

- Pure Metal Construction
- Best Homogeneity
- Economic Attention to HTSPRTs

Since 1995 Isotech have been producing various designs of special Pt/Au, Pt/Pd, Pd/Au thermocouples for researchers. From our experience we can now offer the most popular of these, the Pt/Au thermocouple in a standard form.

All wires are 99.999+% pure and are fully annealed according to the recommendations of McLaren. Assembly also follows his prescriptions which have never been bettered.

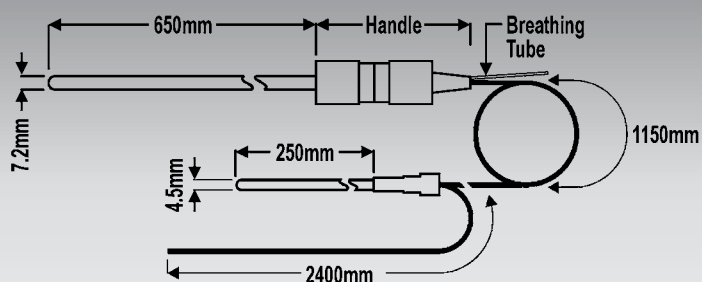
After final assembly and annealing the Pt/Au thermocouples will conform to IEC 26460, Edition 1 2008-07.

For the smallest uncertainties we calibrate the thermocouple at the Zinc, Aluminium and Silver Fixed Points.

We achieve these results because:

1. All materials are selected for their purity and high quality.
2. All parts are pre-aged and annealed prior to construction.
3. The construction allows for differential expansion of the Gold and the Platinum by having a coil of platinum bridge the two thermo elements at their measuring junction.
4. There are no joins between the measuring and reference junctions.
5. The reference junction is also researched and we use thermally pure copper wire of selected diameter which has been pre-annealed in inert gas to maintain the accuracy of the measuring junction.
6. The reference junction needs to be placed in an accurate reference system such as a Water Triple Point Cell or an Isotech Zeref.
7. An article describing in detail the construction, handling and operation of the thermocouple is provided free with each unit.

Thermocouple Platinum/Gold



*Economic alternative to HTSPRTs
Construction allows for differential expansion
Accuracy of $\pm 0.05^\circ\text{C}$ over the whole temperature range*

Temperature Range	0°C to 1000°C	
Sheath materials	Quartz	
Measuring Junction	Stainless Steel	
Reference Junction	Stainless Steel	
Thermo-element Purities		
Platinum	99.999% Pure	
Gold	99.999% Pure	
Calibration	Zinc	0.05°C
Uncertainties	Aluminium	0.05°C
	Silver	0.05°C
	0-1000°C	0.10°C
	Including uncertainty of interpolation / extraction	
Dimensions	Refer to drawing	
Carrying Case	Included as standard	

How to order

Model type: Pt/Au Thermocouple

Including emf vs. temperature traceable calibration certificate and carrying case.

UKAS Calibration optional.