



## FEATURES

- 50°C to 600°C Absolute Temperature Range
- Enhanced Emissivity > 0.93 (2  $\mu$  to 14  $\mu$ )
- Increased Stability
- Improved Architecture
- Ease of Integration with SBIR Products
- Multi-Function Controller
- GPIB or RS-232 Interfaces
- 2", 4" and 6" Versions Available

## OVERVIEW

The 4000 Series extended temperature blackbodies feature a 50°C to 600°C range, precise temperature control and a unique and uniform Lambertian emitting surface. These units are ideal for use as calibration source references, large area uniform flood sources and for backlighting targets. They are designed for use in laboratory, production and depot environments and are easily integrated into automated, multi-function test benches. Each system includes a calibrated blackbody head, separate controller, cabling and a user's manual.

## AVAILABLE SIZES & TEMPERATURES

Model	Emitting Surface Size	Temp. Range 50°C to 600°C Abs. T
4002	2" x 2"	X
4004	4" x 4"	X
4006	6" x 6"	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

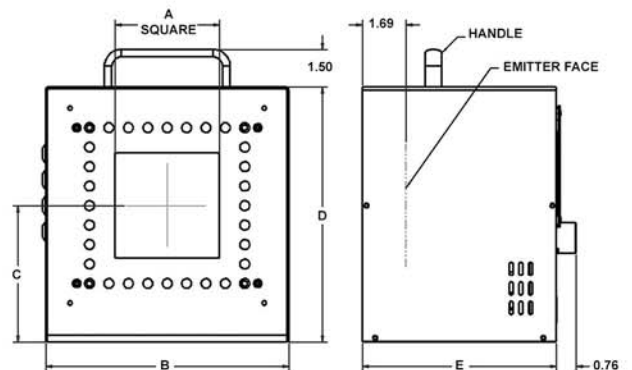
Available Aperture Sizes.....	2", 4", 6"
Temperature Range .....	50°C to 600°C Absolute
Emissivity.....	> 0.93, 2 $\mu$ to 14 $\mu$
Stability <sup>1</sup> .....	$\pm$ 0.30°C short term, $\pm$ 0.50°C long term
Total System Uncertainty.....	$\pm$ 3.5°C or 0.5%, whichever is greater
Display Resolution.....	0.10°C
Setpoint Resolution.....	0.10°C
Selectable Ready Indicator.....	$\pm$ 0.50°C
Approximate Heating Rate <sup>2</sup> .....	+0.25°C/sec. from 50°C to 600°C
Approximate Cooling Rate <sup>2</sup> .....	-0.05°C/sec. from 600°C to 50°C
Settling Time.....	45-120 seconds

## GENERAL SPECIFICATIONS

Operating Temperature.....	0°C to 50°C
Storage Temperature.....	-20°C to 70°C
Relative Humidity.....	5% to 95%, non-condensing
Maximum Power Consumption.....	1760W
Approximate Blackbody Weight.....	4002 - 15 lbs., 4004 - 20 lbs., 4006 - 28 lbs.
Approximate Controller Weight.....	21 lbs.

## DIMENSIONS

Model	(inches)					
	A Aperture	B Width	C Optical Center Line	D Height	E Depth	F Tgt. Depth
4002	2.04	7.65	4.25	7.81*	7.50	N/A
4004	4.04	9.40	5.25	9.81*	7.50	N/A
4006	6.04	11.40	6.38	12.81*	7.50	N/A



## ORDER INFORMATION

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

Notes: 1. Short term stability is approximately 1 hr. or less and long term stability is anything over 1 hr.

2. Slow rates vary depending on blackbody size and environmental conditions

\* Specifications are subject to change without prior notice



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