

# IR-140 and IR-160

## Extended Area Blackbody Sources

### FEATURES

- Digital PID PLUS Controller
- 16 Interval Ramp to and Hold from Front Panel
- Two (2) Customer Configured Alarm Relays
- One Year Warranty
- RS-232C/422A/485 or IEEE-488(optional)
- Electronic Ice Bath Reference (optional)
- Digital Watts Display



### DESCRIPTION

Our line of large area targets for wide field of view instruments and radiant intensity studies provide temperature ranges from ambient to 230°C and ambient to 350°C. These sources are coated with high emissivity (0.95 +/- 0.02) black finishes that are heat treated and durable enough for outdoor use. Independent temperature monitoring by means of a Type "T" thermocouple allows the user to accurately monitor the source temperature under the toughest of conditions.

#### IR-140 Blackbody Source

The IR-140 blackbody provides high quality and reliability with a thermally immersed heater winding that provides maximum thermal conductivity and uniformity from ambient to 230°C. the 12 inch square surface is an ideal calibration or reference target for today's large field of view imaging and target acquisition systems.

#### IR-160 Blackbody Source

The IR-160 blackbody has a temperature range from ambient to 350°C, increasing maximum temperature over the IR-140, with slightly higher edge-to-edge uniformity. At 350°C, the IR-160 provides ideal simulation of military targets, such as helicopter or combat tank engines. The large area creates an easy-to-find target under simulated battlefield conditions.



## SPECIFICATIONS

	IR-140	IR-160
Temperature Range	Ambient to 230°C*	Ambient to 350°C*
Absolute Calibration Accuracy	+/- 1.5°C	
Setability	1°C	
Stability	+/- 1°C of actual temperature	
Sensing Element	Platinum Resistance	
Calibration Thermocouple (Standard)	Type T, Copper/Constantan	
Surface Emissivity	0.95 +/- 2%	
Cavity Opening	12" x 12" square	
Temp. Distribution	Approx. 2°C Edge-To-Edge	+/-1% of Set Temp.
Warmup Time (ambient to maximum)	40 Minutes	50 Minutes
Dimensions (Source)	16.53" x 14.13" x 16.50"	
Weight	44 lbs.	64 lbs.

\* Minimum temperature is 0°C; however, the above specifications apply down to a temperature of 20° above ambient

## IR-140 AND IR-160 OUTLINE DRAWINGS

