than Platinum / Platinum Rhodium types but benefit from superior performance, both in terms of stability (less de-calibration) and accuracy.

Gold / Platinum Thermocouples (Au/Pt) offer the best performance but are limited to a maximum temperature of 1000°C.

These Pt/Pd thermocouples offer lower drift than Platinum / Platinum Rhodium (Pt/Pt-Rh) and with higher operating temperatures than Au/Pt. They are suitable for a range of applications including transfer standards.

In addition to developing the novel structural design along with new annealing and construction procedures NPL have established the world's first ISO 17025 (UKAS) accredited calibration services using metal-carbon eutectic fixed point cells.

We are pleased to be able to offer the NPL Pt/Pd thermocouple with calibration alongside our own Pt/Pt-Rh and Au/Pt Standards.



|                     |   |
|---------------------|---|
| Temperature Range   | 0 to 1500°C   |
| Sheath Materials    | 4mm x 710mm, fits into a removable 7mm x 700 mm protective outer ceramic sheath |
| Measuring Junction  |   |
| Reference Junction  | Enclosed in a Quartz Sheath   |
| Applicable Standard | IEC 62460 Edition 1.0   |

### How To Order

Model Type: NPL Pt/Pd Thermocouple

Includes UKAS Calibration, specify range from either:

0°C to 1100°C Uncertainty of  $\pm 0.2^\circ\text{C}$   
Calibrated at Fixed Points Zn, Ag and Cu

0°C to 1330°C Uncertainty of  $\pm 0.2^\circ\text{C}$  from 0°C to 1100°C  
rising linearly to  $\pm 0.55^\circ\text{C}$  at 1330°C  
Calibrated at Fixed Points Zn, Ag and Co-C

0°C to 1500°C Uncertainty of  $\pm 0.2^\circ\text{C}$  from 0°C to 1100°C  
rising linearly to  $\pm 0.7^\circ\text{C}$  at 1500°C  
Calibrated at Fixed Points Zn, Ag and Pd-C