

# Industrial Non-Contact Infrared Thermometer/Transmitter with Local Display and Analog Output



OS550 Series  
**\$495**  
 Basic System

- ✓ Accuracy  $\pm 1\%$  of Reading
- ✓ Models with Temperature Ranges Measuring Up to 1370°C (2500°F)
- ✓ Current, Voltage, or Millivolt Output
- ✓ Laser Sight Optional
- ✓ °C/°F Keypad Selectable
- ✓ Local Backlit LCD Display Standard
- ✓ Dual Display Indicates Current plus Min, Max, Average, or Differential Temperatures on Most Models
- ✓ Visual and Audible High Alarm Low Alarm (OS552, OS553, OS554)
- ✓ Emissivity Adjustable from 0.1 to 1.00 in 0.01 Steps via the Programmable Keypad
- ✓ Fast 250 msec Response Time
- ✓ Complete NEMA 4 (IP66) System
- ✓ RS232 Communication Available

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.

OMEGA's OS550 Series industrial, high-performance, economical thermometer/transmitter offers a wide choice of temperature ranges, optical patterns, or fields of view and three outputs (1 mV/degree, 4 to 20 mA, and 0 to 5 Vdc) to feed directly into panel meters, recorders, temperature/process controllers, data loggers, data acquisition systems, or other process instrumentation.

Since the OS550 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.



**FREE** data logging software featured on page J-77 included with models OS552, 553 and 554

## Specifications

**Accuracy:**  $\pm 1\%$  of reading @ 25°C ambient or 1.7°C (3°F), whichever is greater

**Repeatability:**  $\pm 1\%$  rdg  $\pm 1$  digit

**Spectral Response:** 8 to 14 microns

**Emissivity Range:** 0.10 to 1.00

**Field of View (FOV):** See diagrams

**Display:** Backlit LCD

**Transmitter Outputs:** 1 mV/degree, 0 to 5 Vdc or 4 to 20 mA

**Power:** 7 to 24 Vdc @ 80 mA

**Environmental Ratings:** NEMA 4 water-tight and dust-tight for sensing head and electronics enclosure

**Ambient Operating Range:** Sensing head 0 to 50°C (32 to 122°F) with OS550-WC; 0 to 85°C (32 to 185°F)

**Response Time:** 250 msec; 0 to 63.2%

**Alarms:** Visual and audible

**RS232:** Standard on OS552, OS553 and OS554 models. One-way communication. PC compatible software included.

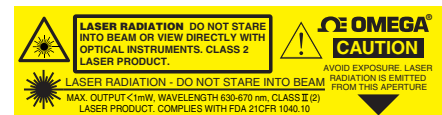
**Connection:** 4.5 m (15'), head and power cable included

**Dimensions:**

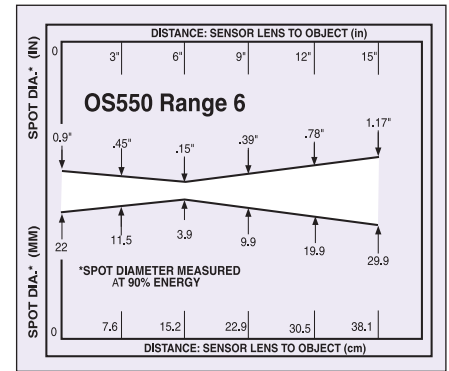
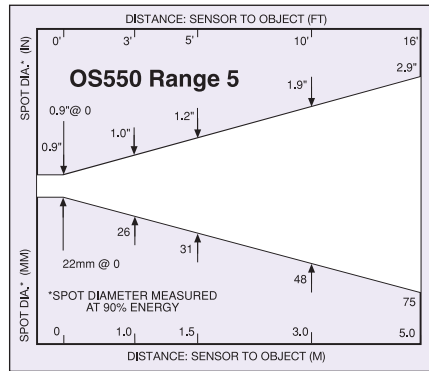
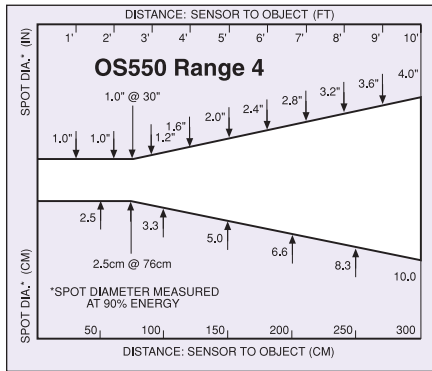
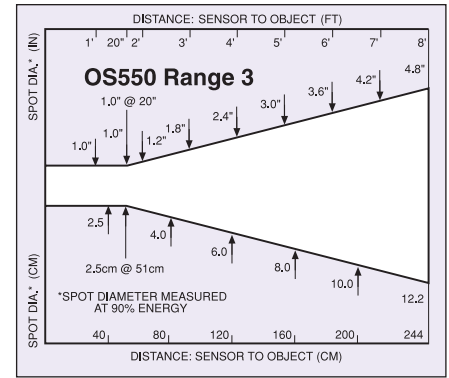
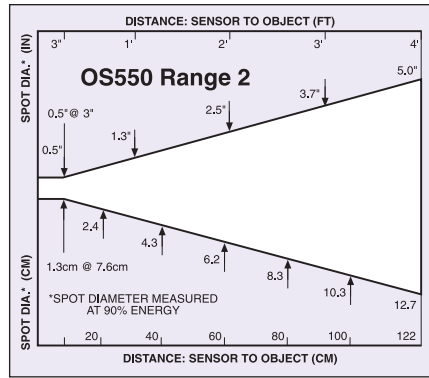
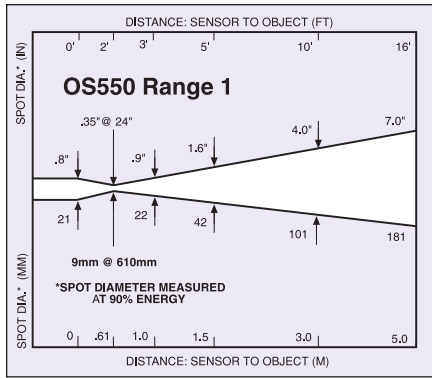
- Sensing Head:** 10.9 x 4.1 cm (4.30 x 1.63"), 1½ to 20 thread
- Electronics:** 13.3 x 9.1 cm (5.25 x 3.62")

