

Wahl HEAT SPY®

Hand Held Non-Contact
Infrared Thermometers



DHS35XT shown with
LCD display and
telescopic sight

Wahl introduced the **FIRST**
portable non-contact
infrared thermometer
in the world, and
continues to provide
the wide selection and
expert application
support you require.

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High Performance Infrareds

DHS24 • DHS26 • DHS28 Series

Since Wahl introduced the **FIRST** digital portable infrared thermometer thousands have been in use trouble-free for years.

With NIST traceable accuracy, **Wahl's DHS24, DHS26, DHS28 Heat Spy® Infrared Thermometers** are the most advanced, easy to use and durable Infrareds in the world.

Their precision ground mirrors are protected by rare-earth germanium filters, and tightly focus infrared energy on the patented detector for accuracy as accurate as $\pm 0.3\%$ full scale with $1^\circ\text{F} / ^\circ\text{C}$ resolution.

Rugged, cast and extruded aluminum case, provides shielding against stray EMF from machinery and engines.

Temperature readings are updated 3 times per second on your choice of standard LCD display, or LED for low light levels.

High reliability and higher accuracy than others.



Telescopic Sight

For long distances (20 to 100 feet) or precise aiming on small objects such as bolts, thick cable, tubing, forgings, and castings. The Heat Spy "T" version telescopic sight provides sighting on the centerline of the infrared optics.



Switchable Laser Aiming Sight

Highly visible narrow red light beam pinpoints objects up to 100 feet away. Good choice for locating hot spots and for centering on targets.



Enclosed Optical Sight

For most applications, the standard enclosed optical sight provides target definition at 4 feet and 20 feet with parallax correction.



Features for All Models

- Adjustable Emissivity
- Maxitemp® Peak Temperature Hold
- Self Test
- Auto Calibration
- Output to Recorder
- AC Adapter
- Input Jack for Battery Pack on non-X models
- $^\circ\text{F}/^\circ\text{C}$ Switchable
- NIST Traceable Accuracy
- Rugged Aluminum Housing
- Sighting and Display Options

Display Options and Modes

Display options for LCD and LED. LCD is best for most uses. Select LED for low light conditions.



Measured temperature is updated 3 times per second on large LCD.



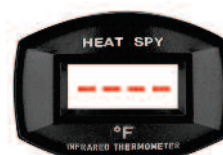
PEAK holds highest measured temperature, and is especially useful in high temperature scans.



TEST mode flashes room temperature to show Heat Spy is working properly.



BATT displays low battery. HLP flashes when instrument is out of specification.



---- indicates measurement is over or under the range of the instrument.

DHS24 • DHS26 • DHS28 Series

High Performance Infrareads

DHS24 • DHS26 • DHS28 Series Features

- Superior accuracy and sensitivity between 0° to 1000°F (-20° to 550°C)
- Accuracy of $\pm 0.3\%$ of full scale
- Repeatability of $\pm 1^\circ\text{F}$
- Enclosed Optical, Closed Laser, or Telescopic Sighting options
- Anti-reflective filter for accurate use in strong sunlight or other light sources
- Applications include all normal materials, including glass surfaces
- Not affected by IR heaters, carbon dioxide or water vapor. Will not measure through glass
- 3 Year Warranty

Please see page 5 for a complete listing of DHS24 specifications.

DHS26 Series Additional Features

- Wider Temperature Range: 0° to 2000°F (-20° to 1000°C)
- Accuracy of $\pm 0.3\%$ of full scale
- Application for all normal material, including glass surfaces
- Sighting, Display, and FM options available
- 3 Year Warranty

Please see page 5 for a complete listing of DHS26 specifications.

DHS28 Series Additional Features

- Ultra High Range: 32° to 2500°F (0° to 1380°C)
- Specialized tool for measurement of glass gobs, heat treating, annealing, welding, and metal ingot operations, does not measure through glass ports
- Accuracy of $\pm 0.3\%$ of full scale
- Repeatability is 3°F
- 3 Year Warranty
- Telescopic Sight option recommended

Please see page 5 for a complete listing of DHS28 specifications.



