



Industrial Infrared Thermometer

Non-Contact Temperature Measurement with Integral Display and Analog Output

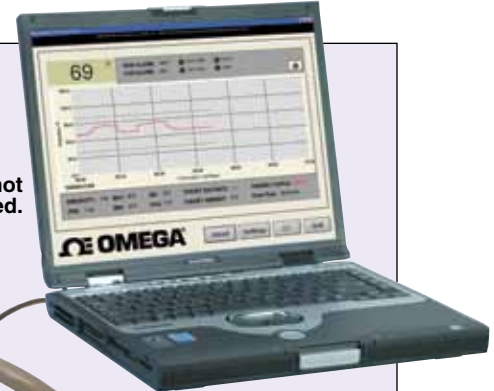
OS550A Series

OS550A shown smaller than actual size.



Optional††

Laptop not included.



FREE
Data Logging
Software Included With
OS552A,
OS553A and OS554A

**High Temperature and
See Through Glass Model
Available—OS555A
Visit omega.com/os555a**

- ✓ 4 Models for Temperature Measurements up to 1370°C (2500°F)
- ✓ ±1% Rdg Accuracy
- ✓ Voltage/Current Analog Output
- ✓ Backlit LCD
- ✓ Dual Display Design Indicates Min/Max/Avg or ΔT Temperatures
- ✓ Adjustable Emissivity
- ✓ Data Storage and Logging
- ✓ High/Low Voltage Alarm Outputs with Red LED Indication (OS551A-High Alarm Only)
- ✓ Fast 100 ms Response Time
- ✓ Two-Way RS232 Communications Available
- ✓ Available with NEMA 4 Plastic or Aluminum Housing, or with No Case for OEM Applications
- ✓ Windows® Based PC Application Data Logging Software

The new OMEGA® OS550A series infrared thermometers offer an industrial, high performance, economical transmitter package with a wide choice of temperature ranges, optical fields of view and analog outputs to feed directly to panel meters, recorders,

temperature/process controllers, data loggers, data acquisition systems or other process instrumentation.

Since the OS550A Series infrared thermometers do not use chopper motors or vibrator mechanisms, they can be mounted in any position and in hostile environments without suffering any loss in performance. This rugged design coupled with relatively small dimensions makes these sensors ideally suited for a wide variety of applications.

Specifications General

Accuracy: ±1% rdg or 1.7°C (3°F), whichever is greater; 25°C ambient, 0.95 emissivity
Repeatability: ±(1% rdg + 1 digit)
Spectral Response: 8 to 14 microns
Emissivity: 0.10 to 1.00 in 0.01 steps
Response Time: 100 ms, 0 to 63.5% of final value
Display: Backlit LCD
Analog Output: 1 mV/degree, 0 to 5 Vdc or 4 to 20 mA
Alarms: High and low; red LED and audible indicators; two voltage outputs, 100 mA current to drive external relays
Power: 8 to 24 Vdc, 80 mA
PC Interface (OS552A/553A/554A Models Only): RS232, 2-way, PC user software included

†† Refer to Accessories on next page for NIST calibration ordering information.

Environmental

Rating: NEMA 4 (IP65); sensor head and plastic or aluminum electronics enclosure

Operating Ambient: 0 to 50°C (32 to 122°F) electronics and standard sensing head; 85°C (185°F) max temp for sensing head with OS550-WC water cooled jacket

Physical Dimensions:

Sensing Head: 109 L x 41 OD mm (4.3 x 1.63"); 1.5-20 thread

Electronics, Plastic Case: 120 H x 80 W x 51 mm L (4.75 x 3.15 x 2")

Electronics, Aluminum Case: 115 H x 90 W x 56 mm L (4.5 x 3.5 x 2.2")

Connections: 4.5 m (15') sensor head and power/output cables included

Weight: 0.45 kg (12 oz) sensing head; 1.2 kg (42.3 oz) plastic case

Laser Sighting

Wavelength: 650 nm, red

Operating Distance: Up to 12 m (40')

Max Laser Power Output: Less than 1 mW

Classification: FDA Class II Laser product; European Class 2

Beam Diameter: 5 mm

Operating Ambient: 0 to 50°C (32 to 122°F)

Available Accessories



OS550-MF
mounting flange.



OS550-AP
air purge collar.

OS550-MN
mounting nut.



OS550-WC
air/water
cooling jacket.



OS550-MB
mounting
bracket.

OS550A sensor
head (included),
shown with optional
mounting bracket
and mounting nut.



