

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, and FM approval available, **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.

Factory Mutual Approved models for potentially explosive environments are available. (see page 5).

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 Infrareds

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 $\pm 1^\circ\text{F}$
- FM approved (Intrinsically Safe) models available
- 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

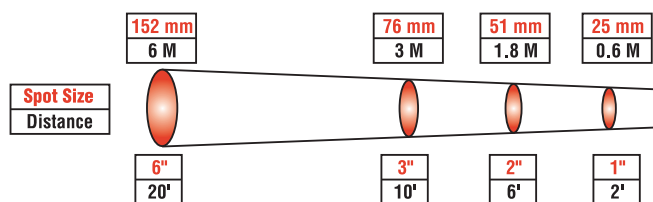
- Wider Temperature Range: 0° to 2000°F (-20° to 1000°C)
- Accuracy of $\pm 0.3\%$ of full scale
- Application for all normal material, including glass surfaces
- Sighting, Display, and FM options available
- 3 Year Warranty

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.



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



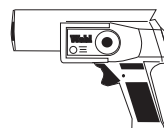
DHS24L



DHS24XT



DHS28XT



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.

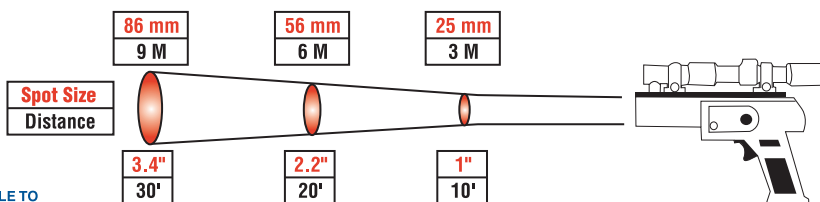
DHS29X Series Features

- 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



PALMER Wahl
INSTRUMENTATION GROUP

Continued Innovation Since 1836
ISO 9001:2008 CERTIFIED

(800) 421-2853 • FAX (828) 658-0728 • www.palmerwahl.com

PW1230
02/11 Rev A

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 FM	Yes FM	Yes	Yes	Yes	Yes	Yes FM	Yes FM
DHS26	Yes FM	Yes FM	Yes	Yes	Yes	Yes	Yes FM	Yes FM
DHS28	NA	Yes FM	NA	NA	Yes	Yes	NA	Yes FM
DHS29	NA	Yes	NA	NA	NA	NA	NA	Yes
DHS35	NA	NA	NA	NA	NA	NA	NA	Yes

FM - Factory Mutual approved model is available where noted above.

Specifications are subject to change without notice

To specify FM model, modify the model number or suffix by adding "F" for Fahrenheit or "C" for Celsius scale, then add "-FM" to the model number. *EXAMPLE: DHS24XC-FM or DHS26XTF-FM.*

Factory Mutual approved for use in Class I and II, Groups C, D, E, F, and G hazardous locations.

Factory Mutual (FM) approved models do not include the following Heat Spy features or options:

F/C switch (order dedicated Fahrenheit or Celsius model); 1mV/degree output; AC Adapter; laser sighting.



PALMER Wahl
INSTRUMENTATION GROUP
Continued Innovation Since 1836
ISO 9001:2008 CERTIFIED