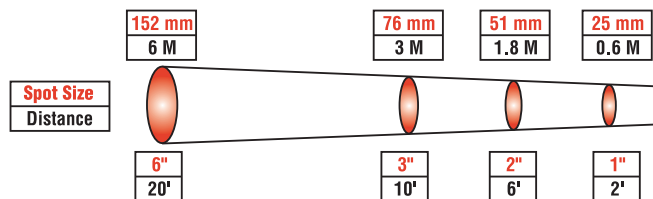
DHS24L



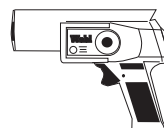
DHS24XT



DHS28XT



DHS24, 26, and 28 Series Heat Spy
Distance to Spot Ratio: 20:1



DHS29X • DHS35XT Series



DHS29X

DHS35XT Features

- Measures furnace tube temperatures through open ports
- High Temperature Range: 800° to 3200°F (426° to 1760°C)
- Narrow spectral range of 3.5 - 4.1 microns
- Specialized Reflex Sighting to enable readings from very small target areas
- Minimizes errors caused by the reflectance from walls and flames
- Does not measure through glass ports
- Best choice for high temperature general purpose operations
- Offered with telescopic sighting system only
- 3 Year Warranty

Please see page 5 for a complete listing of DHS35XT specifications.

Designed for measurements in the processing of Ferrous and Non Ferrous Metal, the **Wahl DHS29X and DHS35XT Heat Spy®** models are built from the bottom up for precise, accurate measurement of high temperatures under the toughest factory conditions. Rugged, cast and extruded aluminum case, provides shielding against stray EMF from machinery and engines.

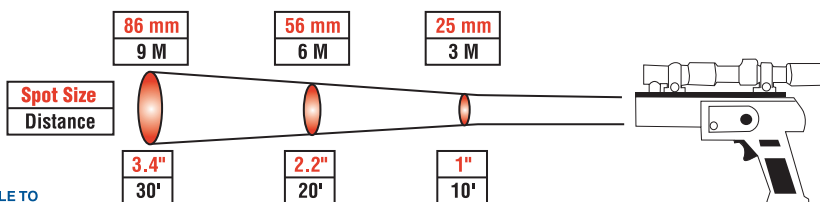
DHS29X Series Features

- Measures through glass ports, flames, and products of combustion
- High Temperature Range: 900° to 3200°F (482° to 1760°C)
- Narrow spectral range of 2.1 - 2.5 microns for general purpose, high temperature measurement through glass
- Small target resolution and long telescopic range
- Aim through ports in furnace walls at refractories, glass gobs, furnace tubes, ceramics, billets, slag, and annealing materials
- Sapphire window protects the silicon optics from heat and contamination
- 3 Year Warranty

Please see page 5 for a complete listing of DHS29X specifications.



DHS35XT



DHS29X, and 35XT Series Heat Spy
Distance to Spot Ratio 100:1



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PW1230
02/11 Rev B

DHS24 • DHS26 • DHS28 DHS29X • DHS35XT Series

High Performance Infrareds

Specifications					
Model Number	DHS24 (LED) DHS24X (LCD)	DHS26 (LED) DHS26X (LCD)	DHS28X (LCD)	DHS29X (LCD) DHS29XT (LCD)	DHS35XT (LCD)
Temperature Range	0° to 1000°F -20° to 550°C	0° to 2000°F -20° to 1000°C	32° to 2500°F 0° to 1380°C	900° to 3200°F 482° to 1760°C	800° to 3200°F 426° to 1760°C
Distance to Spot Ratio	20:1			100:1	
Spectral Range	8 to 14 μm	8 to 14 μm	8 to 14 μm	2.1 to 2.5 μm	3.5 to 4.1 μm
Emissivity	Adjustable 0.2 - 1.0				
Accuracy at 77°F ±5°	± 0.3% FS				± 0.5% FS
Repeatability	± 1°F	± 2°F	± 3°F		
Resolution	1°F / °C				
Response Time to 95% of Reading	1 second				
Operating Temperature	25° to 125°F (-4° to 52°C)				
Temperature Coefficient	± 0.1 deg/deg				
Practical Working Distance	0 to 40 ft.		0 to 40 ft. (T) 150 ft.	0 to 150 ft.	
Sighting System	Enclosed, Laser, or Telescope			Enclosed or Telescope	Telescope Only
Output to Recorder	1mV/deg.				
Power Supply	LCD 1 - 9V Alkaline Battery, LED 2 - 6V Batteries				
Battery Life	40 hours Laser Operation Will Reduce Battery Life			40 hours	
Weight (Lbs.)	2.2 lbs (0.99 kg)	2.2 lbs (0.99 kg), (T) 2.8 lbs (01.27 kg)		2.5 lbs (1.13 kg) (T) 3.0 lbs (1.36 kg)	3.0 lbs (1.36 kg)
Included Accessories	User Manual, LCD, 1-9V Battery, LED, 2-6V Rechargeable Batteries, Carrying Case, Trigger Lock, AC Adapter (Specify 110V or 220V AC)				

