BL676 PORTABLE BLACK BODY CALIBRATION SOURCE

The BL676 is a portable blackbody calibration source utilizing a digital indicating temperature ambient 35℃ to 500℃ . 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

- Temperature range 35 to 500°C
- Emissivity is better than 0.995
- 50 mm aperture diameter end closed tube
- 0.15°C high blackbody surface uniformity
- Built-in temperature correction function
- External SPRT test is available
- Light weight, easy to carry
- Robust construction

TYPICAL APPLICATION

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

SPECIFICATION

Temperature range	35°C to 500°C
Aperture diameter	50 mm
Heated emitter shape	End closed tube
Emissivity	better than 0.995
Display resolution	0.1°C
Control stability (10min)	0.1°C or 0.1%rd (whichever is great)
Temperature uniformity	0.15°C or 0.15%rd(whichever is great)
Test distance	130 mm (End tube to target surface)
Control method	Digital PID controller with readout
Temperature sensor	Precision Platinum RTD
External SPRT test hole	8mm diameter x 155mm depth
Power supply	220V AC, 500 VA
Interface	RS485
Heat up time	< 1 hour ambient to 500°C
Calibration band	8um-14um spectral band
Dimension w/o holder	260mm x 200mm x 260mm
Net weight	Approx. 5 kg

REFERENCE

- ✓ 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

- BL676 Portable infrared calibration source
- Power code (need to confirm power plug type in advance)

OPTIONAL ACCESSORIES

- Accredited calibration certificate (P/N: 9000-676)

ORDERING MODEL NUMBER

- BL676-110V
- BL676-220V