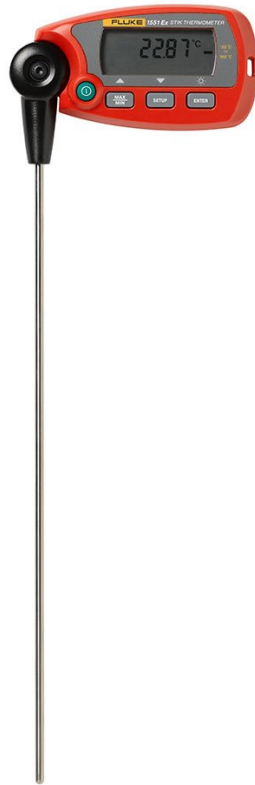


TECHNICAL DATA

# Fluke 1551a Stik Thermometer & Temperature Calibrator







## Key features

- Intrinsically-safe, battery operated, portable reference thermometer
- Provides accuracy of  $\pm 0.05^{\circ}\text{C}$  ( $\pm 0.09^{\circ}\text{F}$ ) over full range
- Features intrinsically-safe operation (ATEX and IECEx compliant)
- Measures  $-50^{\circ}\text{C}$  to  $160^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$  to  $320^{\circ}\text{F}$ )
- Provides user-configurable temperature with Trend/Stability indicator
- Displays temperature in  $^{\circ}\text{C}$  or  $^{\circ}\text{F}$

## Product overview: Fluke 1551a Stik Thermometer & Temperature Calibrator

The Fluke 1551A "Stik" Thermometer provides a temperature range— $50^{\circ}\text{C}$  to  $160^{\circ}\text{C}$  ( $-58^{\circ}\text{F}$  to  $320^{\circ}\text{F}$ ). The Fluke 1551A delivers repeatable temperature measurements accurate to  $\pm 0.05^{\circ}\text{C}$  over its full range. It is rated intrinsically safe for working in indoor or outdoor environments where potentially explosive gases may be present. It's a great choice for environments that aren't potential explosive as well such as the floor of a processing plant. The battery operated, portable reference thermometer is a great choice for daily checks of working thermometers, custody transfer temperature determination, PET calibration, LIG calibration, and temperature transmitter calibration and verification.

The stainless steel probe and digital readout are fixed together and calibrated as a system. The large backlit LCD display rotates  $90^{\circ}$  degrees making it easy to read from any angle. And a user-configurable stability/trend indicator lets you know when your temperature is stable enough to record an accurate measurement. A user-settable auto-off function extends typical battery life to up to 300 hours. And the low-battery indicator and stop-measure function

prevents erroneous measurements from being made due to a low battery. Plus you can easily and accurately calibrate the 1551A with a simple three-point calibration function.

**Other useful features:**

- Delivers 300-hour battery life
- Shows percent battery-life and low-battery indicators
- Includes NVLAP-accreditation and NIST-traceable calibration

## Specifications: Fluke 1551a Stik Thermometer & Temperature Calibrator

Specifications	
Temperature range	-50°C to 160°C (-58°F to 320°F)
Accuracy (1 year)	±0.05°C (±0.09°F)
Temperature resolution	Selectable: 0.1, 0.01, 0.001 (default 0.01)
Sample rate	Selectable: 0.5 seconds, 1 second, 2 seconds (default 1 second)
Readout temperature coefficient	Add ±10 ppm/°C of full scale temperature from -10 °C to 18 °C and 28 °C to 50 °C
Probe temperature coefficient	0.00385 Ω/Ω/°C nominal
Nominal probe resistance at 0 °C	100 Ω
Probe hysteresis	±0.01°C
Response time	4.8 mm diameter probe (3/16 in): 14 seconds 6.35 mm diameter probe (1/4 in): 21 seconds
Operating temperature range readout	-10°C to 50°C (14°F to 122°F)
Storage temperature	-20°C to 60°C (-4°F to 140°F) 0% to 95% RH, non-condensing
Display units	°C, °F
Sensor type	100 Ω thin-film RTD
Sensor length	□ 10 mm
Sensor position (from sheath tip)	3 mm (0.1 in)
Minimum immersion depth	Wet medium (liquid bath, thermowell with thermal compound) 70 mm (2.8 in) Dry medium (dry-well, thermowell without thermal compound) 120 mm (4.8 in)
Maximum immersion depth	50 mm (2 in) less than the total length. Make sure the last 50 mm of probe, nearest to the internal electronics of the device, are not put into the heat source.
Probe sheath material	Stainless steel
Optional data logging <sup>1</sup>	Up to 10,000 time-stamped readings stored to internal memory
Logging intervals <sup>1</sup>	2 seconds, 5 seconds, 10 seconds, 30 seconds, or 60 seconds

