FLUKE®

Fluke 572, 574 and 574-NI Infrared Thermometers

Non-contact temperature measurement

Technical Data

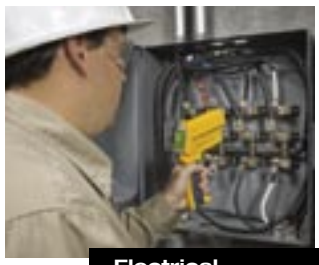


When the job demands precision and accuracy

Broad temperature range, superior optics and the advanced extra-bright three-dot laser sighting system make Fluke 570 series thermometers the most advanced portable thermometers in the industry.



Preventive Maintenance



Electrical

574-NI Nonincendive Model



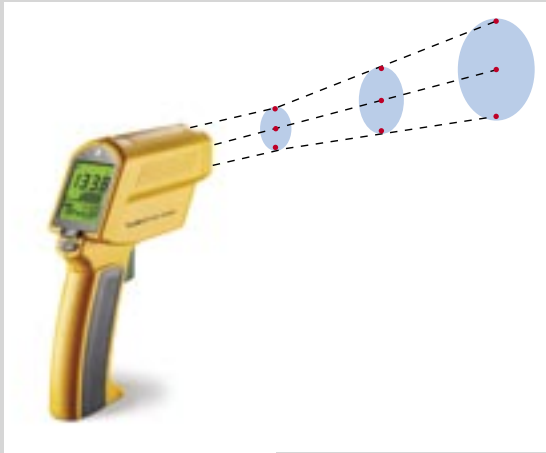
When safety is a concern and data logging and downloading are required, the Fluke 574 Nonincendive (NI) model thermometer is the product to choose. It has the same great features as the standard 574 model thermometers with the extra confidence of a Factory Mutual approval for use in hazardous environments*. The Fluke 574-NI thermometer, does not to release enough electrical or thermal energy to ignite flammable gases or vapors under normal operational and environmental conditions.
**See specification table for details.*



Advanced Display

- 100-point onboard temperature data logging capability
- 30 preset common material emissivity values
- Adjustable emissivity values (0.01 increments)
- Customizable log names, alarms, and emissivity

Advanced Sighting



Accurate measurements depend in part on accurately sighting a target. Fluke 570 series thermometers are the only thermometers with a sighting system designed to precisely track the infrared path as seen by the sensors. This enables the advanced coaxial three-dot laser sighting to accurately show both the center and the edges of the spot being measured, regardless of the thermometer's distance from the target.

This laser sighting also appears twice as bright to the human eye as normal lasers (while maintaining the same safety rating as less bright lasers), making precise sighting easier in a variety of lighting conditions and distances.

Close Focus Option

The Close Focus (CF) option lets you accurately measure very small areas at the focus point – where the IR beam narrows. Paired with the advanced coaxial laser sighting system, extremely small objects 6 mm (0.24 in) at 300 mm (11.4 in) can be easily measured. Ideal for electrical maintenance and refrigeration troubleshooting.

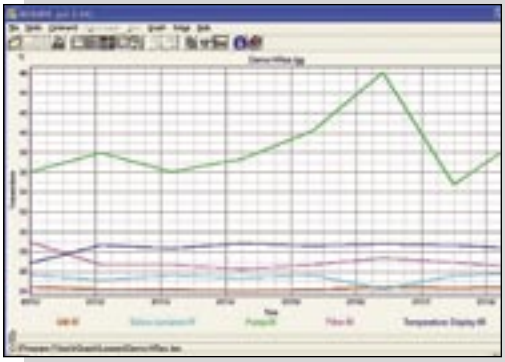




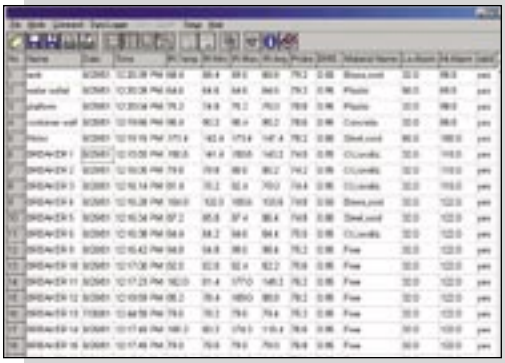
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Software for Condition Monitoring and Process Control

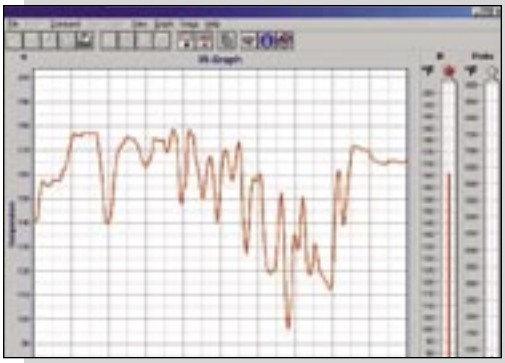
Visualize, systematically maintain and analyze temperature data using Windows® compatible software and a Fluke 574 or 574-NI IR thermometer.



