

BBS500-57

BLACK BODY CALIBRATION SOURCE



**Portable, Compact, Highly Stable, and Uniform Blackbody,
for Calibration of Non-Contact Infrared Pyrometers,
Thermal Imaging Cameras, FLIR Array Detectors,
Spectrophotometers, and Optical Systems**

OVERVIEW

The BBS500-57 is a lightweight Blackbody ideal for the calibration verification of pyrometers and thermal imaging cameras. It is used for temperature ranges between 50 to 500°C. The unit is cost-efficient and easy to transport. This Blackbody can quickly be implemented in many plants, laboratories, and factories.

APPLICATIONS

Onsite or laboratory calibrations of handheld and fixed IR thermometers and thermal imaging cameras:

- Verification and calibration of non-contact infrared temperature measuring instruments
- Radiance source for laboratories and suitable for non-site calibration of infrared thermometers and thermal imaging camera systems



BBS500-57 FEATURES

- Wide temperature range: 50 to 500°C (122 to 932°F)
- High Emissivity: 0.95 and 0.1°C Stability
- Large IR emitting surface area (Aperture size 2.25 inches / 57mm)
- Secondary insertion hole to accept a reference RTD sensor
- Light weight, compact portable design
- Simple operation



EASY TO USE

The BBS500-57 is easy to operate. Simply aim the IR sensing device at specified distance to the center of Blackbody IR emitting surface. Check, verify and calibrate as necessary.

The BBS500-57 portable infrared calibrator is particularly suited for calibration of portable hand-held or fixed online IR temperature sensors. The blackbody calibration source unit offers a large diameter aperture, enabling a wide range of infrared thermometers to be tested/calibrated.

As a secondary temperature verification, there is a hole located directly behind the IR emitting surface so that the measurement can be made with a contact RTD probe.



ORDERING INFORMATION

Part Number	Description
BBS500-57	PSC Model BBS500-57 Blackbody Calibration Source

SPECIFICATIONS

Temperature Range	50°C to 500°C
Accuracy	± 0.5°C at 100°C (± 1.0°F at 212°F) ± 1.8°C at 500°C (± 3.6°F at 932°F)
Temperature Resolution	0.1°C
Stability	±0.1°C at 100°C (±0.2°F at 212°F) ±0.3°C at 500°C (±0.6°F at 932°F)
Aperture Diameter	2.25 inches (57mm)
Emissivity	0.95
Heat Up Time	40 minutes to 500°C
Sensor	Precision Platinum Thermocouple
Operating Temperature	5°C to 35°C (41°F to 95°F)
Enclosure	Metal (Painted)
Dimensions	180mm x 114mm x 233mm
Weight	6 lbs / 2682 g
Power Requirements	120 VAC, 3A or 230 VAC (±10%), 1.5 A (select one)
Calibration Certificate	Traceable to a National Standards Calibration Lab

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