

The Fluke 568 Ex Intrinsically Safe Infrared Thermometer

Intrinsically safe
temperature measurements.
Anywhere in the world.

FLUKE®

Technical Data



The Fluke 568 Ex Intrinsically Safe Infrared Thermometer is the one product you can use in Class I Div 1 and Div 2 or Zone 1 and 2 hazardous environments anywhere in the world. Whether you work in petroleum, chemical, oil & gas, or pharmaceutical environments, the new 568 Ex allows you to carry the most trusted name in test tools into most Ex rated areas all around the globe.

With a straight-forward user interface and soft-key menus, the Fluke 568 Ex makes even complex measurements easy. Quickly navigate and adjust emissivity, save data or turn on and off alarms, with just a few pushes of a button. All in a single intrinsically safe tool certified by major rating bodies from around the world.

Product Highlights






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

- Meets intrinsically safe certifications in Class I Div 1 and Div 2 or Zone 1 and 2 hazardous environments from recognized safety agencies around the world
- Measure -40 °C to 800 °C (-40 °F to 1472 °F)
- Conductive Case for carrying the IR thermometer safely into hazardous area
- Easily access advanced features with the soft-key buttons and graphical display
- Measure small objects from further away, with a distance-to-spot ratio of 50:1
- Compatible with mini-connector K-type thermocouple (KTC) probe
- Confidently measure a wide variety of surfaces with the adjustable emissivity feature, including a built-in material table
- Capture up to 99 points of data
- Confidently troubleshoot equipment with $\pm 1\%$ measurement accuracy
- Versatile interface with five languages from which to choose
- Two-year warranty

Specifications

	Fluke 568 Ex Infrared Thermometer
Infrared temperature range	-40 °C to 800 °C (-40 °F to 1472 °F)
Infrared accuracy	< 0 °C (32 °F): ± (1.0 °C (± 2.0 °F) + 0.1°/1 °C or °F); ≥ 0 °C (32 °F): ± 1 % or ± 1.0 °C (± 2.0 °F), whichever is greater
Display resolution	0.1 °C/0.1 °F
Infrared spectral response	8 μm to 14 μm
Infrared response time	< 500 ms
Thermocouple Type-K input temperature range	-270 °C to 1372 °C (-454 °F to 2501 °F)
Thermocouple Type-K input accuracy	< -40 °C: ±(1 °C + 0.2 °/1 °C) ≥ -40 °C: ±1 % or 1 °C, whichever is greater < -40 °F: ±(2 °F + 0.2 °/1 °F) ≥ -40 °F: ±1 % or 2 °F, whichever is greater
D:S (distance to measurement spot size)	50:1
Laser sighting	Single-point laser
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	99 points
Hi/Low alarms	Audible and two-color visual
Min/Max/Avg/Dif	Yes
Display	Dot matrix with function menus
Backlight	Two levels, normal and extra bright for darker environments
Trigger lock	Yes
Switchable Celsius and Fahrenheit	Yes
Power	2 AAA/LR03 type-approved Batteries (For a list of type-approved batteries, refer to Product Safety Instructions)
Battery life	4 hours with laser and backlight on; 100 hours with laser and backlight off, at 100 % duty cycle
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	± 1.1 °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)

Safety Certifications

Agency	Safety rating
ATEX/IECEX 	Zone 1 and 2 IECEX EPS 13.0006X Ex ia IIC T4 Gb 0 °C ≤ Ta ≤ 50 °C EPS 13 ATEX 1.525 X II 2G Ex ia IIC T4 Gb
NEC-500/NEC-505 (pending) 	Class I Division 1 and 2 Class I, Division 1, Groups ABCD T4 Class I, Division 2, Groups ABCD T4 Class I, Zone 1, AEx ia IIC T4 Ex ia IIC T4 0 °C ≤ Ta ≤ 50 °C
GOST (pending) 	Zone 1 and 2 POCC DE.IB05.B Ex ia IIC T4 Gb X OT 0 °C ДЮ +50 °C EPS 13 ATEX 1 525 X II 2G Ex ia IIC T4 Gb 0 °C ≤ Ta ≤ 50 °C
PCEC (pending) 	Zone 1 and 2 PCEC Ex ia IIC T4 Gb CE13. EPS 13 ATEX 1 525 X II 2G Ex ia IIC T4 Gb 0 °C ≤ Ta ≤ 50 °C
INMETRO (pending) 	Zone 1 and 2 IEEx 13.0122X Ex ia IIC T4 Gb EPS 13 ATEX 1 525 X II 2G Ex ia IIC T4 Gb 0 °C ≤ Ta ≤ 50 °C

Ordering information

FLUKE-568 Ex Intrinsically Safe Infrared Thermometer

Included equipment

- K-type thermocouple bead probe
- Conductive IS hard carrying case
- User's manual

Fluke. The Most Trusted Tools in the World.

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