TECHNICAL DATA

Fluke 9132/9133 Portable Infrared Calibrator with Blackbody Source





Key features

- Accurate, reliable performance from –15 °C to 500 °C
- Small, compact design in a blackbody calibrator
- These blackbody calibrator units feature a temperature controlled measurement surface with a diameter of 2.25 in (57 mm).
- Intuitive, easy-to-read display that indicates when temperature is stable.

Product overview: Fluke 9132/9133 Portable Infrared Calibrator with Blackbody Source

Precision when you need it for infrared temperature calibration

Fluke 9132: blackbody calibration up to 500 °C
For IR calibrations above normal ambient, the Fluke 9132 blackbody calibration source provides a stable measurement surface up to 500 °C (932 °F). Short heating and cooling times mean you won't have to wait long to get your work done. Radiometric calibration gives you confidence in your measurements to 500 °C.

Fluke 9133: blackbody calibration from -30 °C to 150 °C
If you're calibrating IR thermometers at cold temperatures, you'll love our new Fluke 9133 blackbody calibration source. With solid-state cooling technology, this new IR calibrator reaches –30°C (22°F) in normal ambient conditions. With a

conveniently located dry gas fitting on the front bezel, ice build up on the target can be avoided. At the upper end of its range, the Fluke 9133 provides stable temperatures to 160°C (320°F).

With heating and cooling times of about 15 minutes from ambient to either extreme, the Fluke 9133 gets you to temperature quickly and performs when it gets there.

Blackbody calibrator frequently asked questions

Fluke Calibration offers a range of high-quality blackbody calibrators designed to meet the demanding needs of professionals in various industries. To help you understand these valuable tools, we've compiled answers to some frequently asked questions.

What is a blackbody calibrator?

A blackbody calibrator, also referred to as a blackbody source, is a device that produces a known temperature with very high emissivity, typically approaching 1.0. This means it emits thermal radiation very close to the theoretical maximum predicted by Planck's law.

Blackbody calibrators are critical in calibrating infrared thermometers, thermal imagers, and other non-contact temperature measurement instruments. By aiming the instrument at the precisely controlled temperature source of the blackbody calibrator, technicians and engineers can adjust the instrument's readings to ensure accuracy and compliance with industry standards.

Specifications: Fluke 9132/9133 Portable Infrared Calibrator with Blackbody Source

Specifications	9132	9133
Temperature range	50°C to 500°C (122°F to 932°F)	–30°C to 150°C at 23°C ambient (–22°F to 302°F at 73°F ambient)
Accuracy	±0.5°C at 100°C (±0.9°F at 212°F) ±0.8°C at 500°C (±1.4°F at 932°F)	±0.4°C (±0.72°F)
Stability	±0.1°C at 100°C (±0.18°F at 212°F) ±0.3°C at 500°C (±0.54°F at 932°F)	±0.1°C (±0.18°F)
Target size	57 mm (2.25 in)	57 mm (2.25 in)
Target emissivity	0.95 (±0.02 from 8 to 14 mm)	0.95 (±0.02 from 8 to 14 mm)
Resolution	0.1°	0.1°
Heating time	30 minutes (50°C to 500°C)	15 minutes (25°C to 150°C)
Cooling time	30 minutes (500°C to 100°C)	15 minutes (25°C to –20°C)

Computer interface	RS-232 I/O included	
Power	115 V AC (±10%), 3 A or 230 V AC (±10%), 1.5 A, switchable, 50/60 Hz, 340 W	115 V AC (±10%), 1.5 A, or 230 V AC (±10%), 1.0 A, switchable, 50/60 Hz, 200 W
Size (H x W x D)	102 x 152 x 178 mm (4 x 6 x 7 in)	152 x 286 x 267 mm (6 x 11.25 x 10.5 in)
Weight	1.8 kg (4 lb)	4.6 kg (10 lb)
NIST-traceable contact calibration	Data at 50°C, 100°C, 200°C, 250°C, 300°C, 400°C, and 500°C	Data at –30°C, 0°C, 25°C, 75°C, 100°C, 125°C, and 150°C

Ordering information



9132
Fluke 9132 Portable Infrared Calibrator
50°C to 500°C

9133
Fluke 9133 Portable Infrared Calibrator
–30°C to 150°C at 23°C ambient

Fluke. *Keeping your world up and running.®*

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