

## CES200 Series Extended Area Sources

### *System Use and Description*

The CES200 extended area sources provide stable and uniform graybody radiation for test and calibration of infrared sensors and systems. These sources are designed for laboratory or field use and feature fast slew rates, PID control and built in IEEE488 and RS232 computer interfaces.

### *Configuration*

These sources are available in stand alone configuration or integrated into one of the many Target Projectors/Simulators and Automatic Test Stations EOI offers. Emitting surface sizes range from 2" x 2" to 24" x 24".

The optional MicroCavity<sup>3</sup> emitting surface provides a significant improvement in effective emissivity.

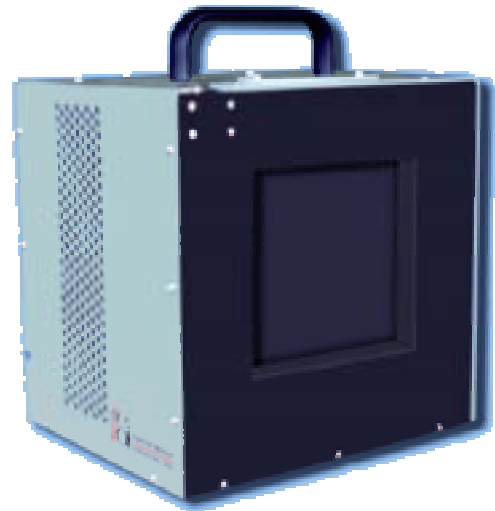
### *Special Features*

Each CES Source is supplied with a 19" rack mount digital controller. Operated manually from the front panel keypad or automatically using any of the four built in computer interfaces, this versatile controller also controls all optional equipment.



Menu Selections Include:

- Temperature Setting
- Display Resolution
- Remote/Local Control
- K, °C, or °F
- Ready Window Tolerance
- Interface Parameters
- Power On Configuration
- Self Test



### *Computer Interfaces*

Complete computerized control of the system is available through built-in interfaces.

- IEEE 488
- RS-232
- RS-422
- RS-485

All four interfaces are resident in controller. The IEEE 488 and any one of the RS formats may be used at the same time.

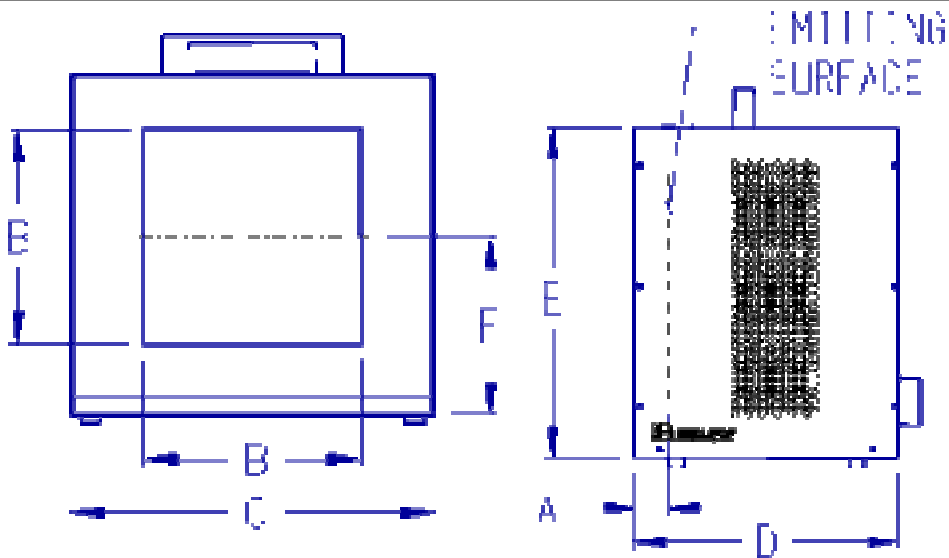
### *Calibration*

Each CES System is calibrated at EOI prior to shipment. Recommended calibration cycle is 6 months. Calibration is traceable to **NIST** National Institute of Standards and Technology. Calibration tables are stored in memory and are easily updated via the front panel keypad.

- Calibration--Accessed by User Assigned Password

### Specifications

Temperature Range	15 to 210 °C		Slew Rate Including Settling Time to 0.01°C	60 sec. for a 10 °C Change
Temperature Accuracy	± 0.03 °C		Emissivity Std Emitting Surface MicroCavity · Emitting Surface	0.97 ± 0.02 0.995 ± 0.005
Stability	± 0.003 °C ± 0.005 °C ± 0.010 °C	from 15 to 75°C 75 to 150 °C 160 to 210 °C	Setpoint Resolution	0.01 °C
Uniformity ± 0.01 °C	within 5 - of ambient 0.3% thereafter		Display Resolution	0.01 or 0.001 °C



*Source Dimension in Inches*

Model Number	Depth to Emitting Surface	Emitting Surface Size	Width	Depth	Height	Optical Height
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	A	B	C	D	E	F
CES200-02	1.1	2.0	8.1	6.8	7.8	4.0
CES200-04	1.0	4.0	10.1	7.9	8.5	5.0
CES200-06	1.1	6.0	12.1	8.7	11.5	6.0
CES200-08	1.0	8.0	13.1	8.7	13.6	7.0
CES200-10	1.2	10.0	14.8	8.7	16.1	7.8
CES200-12	1.2	12.0	16.1	8.7	16.6	8.5

## Power Requirements

The CES system operates from 100, 120, 220, or 240 VAC  $\pm 10\%$  (switch selectable), 50/60 Hz. The larger systems require 220V and may require a power amplifier in addition to the controller. Standard cable lengths between controller and blackbody or controller/output stage and output stage/blackbody are 8 feet. The plug-in mains power cable is also 8 feet long.

**This is data sheet EO710.** Information regarding this data sheet and any requests for data sheets may be directed to [eoj@sonatech.com](mailto:eoj@sonatech.com).