

TECHNICAL DATA

Fluke 9132/9133 Portable Infrared Calibrator



Key features

9132

For IR calibrations above normal ambient, the 9132 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.

9133

If you're calibrating IR guns at cold temperatures, you'll love our new 9133. 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 9133 provides stable temperatures to 160 °C (320 °F).

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

Product overview: Fluke 9132/9133 Portable Infrared Calibrator

Precision when you need it for infrared temperature calibration

- Certify IR pyrometers from -30 °C to 500 °C (-22 °F to 932 °F)
- Large 57 mm (2.25 in) blackbody target
- RTD reference well for contact temperature measurement

- Small, compact design

Whether you're using in-line or handheld infrared pyrometers, you need good calibration standards to verify their accuracy. Our portable IR calibrators provide stable blackbody targets for calibrating noncontact IR thermometers from $-30\text{ }^{\circ}\text{C}$ to $500\text{ }^{\circ}\text{C}$.

These units feature a temperature controlled measurement surface with a diameter of 2.25" (57 mm). The target temperature can be controlled in set-point increments of 0.1 ° from $-30\text{ }^{\circ}\text{C}$ to $500\text{ }^{\circ}\text{C}$ and a well is located directly behind the blackbody surface for contact calibration.

Specifications: Fluke 9132/9133 Portable Infrared Calibrator

Specifications	9132	9133
Temperature range	$50\text{ }^{\circ}\text{C}$ to $500\text{ }^{\circ}\text{C}$ ($122\text{ }^{\circ}\text{F}$ to $932\text{ }^{\circ}\text{F}$)	$-30\text{ }^{\circ}\text{C}$ to $150\text{ }^{\circ}\text{C}$ at $23\text{ }^{\circ}\text{C}$ ambient ($-22\text{ }^{\circ}\text{F}$ to $302\text{ }^{\circ}\text{F}$ at $73\text{ }^{\circ}\text{F}$ ambient)
Accuracy	$\pm 0.5\text{ }^{\circ}\text{C}$ at $100\text{ }^{\circ}\text{C}$ ($\pm 0.9\text{ }^{\circ}\text{F}$ at $212\text{ }^{\circ}\text{F}$) $\pm 0.8\text{ }^{\circ}\text{C}$ at $500\text{ }^{\circ}\text{C}$ ($\pm 1.4\text{ }^{\circ}\text{F}$ at $932\text{ }^{\circ}\text{F}$)	$\pm 0.4\text{ }^{\circ}\text{C}$ ($\pm 0.72\text{ }^{\circ}\text{F}$)
Stability	$\pm 0.1\text{ }^{\circ}\text{C}$ at $100\text{ }^{\circ}\text{C}$ ($\pm 0.18\text{ }^{\circ}\text{F}$ at $212\text{ }^{\circ}\text{F}$) $\pm 0.3\text{ }^{\circ}\text{C}$ at $500\text{ }^{\circ}\text{C}$ ($\pm 0.54\text{ }^{\circ}\text{F}$ at $932\text{ }^{\circ}\text{F}$)	$\pm 0.1\text{ }^{\circ}\text{C}$ ($\pm 0.18\text{ }^{\circ}\text{F}$)
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 ($50\text{ }^{\circ}\text{C}$ to $500\text{ }^{\circ}\text{C}$)	15 minutes ($25\text{ }^{\circ}\text{C}$ to $150\text{ }^{\circ}\text{C}$)
Cooling time	30 minutes ($500\text{ }^{\circ}\text{C}$ to $100\text{ }^{\circ}\text{C}$)	15 minutes ($25\text{ }^{\circ}\text{C}$ to $-20\text{ }^{\circ}\text{C}$)
Computer interface	RS-232 I/O included	
Power	115 V AC ($\pm 10\%$), 3 A or 230 V AC ($\pm 10\%$), 1.5 A, switchable, 50/60 Hz, 340 W	115 V AC ($\pm 10\%$), 1.5 A, or 230 V AC ($\pm 10\%$), 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 $50\text{ }^{\circ}\text{C}$, $100\text{ }^{\circ}\text{C}$, $200\text{ }^{\circ}\text{C}$, $250\text{ }^{\circ}\text{C}$, $300\text{ }^{\circ}\text{C}$, $400\text{ }^{\circ}\text{C}$, and $500\text{ }^{\circ}\text{C}$	Data at $-30\text{ }^{\circ}\text{C}$, $0\text{ }^{\circ}\text{C}$, $25\text{ }^{\circ}\text{C}$, $75\text{ }^{\circ}\text{C}$, $100\text{ }^{\circ}\text{C}$, $125\text{ }^{\circ}\text{C}$, and $150\text{ }^{\circ}\text{C}$

Ordering information

**Fluke 9132**

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

Fluke 9133

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

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

Contact:
Industrial Process Measurement, Inc.
3910 Park Ave, Unit #7
Edison, NJ 08820 USA
(732) 632-6400
support@instrumentation2000.com
<https://www.instrumentation2000.com/>

©2023 Fluke Corporation.
Specifications subject to change without notice.
10/2023

**Modification of this document is not permitted
without written permission from Fluke Corporation.**