

BL675A FLAT FLATE BLACKBODY CALIBRATION SOURCE



The BL675A is a portable blackbody calibration source utilizing a digital indicating temperature ambient 50°C to 500°C. A precision platinum RTD temperature sensor is embedded in the blackbody emitter, providing high accuracy and repeatability. The temperature controller uses the industry standard PID algorithms to control the emitter temperature to within 0.1% of the set points.

The black body emitter mechanism uses a resistive heating device that provides a long life, short stabilization times, and stable temperature control.

FEATURE

- 120 mm big aperture diameter, large area naturally minimizes source effect error
- Temperature range 50 to 500°C
- 0.10°C uniformity at 50°C set point
- Build-in temperature correction function
- Robust design, easy to carry
- External 8mm reference sensor input

TYPICAL APPLICATION

- Infrared temperature sensors
- Infrared thermal imaging systems
- Spectrographic analyzers
- Spectral radiometers
- Heat flux meter

SPECIFICATION

Temperature range	50 to 500°C
Aperture diameter	120 mm
Heated emitter shape	Flat Plate
Emissivity	> 0.95
Display resolution	0.1°C
Control stability (10min)	±0.10°C @ 50°C ; ±0.30°C @ 300°C ; ±0.40°C @ 500°C
Uniformity (2/3 area)	±0.10°C @ 50°C ; ±0.60°C @ 300°C ; ±1.00°C @ 500°C
Display accuracy	±0.5°C @ 100°C ; ±1°C @ 300°C ; ±1.50°C @ 500°C
Control method	Digital PID controller
Temperature sensor	Precision Platinum RTD
Power supply	220V AC / 500WA (110V is optional)
Interface	RS485
Heat up time	60 minutes from ambient to 500°C
Calibration band	8-14um spectral band
Dimension	240mm x 215mm x 375mm
Net weight	10 kg approx.

REFERENCE STANDARD

- ✓ IEC/TS 62492-1-2008: Industrial process control devices - Radiation thermometers. Part 1: Technical data for radiation thermometers
- ✓ ASTM E2847-2013: Standard practice for calibration and accuracy verification of wideband infrared thermometers
- ✓ ASTM E1256-2011a: Standard Test Methods for radiation thermometers (Single waveband type)
- ✓ OIML D24 (1996): Total radiation pyrometers
- ✓ JJG 856-2015: Verification regulation of radiation thermometers

SCOPE OF DELIVERY

- BL675A Blackbody calibration source
- Power cord (need to confirm the plug type in advance)

OPTIONAL ACCESSORIES

- Accredited calibration certificate (P/N: 9000-675)

ORDERING MODEL NUMBER

- BL675A-110V
- BL675A-220V