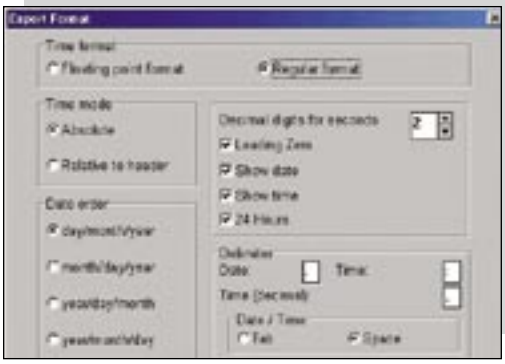
Easily see temperature trends and potential equipment problems by graphing data accumulated with the unit's data logging feature.



The software makes it easy to error-proof inspection routes by giving names, alarm points and emissivities to locations.



The 574 can be used to monitor, graph, and record real-time temperature changes with the software.



The software provides a convenient way to export temperature data files in a format that can be used by programs such as Access®, Excel®, and condition monitoring programs.

Graph

- Visually review data and spot trends instantly through graphs
- Simultaneously graph results while continuously monitoring temperatures
- Quickly compare temperatures of up to five log locations for trends or anomalies
- Display infrared and/or probe temperature trends over time
- View infrared and probe values continuously on thermometer sidebar

Data log

- Create recognizable names for inspection locations
- Track both infrared and probe temperature trends
- Tailor high/low alarms per individual inspection location
- View min, max, and average infrared and probe temperatures
- Create and customize emissivity tables for each inspection location
- Store up to 10,000 data points in a file

Reporting and documentation

- Customize report views and printing formats
- Generate time and date-stamp printouts for accurate records
- Export data as text files for integration with Maintenance, Repair and Operations (MRO) systems and other database programs

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Specifications

Specifications	Fluke 572	Fluke 574	Fluke 574-NI
Temperature range	-30 °C to 900 °C (-25 °F to 1600 °F)		
Accuracy	±0.75 % of reading or ±1 °C (±2 °F), whichever is greater (assumes ambient operating temperature of 23 °C (73 °F))		
Repeatability	≤ ±0.5 of reading or ≤ ±1 °C (±2 °F), whichever is greater		
Response time	250 mSec (95 % of reading)		
Spectral response	8 -14 microns, thermopile detector		
Adjustable emissivity (from 0.1 to 1.0 by 0.01)	•	•	•
Ambient operating temperature	0 °C to 50 °C (32 °F to 122 °F)		
Relative humidity	10 to 90 % at 30 °C (86 °F) non-condensing		
Storage temperature	-20 °C to 50 °C (-25 °F to 122 °F)		
Weight	480 g (1 lb 6 oz)		
Power	2 AA batteries	2 AA batteries/ AC adapter	2 AA batteries/ AC adapter
Power supply, RS232 Computer Cable, 1.5 m (60 in), K thermocouple probe	–	•	•
Laser Class II	3-dot laser sighting (meets IEC Class 2 and FDA Class II requirements)		
Distance-to-Spot (D:S)	60:1 (50:1 with Close Focus Option)		60:1
Minimum measurement diameter	19 mm (0.76 in) (6 mm (0.24 in) with Close Focus option)		19 mm (0.76 in)
Maximum and minimum temperature	•	•	•
Audible/visible high/low alarm	•	•	•
Differential and average temperature	–	•	•
Bar graph display	•	•	•
100-points-data logging	–	•	•
Display hold	•	•	•
LCD backlit	•	•	•
Temperature display	°C or °F selectable		
Display resolution	0.1 °C of reading up to 900 °C (0.2 °F up to 999.8 °F)		
Data graphing software (Windows® NT, 2000, XP compatible)	–	•	•
Data output: RS-232 or 1 mV per degree (°C or °F)	–	•	•
Hard carrying case	•	•	•
Tripod mount	1/4-20 UNC		
The 574-NI has a factory Mutual Nonincendive rating. The rating from this USA organization reads: "Class I, Division 2, Groups A, B, C, D; Class I, Zone 2 IIC; T4 Ta=50 °C when used with 1.5 V alkaline batteries." **WARNING:** Battery changes and RS-232 connection in non-hazardous locations only.	–	–	•
Warranty 2 Years, Conditional*	•	•	•

* Warranty duration may vary by country.

Ordering Information

Options
(all models)

- Close focus*
- NIST calibration certification

* Not available with 574-NI

Options
(574 and 574-NI)

- mV/degree output cable

Accessories
(all models)

- Padded pouch with belt clip

Accessories
(574 and 574-NI)

- PC software
- RS232 computer cable
- Plug-in power supply
- Thermocouple K probe

(Power supply and cable not approved by FM for use in hazardous locations)



Included with the Fluke 572 and 574 units:
- User's guide on CD
- Hardshell carrying case.

Fluke. *Keeping your world up and running.*

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