

# Two-Color and Single Color Handheld Infrared Pyrometers

OMEGASCOPE®

OS3750 Series



Optional



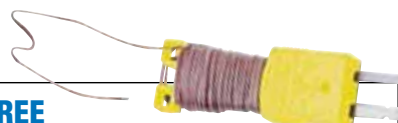
OS3753 2-color pyrometer.

- ✓ Through the Lens Optical System
- ✓ High Temperature Applications
- ✓ Models Available:
  - 2-Color/1-Color Wide Range from 400 to 3000°C (752 to 5432°F)
  - Single Color 300 to 1000°C (572 to 1832°F)
  - Single Color 600 to 2000°C (1112 to 3632°F)
- ✓ Two Color Unit Uses Both InGaAs and Si Element Which Reduces Influence of Emissivity and Provide High Sensitivity and High Accuracy Measurement
- ✓ Measured Value Is Digitally Displayed in the Viewfinder and on Front Panel
- ✓ Target Size of 20 mm (0.8") Can be Measured at a Distance of 4 m (13')
- ✓ By Connecting a Type K Surface Thermocouple, You Can Measure Low Temperature Surfaces and Compensate for Emissivity

- ✓ Small Size, 100 H x 148 W x 70 mm D (4 x 6 x 3"), and Light Weight, 350 g (13 oz), Make Long-Term Measurement Easy
- ✓ 500 Readings Can Be Stored and Replayed
- ✓ Maximum, Minimum, and Average Value Math Functions
- ✓ Peak and Hold Readings
- ✓ Optional Software and Cable
- ✓ Includes New Portable Mini-Tripod

## FREE Thermocouple Included!

All models include a free 900 mm (36") Type K insulated beaded wire thermocouple with subminiature connector and wire spool caddy. Order a Spare! Model No. SC-GG-K-30-36



The OS3750 Series is a small, lightweight handheld thermometer with a clear viewfinder. The thru-the-lens optical system enables it to measure small targets from a long distance. The measured value can be read on the internal digital display in the viewfinder. Three models are available. The OS3753 IR Pyrometer combines the functions of a 2-color and single color wide range pyrometer in one model. The OS3751 is a single-color medium temperature range model, and the OS3752 is a single-color high temperature range model.

The OS3750 Series can be mounted on a tripod or when there is no room for a tripod, on a fixed location by a universal head (sold separately).

## OS3753 Two-Color Model

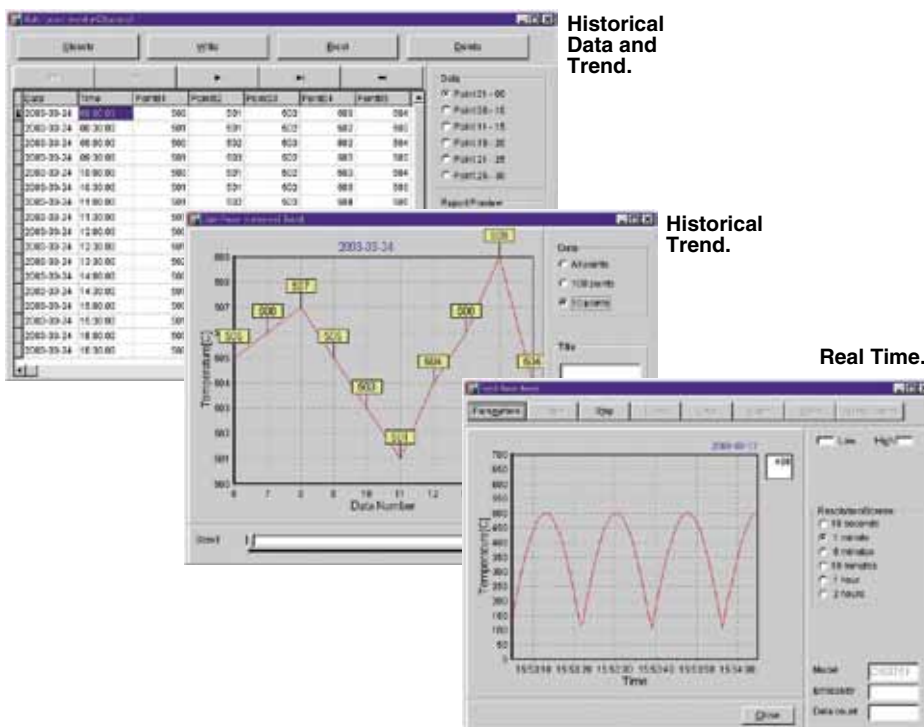
The OS3753 allows for measurement to be made by comparing the ratio of 2 different wavelengths. The advantage of this

