

The Fluke 568 Ex Intrinsically Safe Infrared Thermometer

Intrinsically safe
temperature measurements.
Anywhere in the world.

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): $\pm (1.0 \text{ °C} (\pm 2.0 \text{ °F}) + 0.1 \text{ °C or } \text{°F})$; $\geq 0 \text{ °C (32 °F): } \pm 1 \text{ % or } \pm 1.0 \text{ °C (\pm 2.0 °F)}$, 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: $\pm (1 \text{ °C} + 0.2 \text{ °C/1 °C})$ ≥-40 °C: $\pm 1 \text{ % or } 1 \text{ °C}$, whichever is greater <-40 °F: $\pm (2 \text{ °F} + 0.2 \text{ °F/1 °F})$ ≥-40 °F: $\pm 1 \text{ % or } 2 \text{ °F}$, 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 (-4 °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)

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 	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 	Zone 1 and 2 POCC DE.ГБ05.В Ex ia IIC T4 Gb X OT 0 °C DO +50 °C EPS 13 ATEX 1.525 X II 2G Ex ia IIC T4 Gb 0 °C ≤ Ta ≤ 50 °C
PCEC 	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 	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