

INTRODUCTION

The BX-500 Portable IR Calibrator is used for calibrating long distance Infrared Thermometers, which are designed as handheld and need small calibrations.

Whether you're using in-line or handheld infrared pyrometers, you need a high performance calibration standard to verify accuracy. Portable IR Calibrator provides a stable black body target for calibrating non-contact IR thermometers up to 500°C.

The portable IR calibrator features a large temperature-controlled blackbody target with a diameter of 2.25" (57mm), which offers a wide field of view area for optical variations in IR thermometers. With an emissivity of 0.95, the isothermal target can be controlled in set-point increments of 0.1° from 50°C to 500°C.

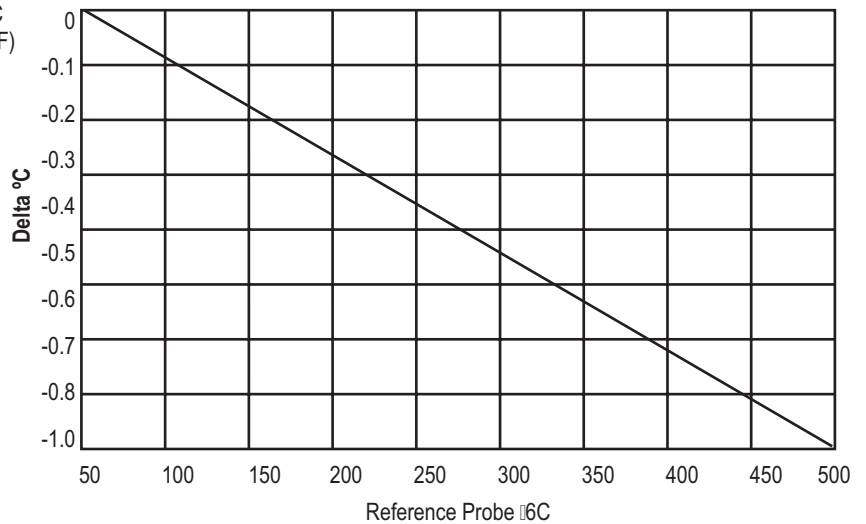
For even higher precision, a contact calibration well is located directly behind the blackbody surface. Using an optional digital RTD thermometer and calibrated secondary probe, accuracies of ±0.1°C can be achieved.

GENERAL SPECIFICATIONS

Range	: 50°C to 500°C (122°F to 932°F)
Accuracy	: ± 0.8°C at temp ≤ 100°C (± 1.6°F at Temp ≤ 212°F) ± 1.6°C at 100°C < Temp ≤ 200°C (± 3.2°F at 212°F < Temp ≤ 392°F) ± 2.8°C at 200°C < Temp ≤ 500°C (± 5.6°F at 392°F < Temp ≤ 932°F)
Stability	: ± 0.1°C at Temp ≤ 100°C (± 0.2°F at Temp ≤ 212°F) ± 0.2°C at 100°C < Temp ≤ 350°C (± 0.4°F at 212°F < Temp 662°F) ± 0.4°C at 200°C < Temp ≤ 500°C (± 0.8°F at 392°F < Temp ≤ 932°F)
Target Emissivity	: 0.95
Resolution	: 0.1°C/0.1°F
Heating Time	: 30 minutes to max
Cooling Time	: 30 minutes to 100°C (122°F)
Aperture Diameter	: 58 mm
Power	: 220VAC (±10%), 1.25A/110VAC (±10%), 2.5A
Size	: 180 x 114 x 233 mm
Weight	: 3 kg



Gradient between probe and IR surface



ENVIRONMENTAL CONDITIONS

Although the instrument has been designed for optimum durability and trouble-free operation, it must be handled with care. The instrument should not be operated in an excessively dusty or dirty environment.

Maintenance and cleaning recommendations can be found in the Maintenance section of this manual. The instrument operates safely under the following conditions:

Temperature range	: 5-35°C (41-95°F)
Ambient relative humidity	: 15-80%
Pressure	: 75kPa - 106kPa
Mains voltage within	: 10% of nominal
Vibrations in the calibration environment should be minimized	

*Technical Specifications & Appearance are subject to change without prior notice