

CL2-Nernst Relative Infrared Standard

User notes



Overview

The Bentham CL2-Nernst is a standard of relative spectral output, based on a infrared emitting Nernst element. To the determined of the source spectral output in the region 500-1100nm is fitted a Planckian black body curve; from which is extrapolated the output into the infrared.

The Nernst element is composed of a ceramic through which passes a heater coil. As the ceramic warms up it begins to conduct and to glow.

Mechanical

On the base of the lamp bracket is provided a hole for either mounting the lamp to a bench post (and fixing in place using rear screw) or the mounting of the lamp to a bench, held down by bolt and washer.

The cover of the lamp is removed by loosening the rear cover screws and gently lifting clear of the lamp. Proceed carefully to avoid striking the element. This applies equally for the replacement of the cover.

After operation, allow the emitter to cool down for a few minutes prior to moving, to prevent damage. Never run with the cover in place.

Emitter Operation

It is recommended to operate the Nernst from a constant current supply such as the Bentham 605/608:-

Source	Lamp Rating (W)	Current Supply (A)	Typical Operating Voltage (V)
CL2-Nernst	40	8.500	~4.5

For correct lamp operation, and to preserve the validity of the calibration, the following should be observed.

- Ensure the correct polarity is respected at all times
- Handles with care, the ceramic of the element is prone to crumble
- Do not remove bulb from holder nor touch bulb with bare fingers
- The emitter requires approximately five minutes warm-up time

WEEE statement:

Bentham are fully WEEE compliant, registration number is WEE/CB0003ZR.
Should you need to dispose of our equipment please telephone 0113 385 4352 or 4356, quoting account number 135419.

