SENSING DEVICES LTD

MODEL S

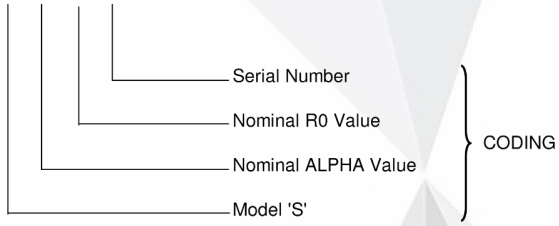
PRECISION PLATINUM RESISTANCE THERMOMETER STANDARDS

Model 'S' Precision Platinum Resistance Thermometers have stainless steel sheaths designed for temperature measurement in laboratory or industrial applications and for general purpose calibration of resistance thermometers, thermocouples or thermistor probes, in the range -100 degC to +450 degC

They can also be used for in-situ verification of process conditions or instrumentation loops and are of particular interest to users of precision electronic digital measurement systems, who wish to extend their capability to the accurate measurement of temperature.

Three models are available, with different ALPHA values, which allows selection of characteristics most suited to a particular application. The resistance value at 0 deg C (R0) is 100 ohms for each model.

MODEL	Nominal ALPHA
S 385/100/- - -	,003850
S 390/100/- - -	,003900
S 391/100/- - -	,003916



Each thermometer is identified with coding information and serial number. However, when ordering it is recommended that the full Model number is used. SDL would be pleased to quote to Customers requiring special thermometers, a high temperature capability, alternative characteristics or mechanical designs.

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

UKAS CALIBRATION 0171

UKAS MANAGEMENT SYSTEMS 8175
CML QMS195524

TECHNICAL DETAILS ARE OVERLEAF

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Model	S385	S390	S391
Temperature Characteristics (W Value)	1,3850	1,3900	1,3916
Operating Temperature	-100 to +450 deg C		
Element	100 +/- 0,05 ohms		
Internal Leads	Four - wire platinum		
External Leads	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 .		
Performance Guarantee	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.		
Reproducibility	+/- 0,02 deg C or +/- 0.008 ohms		
Measuring Current	1 milliampere is recommended		
Immersion depth	200 mm is recommended minimum		
Immersion Effect	Approximately +/- 0.005 deg C when changing from 100 to 250mm immersion		
Handle Temperature	85 deg C maximum. Do not immerse beyond the sheath marking when using at 400deg C or more.		
Material	316 stainless steel sheath, with a Nylotron handle Sheath dia; 6,35 x 450mm handle; 115 x 25mm (nominal)		

CALIBRATION OF MODEL 'S' 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.