

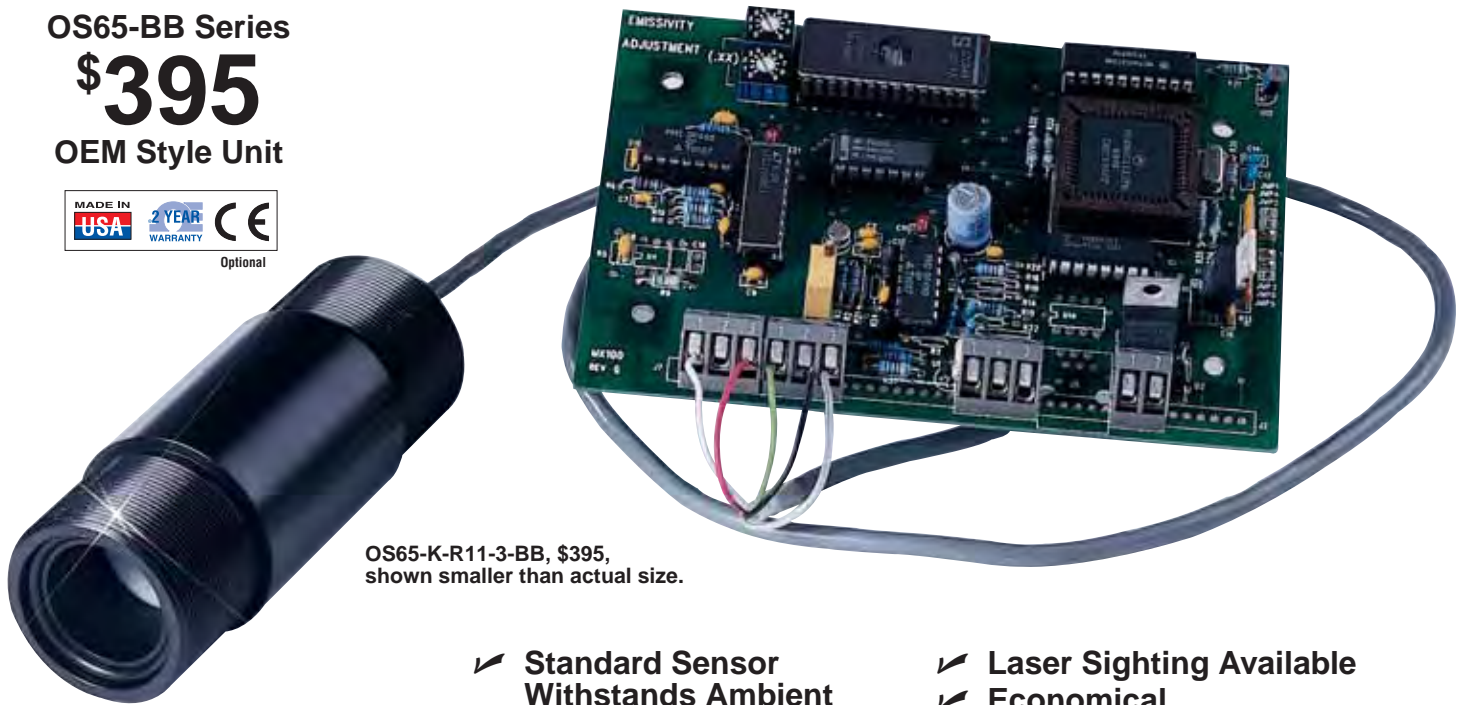
# Infrared Thermometers

## with Thermocouple, Voltage or Current Output

OS65-BB Series

**\$395**

OEM Style Unit



OS65-K-R11-3-BB, \$395, shown smaller than actual size.

- ✓ J or K Thermocouple, Milliamp, Millivolt, or Voltage Output
- ✓ Choice of Optics, 3:1, 7:1, 15:1 or 24:1
- ✓ Fast 300 msec Response Time
- ✓ Safe and Easy to Install

Non-contact temperature measurement has never been simpler or less expensive. OMEGA's new OS65 Series of fixed mount infrared radiation thermometers rapidly and accurately measure the temperature of moving, inaccessible or fragile targets.

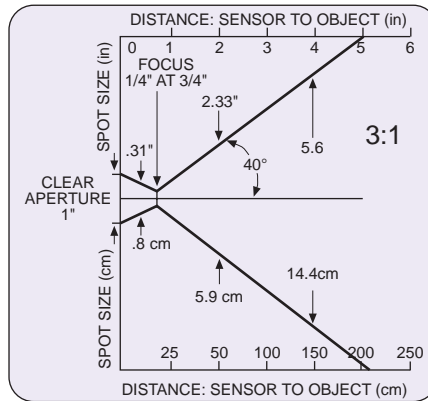
Ideal for OEM applications, OS65-BB Series units include only the infrared sensing head, 4.6 m (15') interconnecting cable and electronics card (no electronics enclosure is supplied).

For those applications requiring a complete system, the OS65 Series is also supplied as a complete NEMA-4 system, which includes the infrared sensing head, OS65-RAB mounting bracket, OS65-MN mounting nut, 4.6 m (15') interconnecting cable and electronics card housed in a NEMA 4 (IEC529, IP65) enclosure.

