

## 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



### **Specifications**

Temperature range	Specifications	Fluke 572	Fluke 574	Fluke 574-NI
Accuracy	•			
Response time 250 mSec (95 % of reading) Spectral response 8 -14 microns, thermopile detector Adjustable emissivity (rom 0.1 to 1.0 by 0.01) Ambient operating temperature 0 °C to 50 °C (32 °F to 122 °F) Relative humidity 100 °C to 50 °C (32 °F to 122 °F) Relative humidity 2 -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 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) Maximum and minimum temperature Audible/visible high/low alarm 100-points-data logging - 0.0-points-data lo		$\pm 0.75\%$ of reading or $\pm 1$ °C ( $\pm 2$ °F), whichever is greater		
Spectral response Adjustable emissivity (from O.1 to 1.0 by O.01) Ambient operating temperature  Po C to 50 C (32 °F to 122 °F)  Relative humidity	Repeatability	$\leq \pm 0.5$ of reading or $\leq \pm 1$ °C ( $\pm 2$ °F), whichever is greater		
Adjustable emissivity (from 0.1 to 1.0 by 0.01) Ambient operating temperature  Relative humidity  Relative hatteries  Relative humidity  Relative hatteries  Relative humidity  Relative hold LCD set for 50 for 122 °F to 12	Response time	250 mSec (95% of reading)		
Irrôm 0.1 to 1.0 by 0.01   Ambient operating temperature   0°C to 50°C (32°F to 122°F)	Spectral response	8 -14 microns, thermopile detector		
Relative humidity  Storage temperature  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  Weight  -20 °C to 50 °C (-25 °F to 122 °F)  A batteries/ AC adapter  -20 °C to 50 °C (-25 °F to 122 °F)  AC adapter  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C to 50 °C (-25 °F to 122 °F)  -20 °C (-20 °F to 120 °F)  -20 °C (-20 °F)		•	•	•
Storage temperature	Ambient operating temperature	0 °C to 50 °C (32 °F to 122 °F )		
Weight   A80 g (1 lb 6 oz)	Relative humidity	10 to 90% at 30 °C (86 °F) non-condensing		
Power supply, RS232 Computer Cable, 1.5 m (60 in), K thermocouple probe  Laser Class II  Distance-to-Spot (D:S)  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  Display resolution  Data agraphing software (Windows* NT, 2000, XP compatible)  Data output: RS-232 or 1 mV per degree (°C or °F)  Hard carrying case  Tripod mount  The 574-NI has a factory Mutual Nonincendive rating. The rating from this USA organization reads: "Class I, Zone 2 IIC; T4 Ta=50 °C when used with 1.5 V alkaine batteries."  Power supply, RS232 Connection in non-hazardous locations only.  2 AA batteries/ AC adapter  4	Storage temperature	-20 °C to 50 °C (-25 °F to 122 °F)		
Power supply, RS232 Computer Cable, 1.5 m (60 in), K thermocouple probe  Laser Class II  Distance-to-Spot (D:S)  Minimum measurement diameter  Maximum and minimum temperature Audible/visible high/low alarm Differential and average temperature Audible/visible high/low alarm Differential and average temperature Audiblay  Bar graph display  Display hold  LCD backlit  Temperature display  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  The \$74-NI has a factory Mutual Monincendive rating. The rating from this USA organization reads: "Class I, Zone 2 IIC, "T4 Ta=50 °C when used with 1.5 V alkning the read of	Weight			
Computer Čable, 1.5 m (60 in), K thermocouple probe  Laser Class II  Distance-to-Spot (D:S)  60:1 (50:1 with Close Focus Option)  Minimum measurement diameter  19 mm (0.76 in)  (6 mm (0.24 in) with Close Focus option)  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  Display resolution  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  The 574-NI has a factory Mutual Nonincendive rating. The rating from his 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."  -	Power	2 AA batteries		
Distance-to-Spot (D:S)  60:1 (50:1 with Close Focus Option)  Minimum measurement diameter  19 mm (0.76 in) (6 mm (0.24 in) with Close Focus option)  Maximum and minimum temperature  Audible/visible high/low alarm Differential and average temperature  Bar graph display  100-points-data logging  -	Computer Cable, 1.5 m (60 in),	_	•	•
Minimum measurement diameter    19 mm (0.76 in)	Laser Class II			
Maximum and minimum temperature  Audible/visible high/low alarm  Differential and average temperature  Bar graph display  O-points-data logging  Display hold  LCD backlit  Temperature display  O1 °C or °F selectable  Display resolution  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  The 574-NI has a factory Mutual Nonincendive rating. The rating from this USA organization reads: "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.	Distance-to-Spot (D:S)	60:1 (50:1 with Close Focus Option) 60:		60:1
Audible/visible high/low alarm  Differential and average temperature  Bar graph display  100-points-data logging  - • • •  Display hold  LCD backlit  Temperature display  Display resolution  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  The 574-NI has a factory Mutual Nonincendive rating. The rating from this USA organization reads: "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.	Minimum measurement diameter			
Differential and average temperature  Bar graph display  100-points-data logging  - • • •  Display hold  LCD backlit  Temperature display  Display resolution  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  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.	Maximum and minimum temperature	•	•	•
Bar graph display  100-points-data logging  -	Audible/visible high/low alarm	•	•	•
Display hold  LCD backlit  Temperature display  Display resolution  Display resolution  O.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  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.	Differential and average temperature	_	•	•
Display hold  LCD backlit  Temperature display  °C or °F selectable  Display resolution  O.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  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.	Bar graph display	•	•	•
LCD backlit  Temperature display  Oc or °F selectable  Display resolution  O.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  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.	100-points-data logging	_	•	•
Temperature display  Display resolution  O.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  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.	Display hold	•	•	•
Display resolution  O.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  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.	LCD backlit	•	•	•
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  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.	Temperature display	°C or °F selectable		
Warning: Battery changes and RS-232 connection only.	Display resolution	$0.1~^{\circ}\text{C}$ of reading up to $900~^{\circ}\text{C}$ (0.2 $^{\circ}\text{F}$ up to $999.8~^{\circ}\text{F}$ )		
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.		_	•	•
Tripod mount  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.		_	•	•
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.	Hard carrying case	•	•	•
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.	Tripod mount	1/4-20 UNC		
RS-232 connection in non-hazardous locations only.	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	_	-	
Warranty 2 Years, Conditional* • •	RS-232 connection in non-hazardous			
	Warranty 2 Years, Conditional*	•	•	•

<sup>\*</sup> 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.