Specifications are subject to change without notice

Model No. Suffix Codes and Availability								
Suffix	No Suffix	X	L1	L5	XL1	XL5	T	XT
Heat Spy Series	F&C, LED enclosed optical sight	F&C, LCD enclosed optical sight	F&C, LED laser sight 1mW	F&C, LED laser sight 5mW	F&C, LCD laser sight 1mW	F&C, LCD laser sight 5mW	F&C, LED telescopic sight	F&C, LCD telescopic sight
DHS24	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DHS26	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DHS28	NA	Yes	NA	NA	Yes	Yes	NA	Yes
DHS29	NA	Yes	NA	NA	NA	NA	NA	Yes
DHS35	NA	NA	NA	NA	NA	NA	NA	Yes

Specifications are subject to change without notice



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Wahl is pleased to introduce six models to our famous line of Heat Spy® Infrared Thermometers, the **DHS85XL**, **DHS115XL**, **DHS115XEL**, **DHS135XEL**, **DHS215XEL** and the **NEW! DHS235XEL** (see pg 9). These incredibly accurate and robust instruments will help you diagnose any problem, and prevent costly equipment downtime. The variety of features enable you to select the most appropriate Heat Spy® for your application.

DHS85XL



DHS85XL Model Features

- The most economical and highest performing Heat Spy in its class
- Used for Close Range: 8:1 (D:S Ratio)
- Maximum temperature: 619°F (326°C)
- Ultra low power consumption in shut-down mode

Note: The DHS85XL replaces discontinued model DHS100X.

DHS115XL Model Features

- Used for Short Range: 12:1 (D:S Ratio)
- Temperature Range to 999°F (535°C)
- Easy Aiming
- Quick Response
- Easy location of hot spots
- Ultra low power consumption in shut-down mode

DHS115XEL Model Extended Features

Same great features as the 115XL, *Plus:*

- Includes Hi, Low Alarms
- MAX/MIN/AVG/ΔT calculations
- Adjustable Emissivity for better accuracy
- 10 points of memory to record temperature
- Electronic trigger lock which allows readings to be taken continuously



DHS115XEL
and DHS115XL

Note: The DHS115XL and DHS115XEL replace discontinued models DHS100XL and DHS100XEL.

APPLICATIONS

- Quality/Non-Destructive Testing
- Electrical Troubleshooting
- Manufacturing Process Control
- Diesel/Fleet Maintenance
- Plant/Facilities Maintenance
- HVAC/Refrigeration
- Automotive Repair and Diagnostics



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DHS135XEL • DHS215XEL and **NEW! DHS235XEL**



Easy to read digital display on models DHS135 and DHS215 and DHS235.



DHS215XEL shown with optional TC869 - 45° Spring Articulated Surface Probe, rugged Delrin® handle, ANSI mini-connector and 5-foot flexible compensated cable. For more information on optional probes visit www.palmerwahl.com.

Model Features

DHS135XEL

- High Temperature 1832°F (1000°C)
- Long Range: 30:1 (D:S Ratio)

DHS215XEL

- High Temperature 1832°F (1000°C)
- Extra Long Range: 50:1 (D:S Ratio)

NEW! DHS235XEL

- Extra High Temperature 2732°F (1500°C)
- Extra Long Range: 50:1 (D:S Ratio)

All Models offer:

- 10 point memory log that can save current temperature
- MAX/MIN/AVG/ΔT
- Electronic Trigger Lock allows continuous readings
- Ultra low power consumption in shut-down mode

DHS215XEL Model Additional Features

- Type K Thermocouple ANSI mini-connector input for probe to determine emissivity
- Heat Spy® Data Logging Software

DHS215XEL Heat Spy® Data Logging Software



DHS215XEL interfaced with a laptop computer via USB cable and Heat Spy® Data Logging software for online data acquisition. Shown with optional tripod.

The DHS215XEL can be interfaced with a computer via the supplied USB cable and Heat Spy® Data Logging software. The software provides a convenient way to log temperature readings at user selectable time sampling intervals of 1 second to 999 hours in

High Performance Infrared Thermometer				
Item	Date	Time	Temperature	Unit
1	5/4	17:39:59	75.9	Fahrenheit
2	5/4	17:40:29	94.3	Fahrenheit
3	5/4	17:40:59	94.3	Fahrenheit
4	5/4	17:41:29	102.2	Fahrenheit
5	5/4	17:41:59	90.7	Fahrenheit

1-second increments. Temperature data is generated with a date and 24-hour format time stamp in a text file that can be used by programs such as Excel, Access, and Word for further analysis, graphing and report writing.