is by using a ratio, the measurement is independent of emissivity. It is also unaffected by dust or other contaminants in the field of view or by dirt collecting on a viewing window.

### OS3750-SOFT Datalogging Software and OS3750-CABLE

Datalogging software is available for easy data processing by a personal computer. Also available is an RS232, 9-pin cable.

Three kinds of data management modes are available: real-time trend mode, multi-point monitoring mode by utilizing memory, and 1-point historical trend mode. Graph display, report creation, printing, and data storage can be easily executed. The export of the measured data to worksheet applications is also possible.

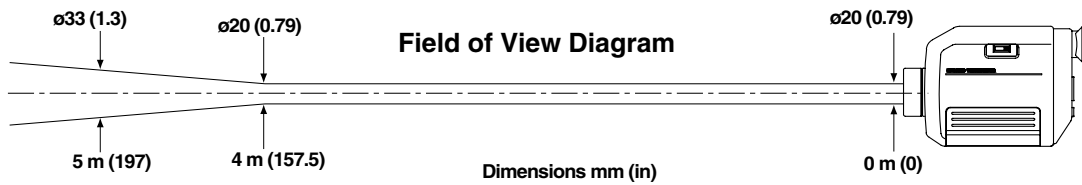


<b>Model No.</b>	OS3750-SOFT
<b>Environment</b>	OS Windows Vista
<b>Media</b>	CD-R (2m of RS232C cable with D-Sub 9 pins female connector is attached)
<b>Readout</b>	Readout of transmitted data by RS232C from OS3750 Series
<b>Functions</b>	Display on a personal computer; data storage and replay; printer output
<b>Graphic Display</b>	640 x 480 dots (initial), 1024 x 768 (resized by a personal computer)
<b>Measurement Mode</b>	Real-time trend mode; multi-point monitoring mode, 1-point trend mode

