

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  $0.1\text{ }^{\circ}$  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 ( $\pm 0.02$ from 8 to 14 mm)	0.95 ( $\pm 0.02$ from 8 to 14 mm)
Resolution	$0.1\text{ }^{\circ}$	$0.1\text{ }^{\circ}$
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.®*

**Fluke Europe B.V.**

P.O. Box 1186  
5602 BD Eindhoven  
The Netherlands  
[www.fluke.com/en](http://www.fluke.com/en)

©2023 Fluke Corporation. All rights reserved.  
Data subject to alteration without notice.  
10/2023

**For more information call:**

In Middle East/Africa  
+31 (0)40 267 5100

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