DHS85XL • DHS115XL • DHS115XEL DHS135XEL • DHS215XEL • DHS235XEL

Specifications						
Model Number	DHS85XL	DHS115XL	DHS115XEL	DHS135XEL	DHS215XEL	NEW! DHS235XEL
Description	Close Range	Mid Temperature Short Range	Mid Temperature Short Range Extended Features	High Temperature Long Range Extended Features	High Temperature Extra Long Range Extended Features USB, Type K Probe	Extra High Temperature Extra Long Range Extended Features
Temperature Range	-4° to 619°F -20° to 326°C	-25° to 999°F -32° to 535°C	-25° to 999°F -32° to 535°C	-58° to 1832°F -50° to 1000°C	-58° to 1832°F -50° to 1000°C	-58° to 2732°F -50° to 1500°C
Distance to Spot Ratio	8:1	12:1		30:1	50:1	
Spectral Range	5 to 14µm	5 to 14µm	5 to 14µm	8 to 14µm	8 to 14µm	8 to 14µm
Emissivity	Fixed at 0.95	Adjustable 0.10 to 1.00		Adjustable 0.10 to 1.00	Adjustable 0.10 to 1.00	Adjustable 0.10 to 1.00
Accuracy	±2% of reading or 2°C whichever is greater	±5°F (±3°C) from -25° to -4°F (-32° to -20°C) ±3°F (±2°C) from -4° to 212°F (-20° to 100°C) ±2% from 212° to 999°F (100° to 535°C)		±5°F (±3°C) from -58° to -4°F (-50° to -20°C) ±3°F (±2°C) from -4° to 212°F (-20° to 100°C) ±2% above 212°F (100°C)		
Repeatability	±2°F (±1°C)	±2°F (±1°C)	±2°F (±1°C)	±2°F (±1°C)	±2°F (±1°C)	±2°F (±1°C)
Resolution	0.1°F (0.1°C)	0.1°F (0.1°C)	0.1°F (0.1°C)	0.1°F (0.1°C)	0.1°F (0.1°C)	0.1°F (0.1°C)
Response Time	500 ms.	500 ms.	500 ms.	500 ms.	500 ms.	500 ms.
Operating Temperature	32° to 122°F (0 to 50°C) 10 - 90% RH	32° to 122°F (0 to 50°C) 10 - 90% RH	32° to 122°F (0 to 50°C) 10 - 90% RH	32° to 122°F (0 to 50°C) 10 - 90% RH	32° to 122°F (0 to 50°C) 10 - 90% RH	32° to 122°F (0 to 50°C) 10 - 90% RH
Storage Temperature	14° to 140°F (-10° to 60°C)	14° to 140°F (-10° to 60°C)	14° to 140°F (-10° to 60°C)	14° to 140°F (-10° to 60°C)	14° to 140°F (-10° to 60°C)	14° to 140°F (-10° to 60°C)
LCD Backlight	Yes	Yes	Yes	Yes	Yes	Yes
Dual Display	NA			Yes	Yes	Yes
°F & °C Selectable	Yes	Yes	Yes	Yes	Yes	Yes
Laser Sight Switchable	User Selectable, Class II Laser, less than 1mW					
Auto Power Off	Automatically after approx. 6 seconds	Automatically after approx. 6 seconds	Automatically after approx. 6 seconds	Automatically after approx. 6 seconds	Automatically after approx. 30 seconds	Automatically after approx. 6 seconds
Max/Min/Avg/ΔT	No	No	Yes	Yes	Yes	Yes
Auto Measuring	No	No	Yes	Yes	Yes	Yes
Audible Alarm	No	Yes	Yes	Yes	Yes	Yes
10 Point Memory	No	No	Yes	Yes	Yes	Yes
Electronic Trigger Lock	No	Yes	Yes	Yes	Yes	Yes
Tripod Mount	Yes	No	No	Yes	Yes	Yes
USB Data Output	No	No	No	No	Yes	No
Type K Thermocouple	No	No	No	No	Yes	No
Operating Software	NA				Software Cd Included	NA
Power Supply	9V Battery	9V Battery	9V Battery	9V Battery	9V Battery	9V Battery
Battery Life with Laser Off	16 hrs for continuous operation	15 hrs for continuous operation		15 hrs for continuous operation		
Dimensions	5.9 x 5.2 x 1.8" (150 x 133 x 45mm)	6.8 x 3.6 x 1.8" (173 x 93 x 45mm)		7.9 x 5.0 x 1.9" (200 x 127 x 47mm)		6.7 x 5.2 x 1.8" (200 x 132 x 45mm)
Weight with Battery	4.7 oz (135g)	7.8 oz (220g)		12.7 oz (360g)		11.6 oz (330g)
Included Accessories	User Manual, 9V Battery	User Manual, 9V Battery, Soft Pouch		User Manual, 9V Battery, Carrying Case, and Wrist Strap	User Manual, 9V Battery, Carrying Case, Wrist Strap & Software	User Manual, 9V Battery, Carrying Case, and Wrist Strap
					USB Cable, Type K Probe*	
Optional Accessories	Soft Pouch	No		No	Optional T/C Probes**	No
* Wire Bead thermocouple - 1 meter in length, ** For more information on optional probes visit www.palmerwahl.com .						

