



FEATURES

- ✱ NIST Traceable Calibration
- ✱ RS-232 Communication Interface
- ✱ Absolute Temperature Accuracy of $\pm 1.0^{\circ}\text{C}$
- ✱ 0°C to 90°C Absolute Temperature
- ✱ $\pm 0.1^{\circ}\text{C}$ Temperature Stability
- ✱ 4" Emitting Surface Size
- ✱ Emissivity (Average) > 0.970 (3-5.5 μm), > 0.950 (8-14 μm)
- ✱ Max Power Consumption of 180 Watts
- ✱ "Set & Forget" Programming
- ✱ IRWindows™ Lite Asset Control Software

OVERVIEW

Santa Barbara Infrared's MB Series blackbodies are absolute only temperature "set and forget" infrared calibration systems. They are designed to support single or multi non-uniformity correction test requirements. A user can quickly establish the blackbody temperature setpoint between 0°C and 90°C by using the included IRWindows™ Lite software. This temperature setpoint value is stored into the system's non-volatile memory, so no further PC connection is required after the initial temperature configuration. The operator can verify the blackbody is at the temperature setpoint by viewing the green "ready" indicator light on the back of the blackbody head. SBIR's MB Series blackbody systems are designed for use as flood sources for non-uniformity correction (NUC) and for calibration of IR sensors.

APERTURE SIZE & TEMPERATURE RANGE

Model	Emitting Surface Size	Temp. Range 0°C to 90°C Abs. T
MB-04	4" x 4"	X

Solutions

for Every EO Test Requirement

30 S. Calle Cesar Chavez, Suite D • Santa Barbara, Ca. 93103
ph (805) 965-3669 • fax (805) 963-3858 • <http://www.sbir.com>

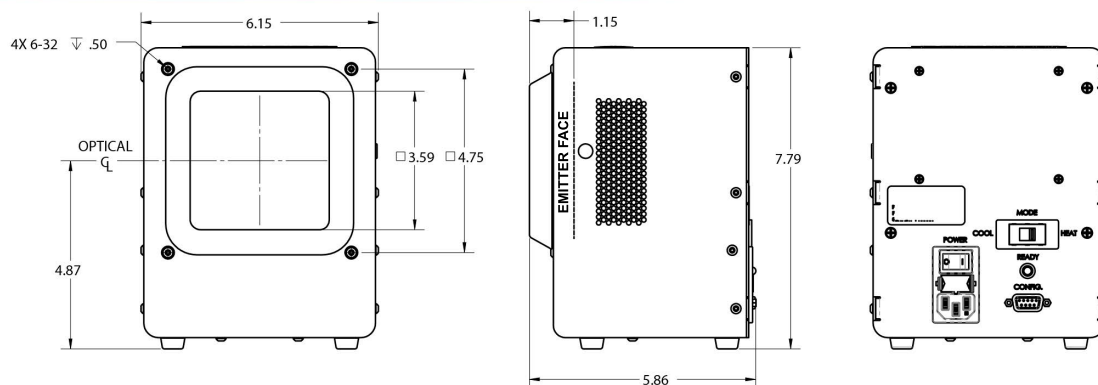
SYSTEM SPECIFICATIONS

Temperature Range.....	0°C to 90°C at 20°C ambient temperature
Emissivity (Average).....	> 0.970, (3µm to 5.5µm), >0.950 (8µm to 14µm)
Emitting Aperture Size.....	4 inch square
Uniformity.....	96% of set ΔT or 0.05°C, whichever is greater over 90% of emitting surface area
Absolute Accuracy.....	±1.0°C
Stability.....	±0.1°C
Setpoint Resolution.....	0.1°C
Selectable Ready Indicator.....	
Approximate Heating Rate ¹	+25°C/min. (at 25°C)
Approximate Cooling Rate ¹	-11°C/min. (at 25°C)

GENERAL SPECIFICATIONS

Operating Temperature.....	10°C to 40°C
Storage Temperature.....	-20°C to 70°C
Relative Humidity.....	5% to 95%, non-condensing
Maximum Power Consumption.....	180W
Approximate Blackbody Weight.....	MB-04 - 5.3 lbs.

DIMENSIONS



ORDER INFORMATION

Please contact the SBIR sales team at (805) 965-3669 to ensure proper part number and to receive a quotation.

Notes: 1. Slew rates can vary depending on environmental conditions as well as initial blackbody temperature in relation to commanded temperature setpoint.

* Specifications are subject to change without prior notice

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