

Large Emitting Surface Area Precise Temperature Control with **Good Uniformity**

LBBCH

Extended area black body is defined by the large emitting surface area precise temperature control with good uniformity. Tempsens make Blackbodies are state of the art, highly accurate and stable with different standard sizes and temperature ranges.

The LBBCH Series Extended Area blackbodies are low temperature infrared reference sources operating either in absolute or differential mode. This Blackbody series featuring the very high stability, they are particularly well adapted for the characterization and performance validation of a very wide range of IR Sensors, such as high resolution cameras for Thermography and long range thermal imagers. Essentially the black body emits a known amount of energy for an infinite number of wavelengths. This enables to draw the expected black body radiation curve for a given temperature. Temperature is accurately controlled by High accurate PID self tuning controller.



Key Feature

- Independent Controller with Real time display and Calibration data High thermal uniformity and emissivity
- Quick and convenient calibration technique
- Extended areas up to 300 mm x 300 mm
- Differential and Absolute modes of operation

- 6.Portable controller
- Serial communication and computer interfacing by RS232 Port
- Absolute temperature Range 0 Deg C to 100 Deg C

Technical Specifications

Parameter	LBB11H	LBB22H	LBB33H
Emissive area	100 x 100 mm²	200 x 200 mm ²	300 x 300 mm ²
Temperature range	50 to 500 °C	50 to 500 °C	50 to 500 °C
Emissive area uniformity (1)	(+/-) 2 at 400 °C	(+/- 3) at 400 °C	(+/- 4) at 400 °C
Emissivity	0.98 ±0.02	0.98 ±0.02	0.98 ±0.02
Stability	0.1°C	0.1°C	0.1°C
Temperature measurement accuracy	± 0.5°C	±0.5°C	± 0.5°C
Display resolution	0.1°C	0.1°C	0.1°C
Warm-up time from ambient to Tmax	30 min	45 min	60 min
Head dimensions W x H x D (mm3)	300 x 320 x 190 mm	550 x 550 x 260 mm	550 x 550 x 260 mm
Head weight	20 kg	25 kg	30 kg
Max. power consumption	2000 W	3000 W	5000 W
Power supply	230 VAC, 1 ph. 50 Hz	230 VAC, 1 ph. 50 Hz	230 VAC, 1 ph. 50 Hz
Remote control	Ethernet, RS-232	Ethernet, RS-232	Ethernet, RS-232
Operating temperature range (head)	-10°C to +50°C	-10°C to +50°C	-10°C to +50°C

*1 At 80% of Aperture



Accurate Sensors Technologies

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