* Wire Bead thermocouple - 1 meter in length, ** For more information on optional probes visit www.palmerwahl.com.

Specifications are subject to change without notice

NEW! DHS125XEL Hybrid Infrared

Hybrid Infrared

The **NEW! DHS125XEL Hybrid Infrared** from Wahl is an intelligent contact and non-contact infrared thermometer which goes beyond the conventional temperature measurement capabilities of other infrared thermometers.

Specifications	
Model Number	DHS125XEL
Temperature Range	-25° to +1400°F (-32° to +760°C)
Distance to Spot Ratio	12:1
Emissivity	Adjustable 0.1 to 1.0
Accuracy	±5°F (±3°C) From -25° to -4°F (-32° to -20°C)
Ambient Operating Temperature of 77°F (25°C)	±3°F (±2°C) From -4° to 212°F (-20° to 100°C)
	±2% Above 212°F (100°C)
Repeatability	±1°C (±2°F)
Resolution	0.1°C (0.1°F)
Response Time	500 ms
Operating Temperature	0° to 50°C (32° to 122°F), 10 to 95% RH
Auto Power Off	Automatically after approx. 6 seconds
Thermopile	5 to 14 µm
eSmart	Yes
Thermocouple Connection (K)	Yes
Thermocouple Range	-200° to 1380°C
Thermocouple Accuracy	±1.5% +1 degree
°F/°C Switchable	Yes
LCD Backlight	Yes
Color Identification Signal	Yes
Laser Sight Switchable	Yes
Audio Alarm	Yes
Dual Display	Yes
Trigger Lock Function	Yes
Max/Min/Avg/ΔT	Yes
Auto-Measuring	Yes
10 Point Memory	Yes
Tripod Mount	Yes
Power Supply	9V, 006P, IECF22, NEDA1604
Dimensions	7.09 x 5.12 x 1.57 inches (180mm x 130mm x 40mm)
Weight	Approximately 6.87 ounces (195 grams)
Included Accessories	User Manual, 9V Battery and Carrying Case
Optional Accessories	see Wahl Heat Prober® Thermocouple probes for surface measuring

Specifications subject to change without notice

Applications

- Electrical Troubleshooting
- Automotive Maintenance
- HVAC Energy Audits
- Food Safety and Processing
- Test Terminals on Circuits
- Maintenance & Inspections



• **eSmart Technology:** Using an external Type K Thermocouple as a reference, the built-in software determines the emissivity of the target object, and automatically sets the emissivity of the instrument.

• **Color Identification Signal Technology:** Display backlight changes to red when alarm set-points are exceeded.

• **Ultra low power consumption.**

• **Extended time measuring reliability.**

• **Electronic Trigger Lock Function.**

• **Tripod Mount:** For hands free monitoring.

DHS125XEL shown with optional Wahl Heat Prober® TC869 45° Spring Articulated Surface Probe.

For more information on optional probes visit www.palmerwahl.com.



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High Precision Infrared

DHS520B High Precision Infrared with Bluetooth® Communications



The **DHS520B** features a 2-position trigger which takes and stores temperature readings.

The **Wahl DHS520B Series Heat Spy®** models are general purpose, high precision, portable infrared thermometers, designed for accurate high temperature measurement in the range of 1022° to 5432°F (550° to 3000°C).

The measured temperature is displayed in four simultaneous modes: continuous, peak, mean, and valley, with user selected mode for the viewfinder display. The bright, back-lit external display panel indicates status and configuration of thermometer.

Accurate sighting is ensured by the clear, wide angle (9°) field of view and small, clearly defined (1/3°) measurement area. Focusing is variable from 1m to infinity, with close focus options available using auxiliary lenses. The reflex optical system gives precise definition of target spot and simultaneous backlit display of user selected values in the viewfinder.