OS550-LS laser sighting
with included battery pack.

**Make it Wireless with
Optional RS232
to USB Wireless
Transceiver!**

WRS232-USB
wireless transceiver,
sold separately. Shown
smaller than actual size.



Make it Wireless!

The WRS232-USB transceiver can make the OS550A wireless! Simply attach the WRS232 transceiver to the RS232 port on the OS550A, and the WUSB transceiver to a USB port on your PC. Capable of full, two-way communications, the WRS232-USB operates transparently to the user. The WRS232-USB can extend the distance from your PC to your instrumentation, up to 40 m (130') in indoor/urban settings, or up to 120 m (400') outdoors/line of sight.

**We make
running changes
when technical
advances allow.
Check at time
of ordering for
additional features.**



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

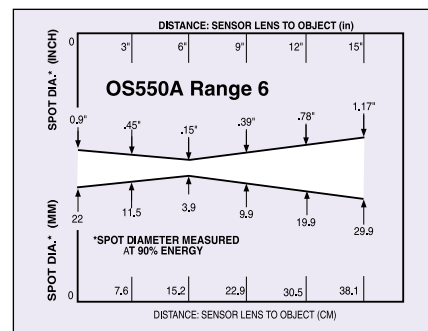
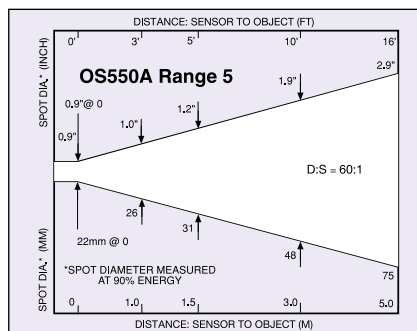
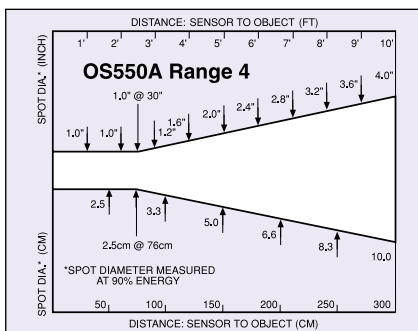
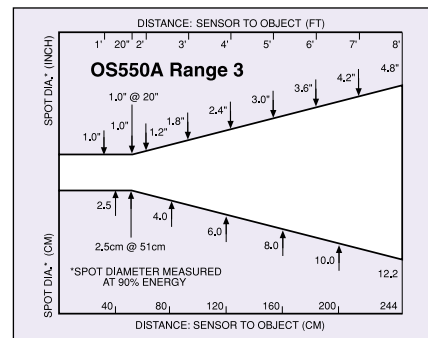
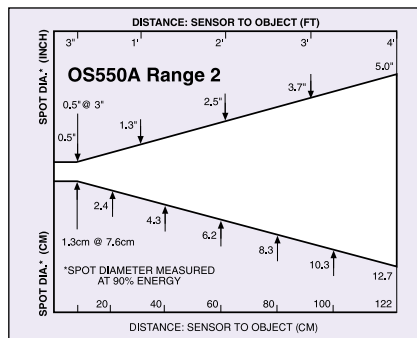
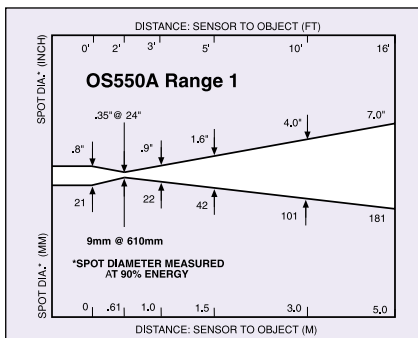
Accessories

To Order Visit omega.com/os550a for Pricing and Details

Model No.	Description
WRS232-USB	Wireless RS232 transceiver
OS550-AP	Air purge collar
OS550-WC	Air/water cooling jacket
OS550-MF	Mounting flange
OS550-MB	Right-angle mounting bracket
OS550-MN	Mounting nut
OS550-LS	Laser sighting**
CAL-3-IR†	NIST calibration certification
CAL-3-IR-X††	NIST calibration for over 1000°F temp
PSR-24S	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals, UL
PSR-24L	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL
PSR-24L-230	Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE
TX8-100	Power/output extension cable 30 m (100')
OM-CONV-USB	RS232 to USB interface converter
OS550A-PCAB-15	Power/output cable connector 4.5 m (15')
OS550A-PCAB-100	Power/output cable connector 30 m (100')

