

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



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

OMEGA's OS550 Series industrial, high-performance, economical thermometer/transmitter offers a wide choice of temperature ranges, optical patterns, or fields of view and 3 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.



*data logging software 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 (IP65) 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

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

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

### Dimensions:

**Sensing Head:** 10.9 x 4.1 cm (4.30 x 1.63"), 1/2 to 20 thread  
**Electronics:** 13.3 x 9.1 cm (5.25 x 3.62")

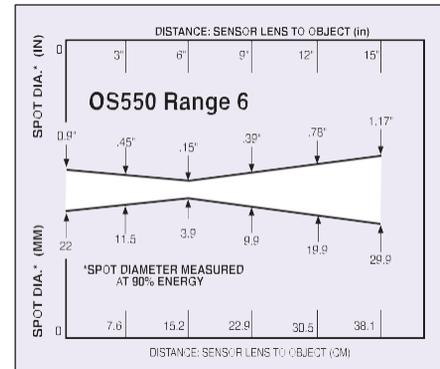
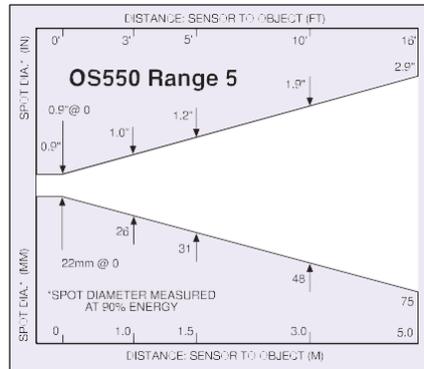
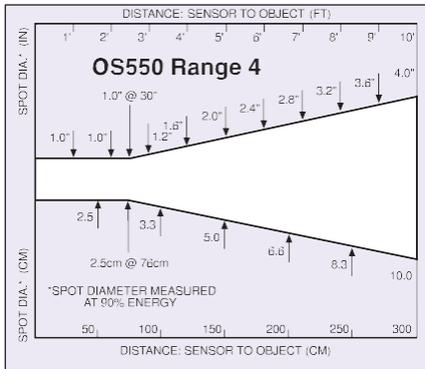
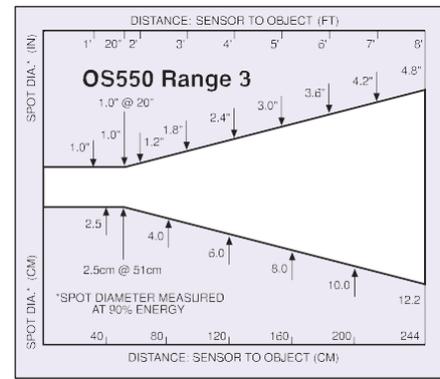
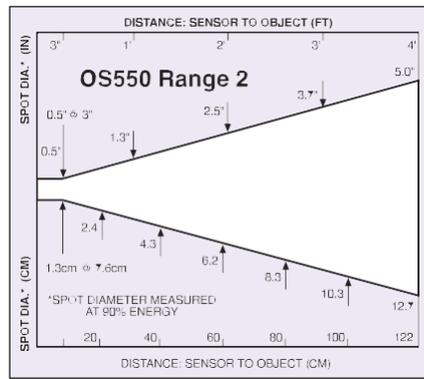
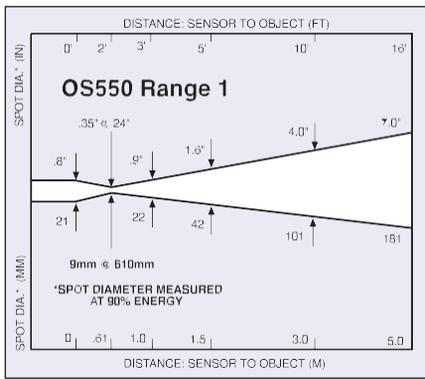
### Weight:

**Sensing Head:** 0.45 kg (12 oz)  
**Electronics Mounted in NEMA 4 (IP65) Enclosure:** 1.2 kg (43.2 oz)

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.



## OS550 Series Optical Field of View Diagrams



**MOST POPULAR MODELS HIGHLIGHTED!**

### To Order Complete NEMA 4 (IP65) System (Specify Model Number)

| Model No.     | Price | Output     | Temperature Range           | RS232    | Free PC Software |
|---------------|-------|------------|-----------------------------|----------|------------------|
| OS551-MV-(* ) | \$495 | 1 mV/deg   | -18 to 400°C (0 to 750°F)   | —        | —                |
| OS551-MA-(* ) | 495   | 4 to 20 mA | -18 to 400°C (0 to 750°F)   | —        | —                |
| OS551-V1-(* ) | 495   | 0 to 5 Vdc | -18 to 400°C (0 to 750°F)   | —        | —                |
| OS552-MV-(* ) | 550   | 1 mV/deg   | -18 to 540°C (0 to 1000°F)  | Standard | Standard         |
| OS552-MA-(* ) | 550   | 4 to 20 mA | -18 to 540°C (0 to 1000°F)  | Standard | Standard         |
| OS552-V1-(* ) | 550   | 0 to 5 Vdc | -18 to 540°C (0 to 1000°F)  | Standard | Standard         |
| OS553-MV-(* ) | 650   | 1 mV/deg   | -18 to 870°C (0 to 1600°F)  | Standard | Standard         |
| OS553-MA-(* ) | 650   | 4 to 20 mA | -18 to 870°C (0 to 1600°F)  | Standard | Standard         |
| OS553-V1-(* ) | 650   | 0 to 5 Vdc | -18 to 870°C (0 to 1600°F)  | Standard | Standard         |
| OS554-MV-(* ) | 750   | 1 mV/deg   | -18 to 1370°C (0 to 2500°F) | Standard | Standard         |
| OS554-MA-(* ) | 750   | 4 to 20 mA | -18 to 1370°C (0 to 2500°F) | Standard | Standard         |
| OS554-V1-(* ) | 750   | 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 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"). OS551-MA-2-35FT, OS551 with current output, 0.5 at 3" FOV, 11 meter sensor head cable. OCW-3, OMEGACARE<sup>SM</sup> extends standard 2-year warranty to a total of 5 years,

#### 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 No.   | Price | Description   |
|-------------|-------|---|
| OS550-AP    | \$65  | Air purge collar  |
| OS550-WC    | 195   | Air/water cooling jacket  |
| OS550-MF    | 65    | Mounting frame  |
| OS550-MB    | 35    | Right-angle mounting bracket  |
| OS550-MN    | 15    | Mounting nut  |
| OS550-LS    | 195   | Sighting viewer (laser) (not shown)*  |
| CAL-3-IR    | 125   | NIST calibration certification  |
| CAL-3-IR-X  | 175   | NIST calibration for over 1000°F  |
| PSR-24S     | 60    | Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400mA, screw terminals, UL |
| PSR-24L     | 60    | Regulated power supply, US plug, 90 to 264 Vac input, 24 Vdc output, 400mA, stripped leads, UL  |
| PSR-24L-230 | 60    | Regulated power supply, European plug, 230 Vac input, 24 Vdc output, 400mA, stripped leads, CE  |
| TX4-100     | 28.50 | Power/output extension wire 30 m (100')   |

\* 1 unit suitable for aligning many heads.



#### UNITED STATES

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1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

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

#### GERMANY

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