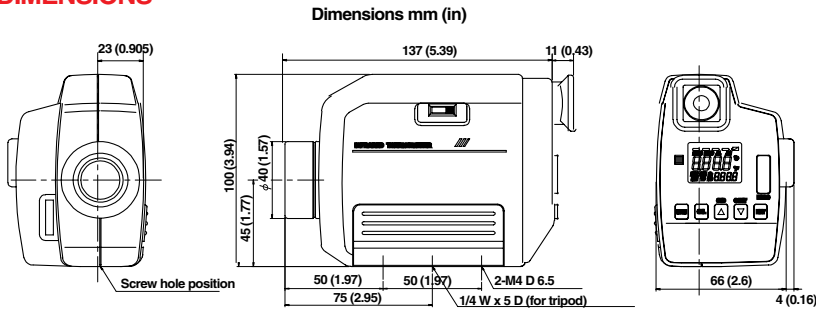
	<b>Real-time Trend</b>	<b>Multi-Point Monitoring (30 points)</b>	<b>1-Point Trend (500 data)</b>
<b>Readout of Data Stored</b>	<ul style="list-style-type: none"> <li>Real-time trend graph (in real-time trend logging mode)</li> <li>Alarm summary</li> </ul>	<ul style="list-style-type: none"> <li>Readout of monitoring data up to 30 point</li> <li>Creation of reports (table, graph)</li> <li>Input of measurement place name and settings of high/low alarms are enabled on each measurement place</li> <li>Grouping each 5-point on table and graph</li> </ul>	<ul style="list-style-type: none"> <li>Readout of continuous data up to 500 data</li> <li>Display by graph</li> <li>Display of all data</li> <li>Display of specified data (100 points/10 points selectable)</li> <li>Maximum, minimum, and average</li> </ul>
<b>Datalogging and Graphic Display</b>	<ul style="list-style-type: none"> <li>Measuring cycle: 0.5 to 10 seconds</li> <li>Chart speed: 10-second, 1-minute, 5-minute, 10-minute, 1-hour, 2-hour screen (6-step selection)</li> <li>Scroll function: chart time axis can be scrolled after measurement stop or reply of data stored</li> <li>Temperature range: auto-range or fixed range is selectable</li> <li>High/low alarms</li> </ul>		
<b>Storage Type</b>	<ul style="list-style-type: none"> <li>File for replay of trend graph</li> </ul>	<ul style="list-style-type: none"> <li>Storage of 30 points data base</li> </ul>	
<b>Export to Excel 2003 (*)</b>	<ul style="list-style-type: none"> <li>All data of date, time and temperature on real-time trend</li> <li>Alarm summary</li> </ul>	<ul style="list-style-type: none"> <li>Monitoring data base table up to 30 points</li> </ul>	<ul style="list-style-type: none"> <li>Continuous data up to 500</li> </ul>
<b>Data Stored</b>	<ul style="list-style-type: none"> <li>Maximum 1000 data (maximum memory capacity=600kb)</li> <li>Alarm summary 100 data (renewed to updated data)</li> </ul>	<ul style="list-style-type: none"> <li>Database up to 30 points</li> </ul>	
<b>Printer Output</b>	<ul style="list-style-type: none"> <li>Real-time trend graph</li> <li>Alarm summary report</li> </ul>	<ul style="list-style-type: none"> <li>Table form report</li> <li>Graph form report</li> </ul>	<ul style="list-style-type: none"> <li>Historical trend graph</li> </ul>

