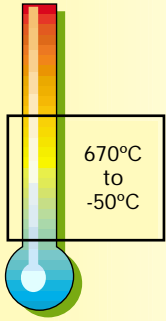


# Semi-Standards

## Platinum Resistance Thermometers



In most industrial laboratories the costly and mechanically fragile SPRT is unnecessary. For these applications the uncertainties may be larger, and hence the Isotech range of semi-standards may be a more practical choice. Usually made in stainless steel sheaths 6mm in diameter, with an  $R_0$  value of  $100\Omega$  and an  $(R_{100}-R_0)/R_0$  of 0.385. A number of configurations are available since particular characteristics might be required such as short sensing length, fast response, or applicability to a particular temperature range.

In this collection of semi-standards Isotech has examined not only the uses that customers put them to but also the equipment that is used to calibrate them. Most units are now a little longer and have a slightly wider temperature range than our previous products. The stability of the semi-standard will depend upon its range of usage; your semi-standard should remain with those uncertainties between successive annual calibrations, unless you drop it or otherwise mechanically shock it. Our semi-standards are now fitted with a handle and strain relief bush for the cable, except where otherwise stated. All are made with our own high quality 100 ohm detectors and completely assembled and calibrated in-house in our UKAS accredited and supervised Laboratory. Calibration is available with fixed points for the best uncertainties and to give the highest confidence possible.

Please note that stem conduction accounts for the biggest sources of errors during calibration. Remember that for a given immersion depth stem conduction is dependent on the temperature difference between the sensing element and ambient temperature, and on the total conductance of the thermometer assembly. It is sometimes thought (mistakenly) that a shorter thermometer will be subject to less stem conduction.

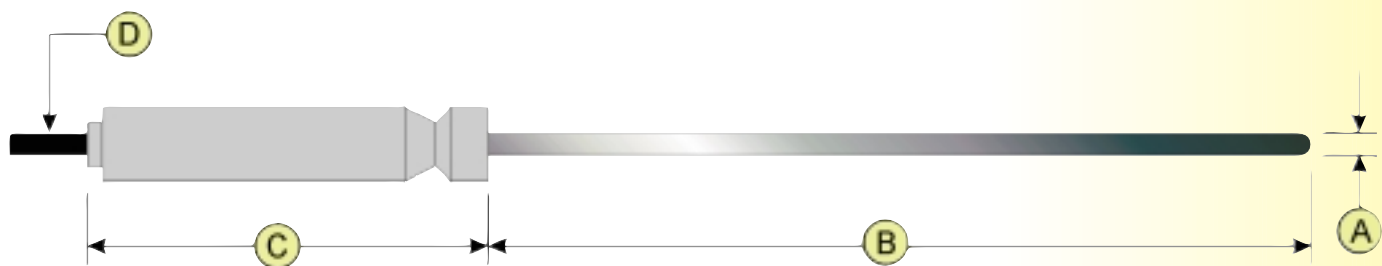
### Advantages

- Ideal for all Industrial applications.
- High Stability.
- Low Drift.
- Can be supplied with UKAS Calibration.
- Selection of Temperature Ranges.
- Choice of lengths and diameters.
- Specials available to special order.
- Long life.
- Maximum accuracy for many of our Industrial products.



# Semi-Standards

## Platinum Resistance Thermometers



<b>Model Number</b>	935-14-61	935-14-13	935-14-16	935-14-72	935-14-95
<b>Diameter (A)</b>	4mm	6mm	6mm	6mm	6mm
<b>Length (B)</b>	300mm	350mm	450mm	375mm	450mm
<b>Sensing Length</b>	6mm	25mm	25mm	25mm	25mm
<b>Handle (C)</b>	Yes	Yes	Yes	No	Yes
<b>Cable (D)</b>	2m PTFE 4 wire	2m PTFE 4 wire	2m PTFE 4 wire	2m PTFE 4 wire	2m PTFE 4 wire
<b>Temperature Range (°C)</b>	-50°C to +250°C	-196°C to +250°C	-100°C to +450°C	-50°C to +670°C	-100°C to +670°C
<b>Application</b>	Fast Response	Low Temperature Use	General Use	Gemini Jupiter	General Use Medusa
<b>Features</b>	Small Stem Conduction	Copper Earth Screen	316 stainless steel sheath	Fits lid of Carry-case	Metal alloy sheath

<b>Model Number</b>	935-14-82	935-14-85	935-14-98
<b>Diameter (A)</b>	4mm	6mm	4mm
<b>Length (B)</b>	210mm	420mm	300mm
<b>Sensing Length</b>	6mm	25mm	8mm
<b>Handle (C)</b>	No (Angled Pot)	No (Angled Pot)	No
<b>Cable (D)</b>	1.5m PTFE 4 wire	540mm PTFE 4 wire	2m PTFE 4 wire
<b>Temperature Range (°C)</b>	-50°C to +250°C	-50°C to +250°C	-50°C to +350°C
<b>Application</b>	Europa Venus Calisto	Oceanus-6	Fast Response
<b>Features</b>	General Purpose	General Purpose	Small Stem Conduction

<b>Model No.</b>	Refer to Chart
<b>Temperature Range</b>	Refer to Chart
<b>Ro</b>	100 ohms ±0.05 ohms
<b>Alpha</b>	0.003850 ±0.000005
<b>Stability</b>	0.010 ohm/year
<b>Calibration</b>	A UKAS Calibration Certificate can be provided at extra cost
<b>Recommended Current</b>	1mA
<b>Self-heating error at 1mA</b>	0.004°C
<b>Overall dimensions</b>	Refer to Chart

### Termination Options

BW Bare Wire

TTI Lemo Connector to suit TTI-5, TTI-6, TTI-7

DB Connector for Dry Block Calibrator Site Indicator

For independent use (without Dry Block Calibrator) please refer to Databook 5 for Calibration ranges and uncertainties

### How to Order

Please Specify Model Type and Termination Option (for example 935-14-13/BW) Please state whether UKAS Certification is required