

Medusa R Primary Lab Blackbody Source

Model 999

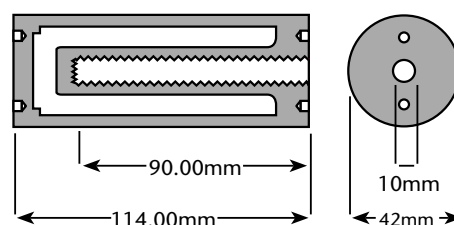
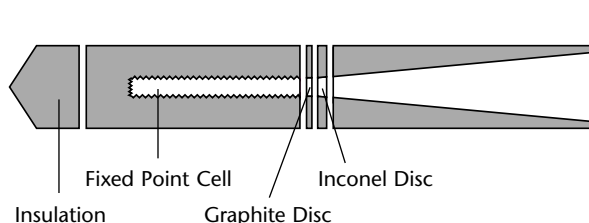
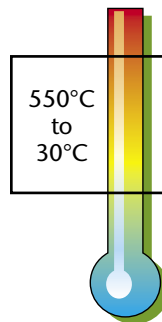
The Medusa R comprises a blackbody with which radiation pyrometers can be calibrated.

The temperature of the cavity can be set to $\pm 0.1^\circ\text{C}$ over the temperature range 30°C to 550°C .

The controller reaches 550°C approximately 45 minutes from switch on. Also, the cavity temperature, as measured by a radiation thermometer took approximately 45 minutes to reach stability from switch on. The variation seen on the controller's temperature indication over a 5 minute period is less than $\pm 0.5^\circ\text{C}$. Similar variations can be detected by a radiation thermometer looking into the cavity.

Using a portable radiation thermometer having a target diameter of 13mm, the 45mm target was surveyed. Maximum temperature differences of $\pm 1^\circ\text{C}$ were found for set temperatures in the range 100°C to 500°C . Temperatures along the inner 200mm of the 285 mm long cavity were measured at 400°C and 500°C , using a hand held fibre-optic radiation probe. Maximum temperature differences of $\pm 4^\circ\text{C}$ were found.

The temperature, as shown on the controller, agrees with the cavity temperature as measured by a radiation thermometer, where calibration is traceable to National Standards, to within $\pm 2^\circ\text{C}$. Large Fixed Point Cells can be fitted to the Medusa R giving small uncertainties suitable for National Standards.



Key Features

- Freeze and Melt Blackbody Fixed-Point Cells
- Can be Used for Comparison Calibration
- Accuracy to $\pm 0.05^\circ\text{C}$

Now Includes
PC Interface and Cal NotePad
Windows Software

SPECIFICATIONS

Model	999
Temperature Range	30°C to 550°C
Emissivity	greater than 0.995
Stability	$\pm 0.05^\circ\text{C}$
Display Resolution	0.01°C to 99.99; 0.1°C from 100.0 to 550.0
Cavity Size	45mm diameter 285mm deep
Time to Temperature	45 minutes
Power	110 VAC $\pm 10\%$ (50/60Hz) 1000 Watts typical
Dimensions	480mm x 425mm x 260mm (HxWxD)
Weight	37.5 lbs (17kg)

ACCESSORIES

998-06-00A	Indium Large Blackbody Fixed Point Cell
998-06-00B	Tin Large Blackbody Fixed Point Cell
998-06-00C	Zinc Large Blackbody Fixed Point Cell
984-00-00	Gas Flow System

HOW TO ORDER

999 Medusa R	Black Body Source
--------------	-------------------



INFRARED