\* Excel: Up to Excel 2007

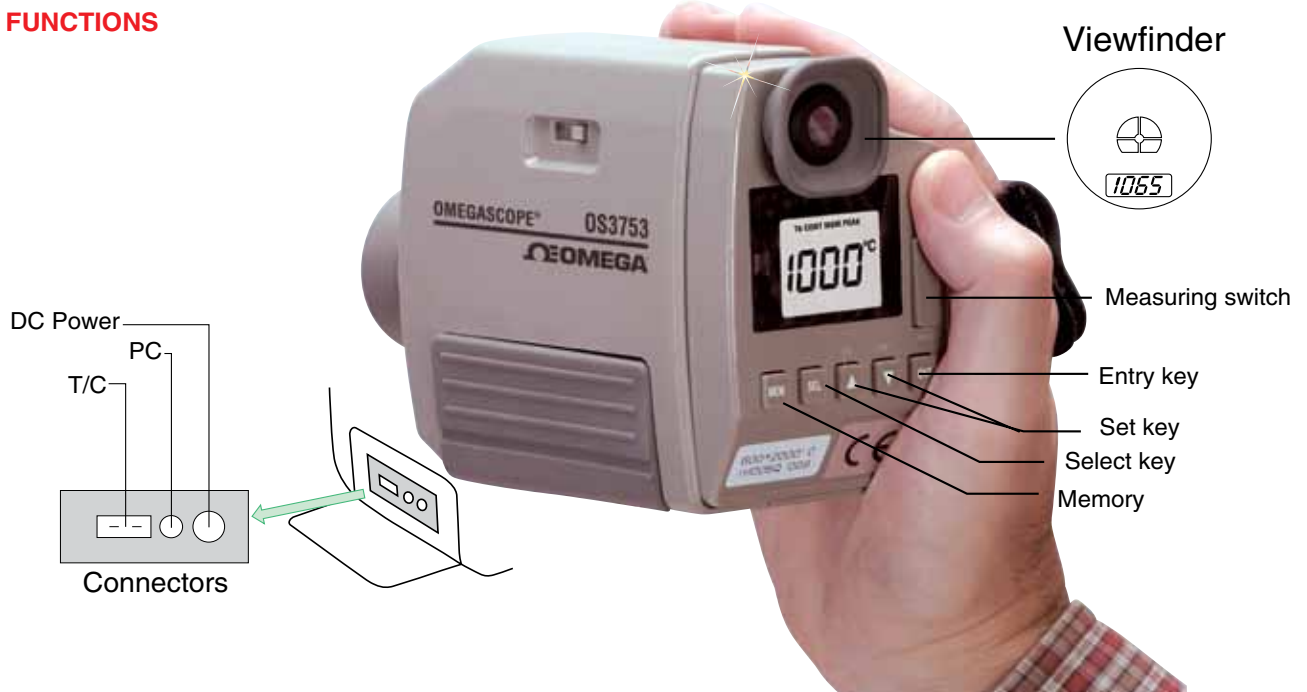
## DIAMETER/DISTANCE



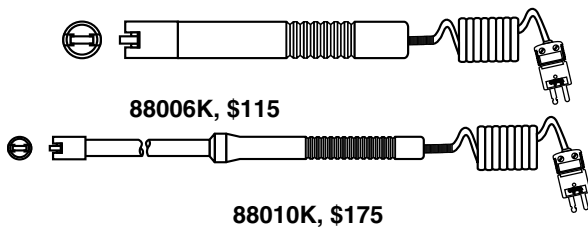
## OUTSIDE DIMENSIONS



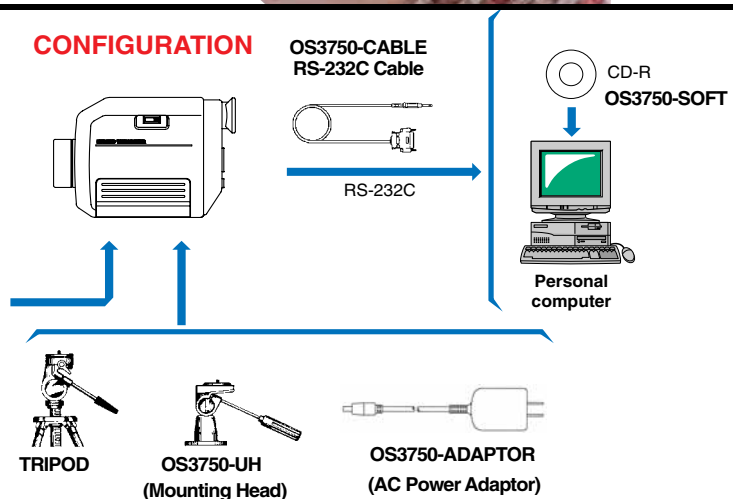
## FUNCTIONS



## TYPICAL SURFACE THERMOCOUPLES USED WITH OS SERIES OMEGASCOPE®



## CONFIGURATION



## OMEGASCOPE® Specifications

Types	Single-Color For Medium Temperature	Single-Color For High Temperature	Dual Function Type (2-Color and Single-Color Wide Range Type)
Model No.	OS3751	OS3752	OS3753
Measuring System	Narrow band radiation thermometer		
Element	InGaAs	Si	Si/InGaAs
Wavelength	1.55 µm	0.9µm	0.9/1.55 µm
Temperature Range	300 to 1000°C (572 to 1832°F)	600 to 2000°C (1112 to 3632°F)	600 to 2000°C (1112-3632°F)(2-color) 400 to 3000°C (752-5432°F)(single-color) (key switching)
Accuracy Rating	±6°C (11°F)	Less than 1000°C (1832°F): ±6°C (±10.8°F) 1000 to 1500°C (1832 to 2732°F): ±0.6% of measured value 1500 to 2000°C (2732 to 3632°F): ±1.2% of measured value More than 2000°C (3632°F): ±2.4% of measured value	
Repeatability	within ±1°C (1.8°F)		
Temperature Stability	Temperature drift: 0.2°C/°C (0.36°F/°F)	Temperature drift: less than 1000°C (1832°F): 0.2°C/°C (0.36°F/°F); Over 1000°C (1832°F): 0.02% of measured value/°C or °F	
Resolution	1°C (34°F)		
Response Time	0.25 second (approximately 4 seconds: with surface temperature sensor Type K)		
Emissivity Compensation	0.100 to 1.000 (0.001 increment)		
Math	Maximum value, minimum value, average value		
Signal Modulation	Peak, delay		
Display	LCD digital display 4-digit in viewfinder and on front panel		
Data Storage	Maximum 500 data points		
Communications	RS232C (data logging software/OS3750-SOFT)		
Optics	Fixed focus system		
Spot Size	20/4000 mm (0.79/157") (diameter/distance) see field of view diagram		
Targeting	Direct view finder (through the lens)		
Lens Diameter	20 mm Dia. (0.79")		
Thermocouple Input	K thermocouple: -50 to 800°C (-58 to 1427°F) Accuracy: ±2°C (±3.6°F) at 23 ±5°C (±9°F)		
Other Functions	Automatic power-off, automatic backlight display, continuous measurement °C/°F selection, battery check, high/low alarms		
Working Temperature	0 to 50°C (32 to 122°F)		
Software and Cable	Optional		