Damping	Moving average of the most recent 2 to 10 readings (ON/OFF, 2, 5, 10)
Communications	RS-232 stereo jack (access calibration parameters only)
AC power	None
DC power	3-AAA alkaline batteries See Users Manual for approved batteries
Battery life	Approximately 300 hours (12.5 days) of continuous operation with the backlight off.
Battery save (auto-off) range	Selectable from 1 to 30 minutes or can be disabled
Safety	IEC 60079-0, IEC 60079-11: Ex ib IIB T4 Gb; IEC 61010-1: Pollution Degree 2
Electromagnetic compatibility	<p>Intentional: IEC 61326-1: Portable Equipment; IEC 61326-2-2; CISPR 11: Group 1, Class B Group 1: Equipment has intentionally generated and/or uses conductively coupled radio frequency energy that is necessary for the intended function of the equipment itself.</p> <p>Class B: Equipment is suitable for use in domestic establishments and in establishments directly connected to a low voltage power supply network which supplies buildings used for domestic purposes.</p> <p>USA (FCC): 47 CFR 15 subpart B. This product is considered an exempt device per clause 15.103.</p>
Size (readout only)	125 mm x 62 mm x 35 mm (5 in x 2.5 in x 1.4 in)
Probe Size	1551A-9: 4.8 mm x 229 mm (3/16 in x 9 in) 1551A-12: 6.35 mm x 305 mm (1/4 in x 12 in) 1551A-20: 6.35 mm x 508 mm (1/4 in x 20 in)
Weight	196 g (6.9 oz)
Calibration (included)	NVLAP-accredited, NIST-traceable
Characterization	CVD
1. See ordering information for optional data logging configurations	

## Ordering information



### **Fluke 1551A-9**

Fluke Calibration 1551A-9 Stik Thermometer, Fixed RTD, -50°C to 160°C, 4.8 mm x 229 mm (3/16 in x 9 in)

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Includes:

- NVLAP-accredited report of calibration
  - User's Guide on CD-ROM
  - 3 AAA batteries
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### **Fluke 1551A-12**

Fluke Calibration 1551A-12 Stik Thermometer, Fixed RTD, -50°C to 160°C, 6.35 mm x 305 mm (1/4 in x 12 in)

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Includes:

- NVLAP-accredited report of calibration
  - User's Guide on CD-ROM
  - 3 AAA batteries
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### **Fluke 1551A-20**

Fluke Calibration 1551A-20 Stik Thermometer, Fixed RTD, -50°C to 160°C, 6.35 mm x 508 mm (1/4 in x 20 in)

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Includes:

- NVLAP-accredited report of calibration
  - User's Guide on CD-ROM
  - 3 AAA batteries
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### **Fluke 1551A-9-DL**

Fluke Calibration 1551A-9-DL Stik Thermometer, Fixed RTD, -50°C to 160°C, 4.8 mm x 229 mm (3/16 in x 9 in) with Datalog

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Includes:

- NVLAP-accredited report of calibration
  - User's Guide on CD-ROM
  - 3 AAA batteries
- 

### **Fluke 1551A-12-DL**

Fluke Calibration 1551A-12-DL Stik Thermometer, Fixed RTD, -50°C to 160°C, 6.35 mm x 305 mm (1/4 in x 12 in) with Datalog

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Includes:

- NVLAP-accredited report of calibration
  - User's Guide on CD-ROM
  - 3 AAA batteries
- 

### **Fluke 1551A-20-DL**

Fluke Calibration 1551A-20-DL Stik Thermometer, Fixed RTD, -50°C to 160°C, 6.35 mm x 508 mm (1/4 in x 20 in) with Datalog

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Includes:

- NVLAP-accredited report of calibration
  - User's Guide on CD-ROM
  - 3 AAA batteries
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