

Extended Area Black Body

0 °C to 110°C

Wide Temperature Range

LBBCH offer a temperature range from 0 °C to 110°C

Large emissive area

LBBCH has the large emitting surface area precise temperature control with good uniformity. It is available in the customize sizes.

High Emissivity

The LBBCH Exceptionally high emissivity of 0.95 ± 0.02 .Extremely quick to reach various temperatures, i.e. heats up from room temp to +110°C in 10 minutes.

Accuracy and performance

The LBBCH is high stable unit that also provides excellent calibration accuracy with stability $\pm 0.01^\circ\text{C}$ at 110°C.

LBBCH

Low Temperature Extended Area Black Body



Extended area black body is defined by the large emitting surface area precise temperature control with good uniformity. Tempensens make Blackbodies are state of the art, highly accurate and stable with different standard sizes and temperature ranges. The LBBCH Series Extended Area black bodies are low temperature infrared reference sources operating either in absolute or differential mode. This Black body 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.

SPECIFICATIONS

Parameter	LBB11CH	LBB22CH	LBB33CH
Emissive area	100 x 100 mm ²	200 x 200 mm ²	300 x 300 mm ²
Temperature range (Standard)	10°C to 110°C		
Temperature range (Optional)	0°C to 110°C		
Emissivity	0.95±0.02		
Stability	±0.01°C		
Display resolution	0.01°C up to 99.99 (0.1 above 100°C)		
Method of control	Digital self tuned PID Controller		
Emissive area uniformity (1)	±0.50°C @ 50 °C	±0.70°C @ 50 °C	±1.0°C @ 50 °C
Head dimensions H x W x D (mm ³)	420 X 280 X 230 mm	520 x 480 x 300 mm	720 x 645 x 400 mm
Weight	15 kg	35 kg	45 kg
Power supply	230 VAC or 110 VAC 50/60 Hz 1 KW	230 VAC or 110 VAC 50/60 Hz 1.5 KW	230 VAC or 110 VAC 50/60 Hz 2 KW
Operating temperature range (head)	5°C to +25°C	5°C to +25°C	5°C to +25°C

*1 at 80% of emissive area

ACCESSORIES

- Master Pyrometer (Optional)
- Operational Manual
- Carry Case (Only for LBB11CH Model)
- NABL accredited calibration certificate (Optional)