**Weight:**

- Sensing Head:** 0.45 kg (12 oz)
- Electronics Mounted in NEMA 4 Enclosure:** 1.2 kg (43.2 oz)



## OS550 Series Optical Field of View Diagrams



☐ **MOST POPULAR MODELS HIGHLIGHTED!**

### To Order Complete NEMA 4 (IP66) SYSTEM (Specify Model No.)

Model Number	Price	Output	Temperature Range	RS232	Free PC Software
<b>OS551-MV-*</b>	<b>\$495</b>	1 mV/deg.	-18 to 400°C (0 to 750°F)	—	—
<b>OS551-MA-*</b>	<b>495</b>	4 to 20 mA	-18 to 400°C (0 to 750°F)	—	—
<b>OS551-V1-*</b>	<b>495</b>	0 to 5 Vdc	-18 to 400°C (0 to 750°F)	—	—
<b>OS552-MV-*</b>	<b>550</b>	1 mV/deg.	-18 to 540°C (0 to 1000°F)	Standard	Standard
<b>OS552-MA-*</b>	<b>550</b>	4 to 20 mA	-18 to 540°C (0 to 1000°F)	Standard	Standard
<b>OS552-V1-*</b>	<b>550</b>	0 to 5 Vdc	-18 to 540°C (0 to 1000°F)	Standard	Standard
<b>OS553-MV-*</b>	<b>650</b>	1 mV/deg.	-18 to 870°C (0 to 1600°F)	Standard	Standard
<b>OS553-MA-*</b>	<b>650</b>	4 to 20 mA	-18 to 870°C (0 to 1600°F)	Standard	Standard
<b>OS553-V1-*</b>	<b>650</b>	0 to 5 Vdc	-18 to 870°C (0 to 1600°F)	Standard	Standard
<b>OS554-MV-*</b>	<b>750</b>	1 mV/deg.	-18 to 1370°C (0 to 2500°F)	Standard	Standard
<b>OS554-MA-*</b>	<b>750</b>	4 to 20 mA	-18 to 1370°C (0 to 2500°F)	Standard	Standard
<b>OS554-V1-*</b>	<b>750</b>	0 to 5 Vdc	-18 to 1370°C (0 to 2500°F)	Standard	Standard

\* Insert optics code from table below.

Note: Sensor head cable can be extended at the factory at time of purchase to a maximum of 15 m (50'). Add suffix "-(\*)FT" to order number and \$1.00 per 0.3 m (1') over 5 m (15') to price.

Ordering Examples: **OS552-MA-2**, infrared thermometer with -18 to 540°C (0 to 1000°F) range, 4 to 20 mA output and spot size 12.7 mm (0.5") at 76 mm (3"), \$550. **OS551-MA-2-35FT**, OS551 with current output, 0.5 at 3" FOV, 11 meter sensor head cable, \$495 + 20 = \$515.

**OCW-3 OMEGACARE<sup>SM</sup>** extends standard 2-year warranty to a total of 5 years (\$128), \$515 + 128 = \$643.

### 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 @ 1524 mm (1" @ 60")
- 6	Spot Size 3.8 @ 152 mm (0.15" @ 6")

### Accessories

Model Number	Price	Description
<b>OS550-AP</b>	<b>\$65</b>	Air purge collar
<b>OS550-WC</b>	<b>195</b>	Air/water cooling jacket
<b>OS550-MF</b>	<b>65</b>	Mounting frame
<b>OS550-MB</b>	<b>35</b>	Right-angle mounting bracket
<b>OS550-MN</b>	<b>15</b>	Mounting nut
<b>OS550-LS</b>	<b>195</b>	Sighting viewer (laser) (not shown)*
<b>CAL-3-IR</b>	<b>125</b>	NIST calibration certification
<b>PSR-24S</b>	<b>60</b>	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, screw terminals, UL
<b>PSR-24L</b>	<b>60</b>	Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400 mA, stripped leads, UL
<b>PSR-24L-230</b>	<b>60</b>	Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400 mA, stripped leads, CE
<b>PSU-93</b>	<b>40</b>	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
<b>PSU-93</b>	<b>40</b>	Unregulated power supply, 16 to 23 Vdc, 300 mA max, screw terminal
<b>TX4-100</b>	<b>28.50</b>	Power/output extension wire 30 m (100')

\*One unit suitable for aligning many heads.



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)  
Deckenpfronn, Germany  
0800-8266342

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