Emissivity compensation is provided via the icon-based menu system. The operating waveband has been carefully chosen to minimize errors due to uncertainty in emissivity and the effects of atmospheric vapor components.

Features

- Advanced spectral filtering enhances performance
- Long term, drift free measurement
- High accuracy and repeatability
- Digital signal processing
- Flexible user configuration
- Robust - Ideal for industrial use

Benefits

- No contamination, interference or damage to process or material
- Accurate, reliable and stable temperature measurement to aid product quality control
- Maximize production rates and efficiency

Target Size	
Distance: ft (m)	Target Size: in (mm)
328 (100)	22.6 (576)
164 (50)	11.2 (287)
65.6 (20)	4.48 (114)
32.8 (10)	2.24 (57)
22.9 (7)	1.53 (39)
16.4 (5)	1.10 (28)
6.5 (2)	0.43 (11)
3.2 (1)	0.18 (4.8)

Target size can be reduced to a minimum of 0.4mm/0.016in with optional close-up lenses.

Specifications	
Model Number	DHS520B - DHS520GB*
Temperature Range	1022° to 5432°F (550° to 3000°C)
Distance to Spot Ratio	20:1, 4:1 with closeup lens
Spectral Response	1 µm with advance spectral filtering
Emissivity	0.10 to 1.20 in 0.01 step graduations
Accuracy	< 0.25% (K) of reading
Repeatability	< 0.1% (K) of reading
Response Time	30 ms (98% response)
Operating Temp Range	32° to 122°F (0° to 50°C)
Measuring Mode	CONT, AVG, MAX & MIN
Optical System	9° Field of View with 1/3° (180:1 to 98% measurement energy) area. Eyepiece adjustable: -3.75 to +2.5 diopters
Focusing Range	39.3" / 1m to infinity 17.7 to 24.5" / 450 to 620mm with optional 8.5" / 215mm fixed focus close-up lens
Display Update Time	0.5 seconds
Sealing	IP54 / NEMA 3
Output	Bluetooth Communications
Power Supply	1 9V Battery
Dimensions	8.25 x 2.75 x 5.5 inches (210 x 70 x 140mm)
Weight	Approximately 6.87 ounces (195 grams) 0.83kg/1.8lb
Included Accessories	Lens Cap, Dark Glass Eye Protection Filter (G model includes 2 filters), Wrist Strap, 9V Battery and User Manual
Optional Accessories	User Manual, 9V Battery, Waterproof Carrying Case, Close-up Lenses, Datalogger Software

* Model DHS520GB includes 2 dark glass eye protection filters for use in the Glass industry.

Specifications subject to change without notice

Note: The DHS520 replaces discontinued model DHS54.

Applications

- Heat Treatment
- Semi-Conductors
- Any Industrial use
- Refractories
- Steel
- Glass



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NEW! Wahl Heat Spy® High Temperature • High Accuracy Infrared Thermometers



DHS1600R
Two Color
Infrared

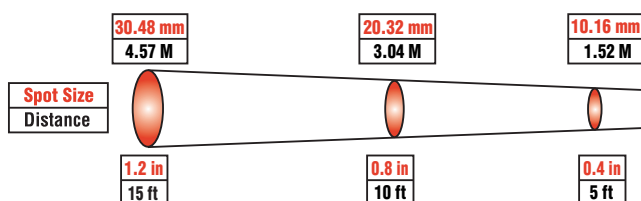
Wahl is pleased to introduce three new High Temperature, High Accuracy models to our line of Heat Spy® Infrared Hand-held Thermometers. Extremely Accurate, High Temperature models are widely used for non-contact temperature measurement in many industries.

The **NEW! Wahl DHS1600R Extra High Temperature** infrared features **TWO-COLOR** high-performance microprocessor technology. In addition to the optical sighting system, this thermometer offers high accuracy, stability, and rapid response. Widely used for temperature measurement in Process Operations, Metal Refining, Petro-chemical Furnaces, Semiconductor, Chemical Processing, Preventive Maintenance, Stacks, and Kilns. Ideal for difficult to measure targets in applications such as: Ceramics, Chemical Furnaces, Foundry & Iron and Reactors.

DHS1600R Features

- **Two Color - Extra High Temperature** 1472° to 2912°F (800° to 1600°C)
- Distance to Spot 150:1
- MAX calculations
- Adjustable Emissivity in increments of 0.01 for the highest accuracy in Single Color Mode
- Accurate measurement of partially obstructed targets
- Measurement is not affected by smoke, steam, particulates or movement
- Measures targets smaller than the instrument field of view.

