

# BBS500

## Blackbody Calibration Source

The compact PSC Model BBS500 infrared radiance source was designed for calibration of portable and process infrared thermometers, as well as thermal imaging detectors and systems.

The BBS500, a precision blackbody calibration source, combines accuracy, stability, uniformity and high emissivity. Digital RS422 or RS485 communication provides automated or manual process calibration operation.

The large aperture opening and wide temperature range offer extreme flexibility, allowing for calibration of most non-contact infrared temperature measurement devices.



## TECHNICAL SPECIFICATIONS FOR BBS500

CHARACTERISTICS	PERFORMANCE
Temperature range	50°C to 500°C
Aperture	2.36" (60 mm)
Total Emissivity	0.97 ± 0.01
Spectral emissivity 2 to 15 µm	> 0.95
Measurement uncertainty	± 1°C ± 0.003°C
Short term stability	± 0.2°C
Temperature uniformity	± 0.5°C ± 0.003°C (over 40mm area)
Typical heat-up time	25 → 100°C: 20 min, 25 → 500°C: 30 min
Temperature sensor	Pt100 class A
Method of control	PID controller
Display resolution	0.1°C
Digital communication	RS422/ RS485
Dimensions	9.45" x 12.20" x 12.20" (240 mm x 310 mm x 310 mm)
Weight	17.64 lbs (8 kg)
Power requirements	115 VAC ±10% 500W, optional: 230 VAC ± 10%, 500 VA

### PROCESS SENSORS CORPORATION

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