Power	2 "AA" batteries included (50 hrs at continuous operation) AC power adaptor OS3750-ADAPTOR (sold separately)		
Case Material/Color	ABS resin/gray		
Outside Dimensions/Weight	100 H x 148 W x 70 mm D (4 x 6 x 3"), about 350 g (13 oz) (thermometer only)		

### To Order

Model No.	Description
OS3751	Single-color IR 300 to 1000°C (1832°F)
OS3752	Single-color IR 600 to 2000°C (3632°F)
OS3753	Dual 2-color/single color wide range IR pyrometer

Comes complete with portable mini-tripod, wrist strap, 2 "AA" alkaline batteries, 1 Type K insulated beaded wire thermocouple, and operator's manual.

† NIST-traceable calibration with 3 data points is available by adding suffix "-NIST" for an additional cost. A calibration certificate (factory check) is available by adding suffix "-NIST CERT" for an additional cost.

Ordering Example: OS3752, single color IR pyrometer, OS3750-SOFT, software and cable, OS3750-ADAPTOR, AC adaptor, and TRIPOD, tripod for mounting. OCW-3, OMEGACARE<sup>SM</sup> extends standard 1-year warranty to a total of 4 years.

### Accessories

Model No.	Description
SC-530	Soft case with shoulder strap
OS3750-SOFT	Software and cable (OS:XP)
OS3750-CABLE	RS232, 9-pin cable (spare)
OS3750-ADAPTOR	100 to 240 Vac power
OS3750-UH	Universal mounting head
MINI-TRIPOD	Replacement portable mini-tripod expands from 142 to 279 mm (5.6 to 11")
SC-GG-K-30-36	Spare 900 mm (36") Type K beaded wire
MN1500	Spare "AA" Alkaline battery (2-pack)
MN1500-L	Spare "AA" Lithium battery (2-pack)



OMEGACARE<sup>SM</sup> extended warranty program is available for models shown on this page. Ask your sales representative for full details when placing an order. OMEGACARE<sup>SM</sup> covers parts, labor and equivalent loaners.

### Type K Surface Probes\* for Contact Surface Measurement

Model No.	Description
88006K	Miniature surface probe, 480°C (900°F)
88016K	Miniature right-angle surface probe, 480°C (900°F)
88003K	Surface probe, 480°C (900°F)
88101K	Right-angle surface probe, 480°C (900°F)
88010K	High temperature surface probe, 760°C (1400°F)
88107K	Right-angle high temperature surface probe, 760°C (1400°F)

\* See omega.com for additional surface probes.