The **NEW! Wahl DHS1900 Extra High Temperature** and **DHS3000 Super High Temperature** are hand held infrared thermometers used for the Steel and Aluminum industries. Both models have an RS485 interface and 4-20mA analog signal output through two mini-USB ports below the LCD.



DHS1600R • DHS1900 • DHS3000 Heat Spy
Distance to Spot Ratio 150:1



DHS1900 and
DHS3000

DHS1900 Features

- **Extra High Temperature** 662° to 3452°F (350° to 1900°C)
- **Used for Aluminum Processing**
- Distance to Spot 150:1
- Includes Hi, Low Alarms
- MAX/MIN/AVG/ΔT calculations
- Adjustable Emissivity for better accuracy

DHS3000 Features

- **Super High Temperature** 1112° to 5432°F (600° to 3000°C)
- **Used in the Steel Industry**
- Distance to Spot 150:1
- Includes Hi, Low Alarms
- MAX/MIN/AVG/ΔT calculations
- Adjustable Emissivity for better accuracy



Calibration Services available

DHS1900 • DHS3000 • DHS1600R Specifications

Specifications			
Model Number	DHS1900	DHS3000	DHS1600R
	Extra High Temperature	Super High Temperature	Two Color, Extra High Temperature
Temperature Range	662° to 3452°F 350° to 1900°C	1112° to 5432°F 600° to 3000°C	1472° to 2912°F 800° to 1600°C
Spectral Range	1.6µm	1µm	Single Color: 0.95µm - 1.1µm Two Color: 0.85µm - 1.1µm / 0.95µm - 1.1µm
Distance to Spot Ratio	150:1	150:1	150:1
Emissivity	0.1 to 1.0 adjustable	0.1 to 1.0 adjustable	0.2 to 1.0 adjustable in increments of 0.01 in Single Color Mode
Sighting	Coaxial Optical and Laser	Coaxial Optical and Laser	Coaxial Optical and Laser
Display Hold	The display holds for 8 seconds after release of trigger	The display holds for 8 seconds after release of trigger	The display holds for 8 seconds after release of trigger
Accuracy	±1% of reading	±1% of reading	±1% of reading
Repeatability	±0.5% of reading	±0.5% of reading	±0.3% of reading
Resolution	1.8°F (1.0°C)	1.8°F (1.0°C)	1.8°F (1.0°C)
Response Time	≤ 200 mS	≤ 200 mS	≤ 200 mS
Operating Temperature	-0.4° to 140°F -18° to 60°C	-0.4° to 140°F -18° to 60°C	32° to 122°F 0° to 50°C
Storage Temperature	-0.4° to 140°F -18° to 60°C	-0.4° to 140°F -18° to 60°C	32° to 122°F 0° to 50°C
LCD Backlight	Yes	Yes	Yes
°F & °C Switchable	Yes	Yes	Yes
Laser Sight Switchable	Yes	Yes	N/A
Max/Min/Avg/ΔT	Yes	Yes	Max
Audible Alarm	High and Low	High and Low	High and Low
Memory	Yes	Yes	No
Tripod Mount	Yes	Yes	Yes
Output	4-20mA; RS485; Mini-USB	4-20mA; RS485; Mini-USB	No
Power Supply	9V (NEDA 1604)	9V (NEDA 1604)	9V (NEDA 1604)
Battery Life	15 hrs with normal use	15 hrs with normal use	8 hrs with normal use
Dimensions	10.3 x 8.4 x 2.6 inches (262 x 213 x 65 mm)	10.3 x 8.4 x 2.6 inches (262 x 213 x 65 mm)	10.3 x 8.4 x 2.6 inches (262 x 213 x 65 mm)
Weight with Battery	2.05 lbs (930 g)	2.05 lbs (930 g)	1.76 lbs (800 g)
Included Accessories	Carrying Case, Dark Glass Eye Protection Filter, 9V Battery, RS485 Cable, PC Cable, User Manual	Carrying Case, Dark Glass Eye Protection Filter, 9V Battery, RS485 Cable, PC Cable, User Manual	Carrying Case, Dark Glass Eye Protection Filter, 9V Battery, RS485 Cable, PC Cable, User Manual

Specifications subject to change without notice

Applications

- Aluminum
- Ceramics
- Chemical Furnaces
- Foundry & Iron
- Process Operations
- Metal Refining
- Petrochemical Furnaces
- Semiconductor
- Steel Industry
- Chemical Processing
- Preventive Maintenance
- Stacks, Kilns, and Reactors



NEW! Wahl Heat Spy® Long Distance Portable and Tripod Mount Infrared Thermometers

The Highest Distance to Spot Ratio on the market!

