

BL682 LOW TEMPERATURE BLACKBODY CALIBRATOR



The BL682 is a low temperature black body calibration source utilizing a digital indicating temperature low to -50°C. A precision PT100 temperature sensor is embedded in the black body emitter, providing high accuracy and repeatability. The temperature controller uses the industry standard PID algorithms to control the emitter temperature to within 0.1°C 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.

FEATURES

- Temperature is low to -50°C .
- Emissivity is better than 0.998
- Stability is 0.1°C .
- Uniformity is 0.15°C
- 50 mm aperture diameter
- Build-in temperature correction function

APPLICATION

- Infrared temperature sensors
- Infrared thermal imaging systems
- Spectrographic analyzers
- Radio meters
- Flux meter

SPECIFICATION

- Temperature range: -50°C to 100°C
- Aperture diameter: 50 mm (1.97 inch)
- Heated emitter shape: Spherical
- Emissivity: better than 0.998
- Display Resolution: 0.01°C
- Stability (10min): $\pm 0.1^{\circ}\text{C}$ or 0.1%rd (whichever is great)
- Uniformity: 0.15°C or 0.15%rd (whichever is great)
- Tube depth: 340mm
- Control method: PID
- Temperature Sensor: PT100
- Power Supply: 220V AC / 4000WA
- Interface: RS232
- Cool down time: 2 hours from ambient to -50°C ,
- Heat up time: 1 hour from ambient temp. to 100°C .
- Media: Oil
- Calibration Method: Pyrometric
- Dimension (LDH): 550 x 850 x 1100mm
- Net Weight: 120 kg approx.

SCOPE OF DELIVERY

- BL682 Low temperature blackbody calibrator
- Power cord
- User manual
- Factory calibration report

OPTIONAL ACCESSORIES

- Accredited calibration certificate (P/N: CAL-682)

ORDERING MODEL NUMBER

- BL682-50: black body calibrator -50°C to 100°C
- BL682-40: black body calibrator -40°C to 100°C
- BL682-30: black body calibrator -30°C to 100°C