** 1 unit suitable for aligning many sensor heads.

OS550 Series Optical Field of View Diagrams





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Optical Table*

Optical Range Code	Field of View (FOV)
1	Spot size 8.9 @ 609 mm (0.35 @ 24")
2	Spot size 12.7 @ 76 mm (0.5 @ 3")
3	Spot size 25.4 @ 508 mm (1 @ 20")
4	Spot size 25.4 @ 762 mm (1 @ 30")
5	Spot size 25.4 @ 914 mm (1 @ 36")
6	Spot size 3.8 @ 152 mm (0.15 @ 6")



OS550AM infrared industrial thermometer in an aluminum case.

OEM Version Available!
Visit omega.com/os550a-bb_series



WRS232-USB wireless transceiver, sold separately.

WUSB wireless receiver.

To Order Visit omega.com/os550a for Pricing and Details

NEMA 4 Rated Plastic Enclosure

Model No.	Range	Analog Output	RS232/PC Software
OS551A-MV-(*)	-23 to 400°C (-10 to 750°F)	1 mV/Deg	—
OS551A-MA-(*)	-23 to 400°C (-10 to 750°F)	4 to 20 mA	—
OS551A-V1-(*)	-23 to 400°C (-10 to 750°F)	0 to 5 Vdc	—
OS552A-MV-(*)	-23 to 538°C (-10 to 1000°F)	1 mV/Deg	Standard
OS552A-MA-(*)	-23 to 538°C (-10 to 1000°F)	4 to 20 mA	Standard
OS552A-V1-(*)	-23 to 538°C (-10 to 1000°F)	0 to 5 Vdc	Standard
OS553A-MV-(*)	-23 to 871°C (-10 to 1600°F)	1 mV/Deg	Standard
OS553A-MA-(*)	-23 to 871°C (-10 to 1600°F)	4 to 20 mA	Standard
OS553A-V1-(*)	-23 to 871°C (-10 to 1600°F)	0 to 5 Vdc	Standard
OS554A-MV-(*)	-18 to 1370°C (0 to 2500°F)	1 mV/Deg	Standard
OS554A-MA-(*)	-18 to 1370°C (0 to 2500°F)	4 to 20 mA	Standard
OS554A-V1-(*)	-18 to 1370°C (0 to 2500°F)	0 to 5 Vdc	Standard

NEMA 4 Rated Aluminum Enclosure

OS551AM-MV-(*)	-23 to 400°C (-10 to 750°F)	1 mV/Deg	—
OS551AM-MA-(*)	-23 to 400°C (-10 to 750°F)	4 to 20 mA	—
OS551AM-V1-(*)	-23 to 400°C (-10 to 750°F)	0 to 5 Vdc	—
OS552AM-MV-(*)	-23 to 538°C (-10 to 1000°F)	1 mV/Deg	Standard
OS552AM-MA-(*)	-23 to 538°C (-10 to 1000°F)	4 to 20 mA	Standard
OS552AM-V1-(*)	-23 to 538°C (-10 to 1000°F)	0 to 5 Vdc	Standard
OS553AM-MV-(*)	-23 to 871°C (-10 to 1600°F)	1 mV/Deg	Standard
OS553AM-MA-(*)	-23 to 871°C (-10 to 1600°F)	4 to 20 mA	Standard
OS553AM-V1-(*)	-23 to 871°C (-10 to 1600°F)	0 to 5 Vdc	Standard
OS554AM-MV-(*)	-18 to 1370°C (0 to 2500°F)	1 mV/Deg	Standard
OS554AM-MA-(*)	-18 to 1370°C (0 to 2500°F)	4 to 20 mA	Standard
OS554AM-V1-(*)	-18 to 1370°C (0 to 2500°F)	0 to 5 Vdc	Standard

* Specify optical range code from optical table, above (-2 field of view is not offered with OS554A).

To order with longer sensor head cable, up to 15 m (50'), add suffix "(-†)FT" to model number for additional cost for each additional foot over 4.5 m (15').

† Specify length in feet.

Ordering Examples: OS552A-MA-2, infrared thermometer with -23 to 538°C (-10 to 1000°F) range, 4 to 20 mA output and spot size 12.7 mm (0.5") at 76 mm (3").

OS551A-MA-2-35FT, OS551 with current output, 0.5 at 76 mm (3") FOV, 10.6 m (35') sensor head cable.

OCW-3, OMEGACARESM extends standard 2-year warranty to a total of 5 years.

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