Wahl is pleased to introduce our **NEW!** Long Distance models to our line of Heat Spy® Infrared Thermometers. Widely used for non-contact temperature measurement and preventive maintenance in the Electrical Power Generation and Power Transmission industries. These new Heat Spy® Infrareads are preferred by maintenance engineers to easily search out hot spots at a safe and convenient distance.

Wahl's Long Distance models feature the highest optical resolution available on the market!

Applications

- Aluminum Industry
- Chemical Processing
- Preventive Maintenance
- Power Generation
- Power Transmission
- Refinery and Steel Industry
- Stacks, Kilns, and Reactors

The **NEW!** Wahl HSA500 Extra Long Distance Portable Infrared Thermometer offers High Accuracy, and a **Distance to Spot of 500:1**. Easily scan for hot spots through the LCD with the comfortable rifle style housing.

- Download snapshot of picture with temperature and time to SD Card
- 500:1 - Distance to Spot Size Ratio
- Measures accurately at distances from 11 to 82 feet!



HSA500 Extra Long Distance Portable Infrared features a large, easy to read LCD display.



Steady the HSA500 with shoulder stop, pistol grip, and barrel grab.



HSA300 Long Distance Infrared

The Wahl HSA300 is a Long Distance Portable Infrared Thermometer which provides **Distance to Spot of 300:1**. With a 2-inch measurement spot at 50 feet, its telescopic sight allows precise positioning of the measurement spot.

Peak temperature is displayed on the large main display easing the ability to capture the hot spot. The current temperature is displayed on the smaller secondary display.

- 300:1 - Distance to Spot Size Ratio
- Measures accurately at distances from 6 to 50 feet!



Calibration Services available

HSA300 • HSA500 • HSA1500 Specifications

Specifications			
Model Number	HSA300	HSA500	HSA1500
	Long Distance	Extra Long Distance	Super Long Distance
Temperature Range	-20° to 280°C	-20° to 300°C	0° to 300°C
Spectral Range	8 to 14µm	8 to 14µm	8 to 14µm
Distance to Spot Ratio	300:1	500:1	1500:1
Emissivity	0.5 to 1.0	0.4 to 1.0 adjustable	0.6 to 1.0 adjustable
Sighting	Telescopic	LCD Viewing	Telescopic
Accuracy	± 5°C ≤ 100°C, ± 5 % of Reading Within the range of 2 to 15 meters, or 6.5 to 49.2 feet	± 5°C ≤ 100°C, ± 5 % of Reading Within the range of 3.3 to 25 meters, or 10.83 to 82 feet	± 5°C ≤ 100°C, ± 5 % of Reading Within the range of 10 to 75 meters, or 32.8 to 246 feet
Repeatability	± 2% of Reading	± 2% of Reading	±2 % of Reading
Resolution	1.0°C	1.0°C	1.0°C
Response Time	< 500 mS	< 200 mS	< 500 mS
Operating Temperature	-4° to 122°F (-20° to 50°C)	-4° to 122°F (-20° to 50°C)	32° to 104°F (0° to 40°C)
Storage Temperature	32° to 104°F (0° to 40°C)	-4° to 122°F (-20° to 50°C)	32° to 104°F (0° to 40°C)
LCD Backlight	Yes	Yes	No
°F & °C Switchable	Yes	Yes	No
Auto Measuring	Yes	Yes	Yes
Max/Min/Avg/ΔT	Real Time, Max	Max	Max
Audible Alarm	No	High and Low	No
Memory	50 points	Download image with time and temperature stamp onto 2GB SD Card	No
Tripod Mount	Yes	Yes	Yes
USB Data Output	No	USB	No
Power Supply	2 - 9V Batteries	1 - 3.7V Rechargeable Battery	5 - AA Batteries
Battery Life with Laser Off	15 hours	15 hours	20 hours
Dimensions	10 x 9 x 2.25 inches (254 x 228 x 57 mm)	19.9 x 3.7 x 8.9 inches (506 x 95 x 228 mm)	9.05 x 5.3 x 6.8 inches (230 x 135 x 175 mm)
Weight with Battery	2.1lbs, (0.95 kg)	3.74 lbs (1.7 kg)	5.95 lbs (2.7 kg)
Included Accessories	Carrying Case, 2 - 9V Batteries, and User Manual	Carrying Case, 1 - 3.7 V Battery, Charger, USB Cable, SD Card, Software CD, and User Manual	Carrying Case, 5 - AA Batteries, Tripod with Case, Screwdriver, and User Manual

Specifications subject to change without notice

