

Fluke 566 and 568 Thermometers

Technical Data

Two-in-one infrared and contact thermometers with an innovative dot matrix display.

Just when you thought advanced IR temperature measurement should be easier! With a straight-forward user interface and soft-key menus, the Fluke 566 and 568 make even complex measurements easy. Quickly navigate and adjust emissivity, start data logging, or turn on and off alarms, with just a few pushes of a button.

With a rugged, easy-to-use, ergonomic design, the Fluke 566 and 568 can stand up to tough industrial, electrical, and mechanical environments.



- Measure $-40\text{ }^{\circ}\text{C}$ to $800\text{ }^{\circ}\text{C}$ / $-40\text{ }^{\circ}\text{F}$ to $1472\text{ }^{\circ}\text{F}$ (568) or $-40\text{ }^{\circ}\text{C}$ to $650\text{ }^{\circ}\text{C}$ / $-40\text{ }^{\circ}\text{F}$ to $1202\text{ }^{\circ}\text{F}$ (566)
- Easily access advanced features with the soft-key buttons and graphical display
- Measure smaller objects from further away, with a distance-to-spot ratio of 50:1 (568) or 30:1 (566)
- Compatibility with all standard miniconnector K-type thermocouples allows you to preserve your thermocouple investments
- Confidently measure a wide variety of surfaces with the adjustable emissivity feature, including a built-in material table
- Capture up to 99 points (568) or 20 point (566) of data, for downloading and recalling later
- Easily trend and analyze data with included FlukeView® Forms software (568)
- See your data right away without leaving the site, using the USB (568) and your laptop for "Hands-free" datalogging
- Confidently troubleshoot equipment with 1 % measurement accuracy
- Versatile interface with six languages from which to choose
- Two-year warranty

Product specifications

	566	568
Infrared temperature range	-40 °C to 650 °C (-40 °F to 1202 °F)	-40 °C to 800 °C (-40 °F to 1472 °F)
Infrared accuracy	$< 0\text{ °C (32 °F): } \pm (1.0\text{ °C } (\pm 2.0\text{ °F}) + 0.1\%/1\text{ °C or °F});$ $> 0\text{ °C (32 °F): } \pm 1\% \text{ or } \pm 1.0\text{ °C } (\pm 2.0\text{ °F}), \text{ whichever is greater}$	
Display resolution	0.1 °C / 0.1 °F	
Infrared spectral response	8 μm to 14 μm	
Infrared response time	< 500 msec	
Thermocouple Type-K input temperature range	-270 °C to 1372 °C (-454 °F to 2501 °F)	
Thermocouple Type-K input accuracy	$-270\text{ °C to } -40\text{ °C: } \pm (1\text{ °C} + 0.2\%/1\text{ °C}) (-454\text{ °F to } -40\text{ °F: } \pm (2\text{ °F} + 0.2\%/1\text{ °F}))$ $-40\text{ °C to } 1372\text{ °C: } \pm 1\% \text{ or } 1\text{ °C } (-40\text{ °F to } 2501\text{ °F: } \pm 1\% \text{ or } 2\text{ °F}), \text{ whichever is greater}$	
D:S (distance to measurement spot size)	30:1	50:1
Laser sighting	Single-point laser < 1 mw output Class 2 (II) operation, 630 nm to 670 nm	
Minimum spot size	19 mm (0.75 in)	
Emissivity adjustment	By built-in table of common materials or digitally adjustable from 0.10 to 1.00 by 0.01	
Data storage with Date/Time stamp	20 points	99 points
PC Interface and cable	None	USB 2.0 with FlukeView® Forms software
Hi/Low alarms	Audible and two-color visual	
Min/Max/Avg/Dif	Yes	
Display	Dot matrix 98 x 96 pixels with function menus	
Backlight	Two levels, normal and extra bright for darker environments	
Trigger lock	Yes	
Switchable Celsius and Fahrenheit	Yes	
Power	2 AA/LR6 Batteries	2 AA/LR6 Batteries and USB when used with a PC
Battery life	If used continuously: laser and backlight on, 12 hours; laser and backlight off, 100 hours	
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)	
Storage temperature	-20 °C to 60 °C (-40 °F to 140 °F)	
Bead thermocouple Type-K range	-40 °C to 260 °C (-40 °F to 500 °F)	
Bead thermocouple Type-K accuracy	$\pm 1.1\text{ °C (2.0 °F)}$ from 0 °C to 260 °C (32 °F to 500 °F), typically within 1.1 °C (2.0 °F) from -40 °C to 0 °C (-40 °F to 32 °F)	