

## Extended Area Black Body

### 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  $0.98 \pm 0.02$ .Extremely quick to reach various temperatures, i.e. heats up room temp to +110 °C in 10 minutes. This saves time and increases productivity.

### 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.

### Easy to use

LBBCH has inbuilt PID controller or can be provided separately that shows real time display of the surface and set temperature

### Computer Interface

The communication port (RS232/ USB) enables communication with selected LBBCH calibrators for automation calibration and documentation thus it made documentation easy. Remote control via Ethernet link, Rs232 or USB port.

## LBBCH #

Highly Accurate Low Temperature Extended Area Black Body For Industrial / Laboratory Field Use



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.

With the Tempensens make Compact Extended Area Black body Temperature Calibrator, you have chosen an extremely effective instrument which we hope will live up to all your expectations. This is a fast, timesaving, and reliable true industrial temperature calibrator designed for on-site use.

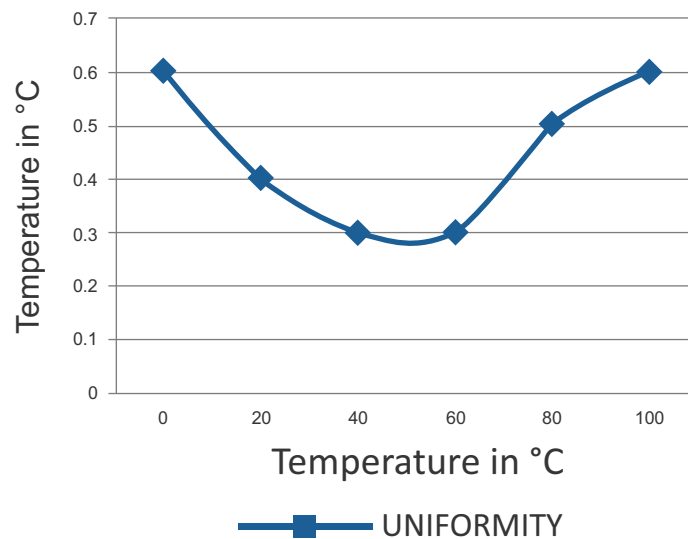
During the past several years, we have acquired extensive knowledge of industrial temperature calibration. This expertise is reflected in our products which are all designed for daily use in an industrial environment.

## SPECIFICATIONS

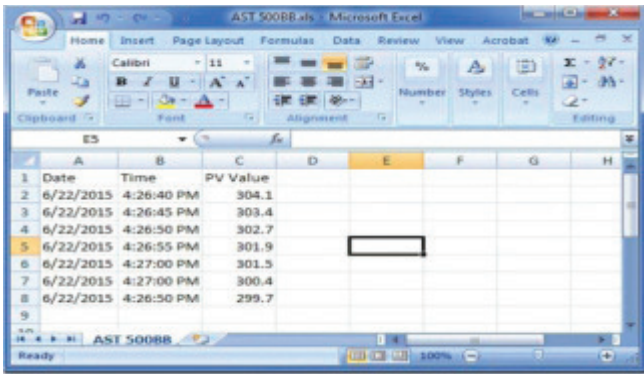
Parameter	LBB11CH	LBB22CH	LBB33CH
Emissive area	100 x 100 mm <sup>2</sup>	200 x 200 mm <sup>2</sup>	300 x 300 mm <sup>2</sup>
Temperature range (Standard)	10°C to 110°C		
Temperature range (Optional)	0°C to 110°C		
Emissivity	0.98±0.02		
Stability	±0.01°C		
Display resolution	0.01°C up to 99.99 (0.1 above 100°C)		
Method of control	Digital self tuned PID Controller		
Emissive area uniformity (1)	±0.20°C @ 50 °C	±0.20°C @ 50 °C	±0.30°C @ 50 °C
Head dimensions W x H x D (mm <sup>3</sup> )	380 X 280 X 230 mm	495 x 480 x 300 mm	695 x 645 x 400 mm
Weight	15 kg	35 kg	45 kg
Max. power consumption	1 K W	1.5 K W	2 K 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/USB	Ethernet/RS-232/USB	Ethernet/RS-232/USB
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

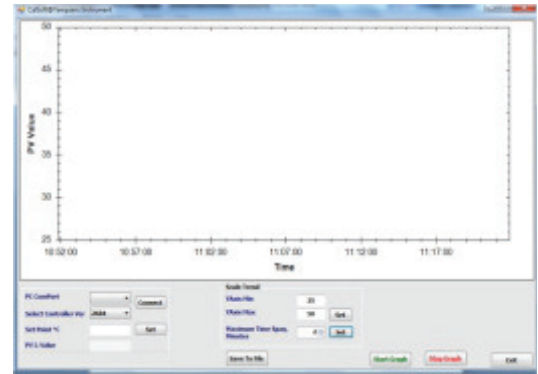
## UNIFORMITY OF LBBCH



## SOFTWARE



	A	B	C	D	E	F	G	H
1	Date	Time	PV Value					
2	6/22/2015	4:26:40 PM	304.1					
3	6/22/2015	4:26:45 PM	303.4					
4	6/22/2015	4:26:50 PM	302.7					
5	6/22/2015	4:26:55 PM	301.9					
6	6/22/2015	4:27:00 PM	301.5					
7	6/22/2015	4:27:00 PM	300.4					
8	6/22/2015	4:26:50 PM	299.7					
9								



- CalSoft including for setting bath temperature and monitoring the PV. Graphical representations of PV/TIME with 2 hours data logging.

## ACCESSORIES

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

