

# 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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