

SENSING DEVICES LTD

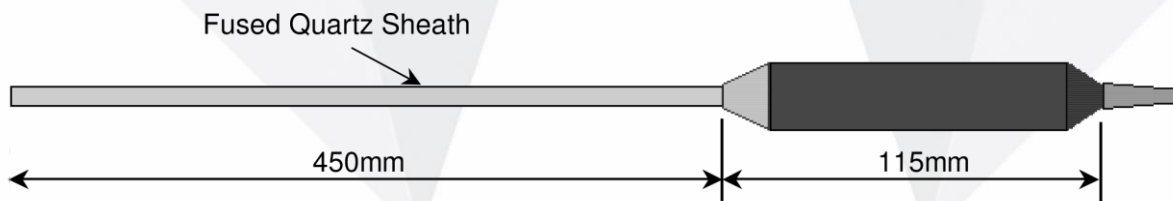
# MODEL Q

## PRECISION PLATINUM RESISTANCE THERMOMETER STANDARDS

Model 'Q' Precision Platinum Resistance Thermometer Standards are specifically designed for precise temperature measurement in industrial and scientific applications over the range -100 deg C to + 650 deg C. They are intended primarily for use in Standards Laboratories and are capable of maintaining a very high order of performance when correctly used and stored.

The units must not be subjected to undue shock or vibration and should be handled with extreme care if the calibration is to be maintained over long periods.

- A specially designed transit and storage case is offered to minimise mechanical shock.
- Each thermometer is identified with coding information and serial number.
- Special versions can be offered to suit customers exact mechanical or electrical specifications.



The Model 'Q' will be supplied with 2 metres of cable as standard, and terminated using individual spades.

<b>Temperature Characteristics (W Value)</b>	1,3925 minimum
<b>Operating Temperature</b>	-100 to +650 deg C
<b>Element</b>	50mm long unconstrained coil , resistance at 0deg C 25.5 ohms nominal
<b>Internal Leads</b>	Four - wire platinum
<b>External Leads</b>	4-leads of silver plated copper wire, 19/0,15mm, PTFE insulated and with outer screen with PTFE cover, fitted with 4 spade connectors and spade connected to screen .
<b>Performance Guarantee</b>	Each thermometer is supplied with a certificate giving resistance values at 0 deg C and 100 deg C obtained by comparison calibration against UKAS certified standards.
<b>Reproducibility</b>	+/- 0.01 deg C (0.001 ohms)
<b>Measuring Current</b>	1 milliampere
<b>Immersion depth</b>	200 mm is recommended minimum
<b>Immersion Effect</b>	Approximately +/- 0.001 deg C when changing from 100 to 250mm immersion
<b>Handle Temperature</b>	85 deg C maximum. Do not immerse beyond the sheath marking when using at 400 deg C or more.
<b>Material</b>	Fused quartz sheath Stainless steel fittings handle; 115 x 25mm (nominal)Nylotron

## CALIBRATION OF MODEL 'Q' THERMOMETERS

Each thermometer will be calibrated by Sensing Devices Ltd at 0 deg C and 100 deg C against UKAS certified standards and a certificate giving the values obtained will be supplied.

The following additional calibration facilities are available;

- Calibration at the Triple Point of Water (t68 = +0.01 deg C)
- Calibration at Freezing Point of Tin (t68 = 231.968 deg C)
- Calibration at Freezing Point of Zinc (t68 = 419.58 deg C)
- Provision of a calibration print-out over requested temperature range and intervals giving resistance values derived from measurements at 0 deg C , 100 deg C and an assumed value of Delta.
- Provision of a print-out of W values in 1 deg C steps, using the calibration values obtained at 0 deg C , 100 deg C and Zinc Point.
- A protective case is available and recommended for transit and storage of the thermometer.

**If the specifications listed do not meet your specific requirements, please contact a member of our technical team on +44 (0) 1704 546161.**