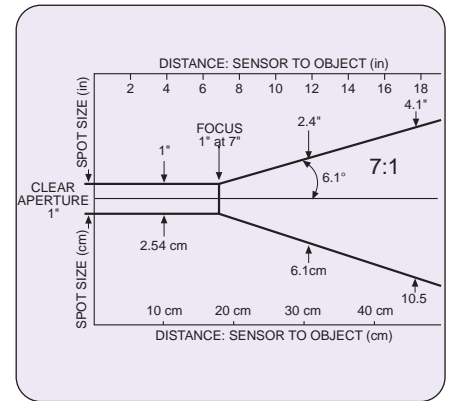
- ✓ Standard Sensor Withstands Ambient Temperatures up to 85°C (185°F)
- ✓ ±1% Accuracy

- ✓ Laser Sighting Available
- ✓ Economical
- ✓ Available as OEM Style Unit or Complete NEMA 4 System

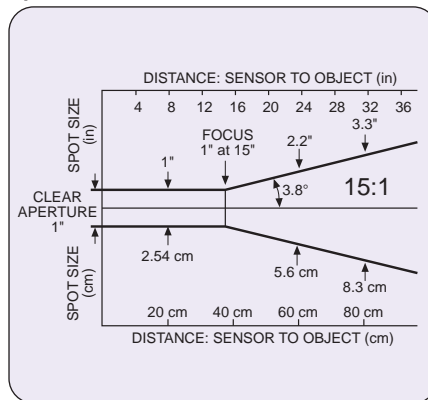
Optics Code-1



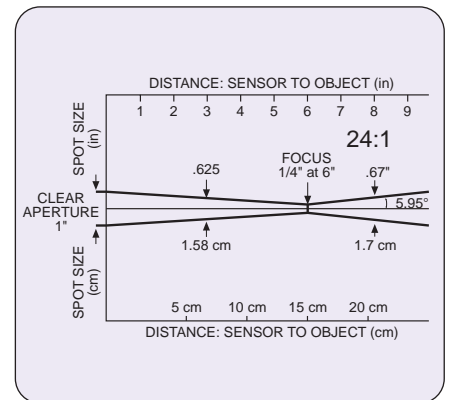
Optics Code-2



Optics Code-3



Optics Code-4



# Industrial IR Thermometers

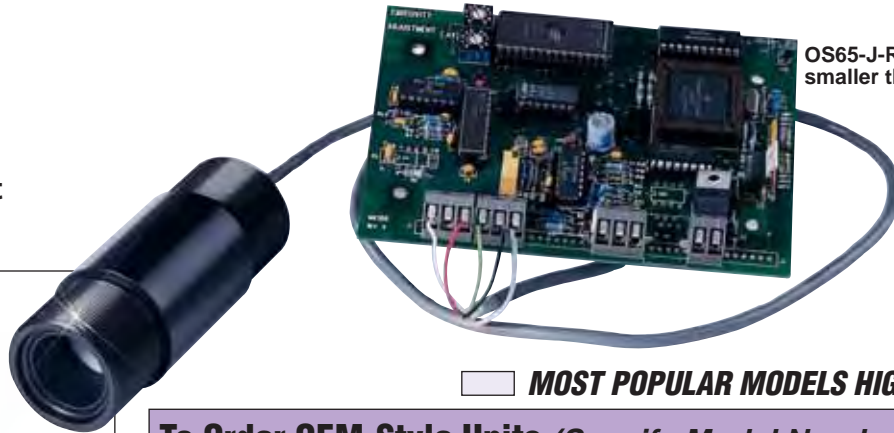
## OEM Style and NEMA Systems

OS65 Series

**\$395**

OEM Style Unit

OS65-J-R4-1-BB, \$395, shown smaller than actual size.



OS550-MF mounting frame, \$65.



OS65-AWC air/water cooling jacket, \$245.

OS65-APC air purge collar, \$75.



**MOST POPULAR MODELS HIGHLIGHTED!**

### To Order OEM Style Units (Specify Model Number)

Model No.	Price	Output Type	Compatible Meter
OS65-J(*)-(t)-BB	\$395	J	DP25-TC, DP41-TC
OS65-K(*)-(t)-BB	395	K	DP25-TC, DP41-TC
OS65-MV(*)-(t)-BB	395	1 mV/deg	DP25-E, DP41-E
OS65-MA1(*)-(t)-BB	395	4 to 20 mA	DP25-E, DP41-E
OS65-MA2(*)-(t)-BB	395	0 to 20 mA	DP25-E, DP41-E
OS65-V(*)-(t)-BB	395	0 to 5 Vdc	DP25-E, DP41-E

\* Insert temperature range code from range table on page J-86.

† Insert optics code from optical table on previous page. See optical diagrams on preceding pages for complete details.

Note: If electronics board is to be mounted in OS65-CC4 card cage, add suffix "-CC" to model number. No additional charge.

### Specifications

**Accuracy:** ±1% rdg or 1°C (±2°F)

**Repeatability:** ±0.50% rdg ±1 digit

**Spectral Response:** 8 to 14 microns

**Emissivity Range:** 0.10 to 0.99

digitally adjustable

**Response Time:** 300 msec

**Field of View (FOV):** 3:1, minimum spot size

1/4" at 1/4"; 7:1, minimum spot size

1" at 7"; 15:1, minimum spot size 1" at

15", 24:1, minimum spot size 1/4" at 6"

**Power:** 9 to 30 Vdc, 50 mA

**Environmental Ratings:** NEMA 4

(IP65) water tight and dust tight for

sensing head and electronics enclosure

**Ambient Operating Range:** sensing

head -18 to 85°C (0 to 185°F);

electronics 0 to 49°C (32 to 120°F); 0 to

350°F with cooling jacket -18 to 177°C

**Connection:** 4.5 m (15') cable

standard; optional 15 m (50') cable

**Lead Wire Resistance (Current Output**

**Models), Ω:** (Supply voltage -7)/0.02

**Load Current (voltage output**

**models):** 10 mA max

**Dimensions:** Sensing head

10.9 x 4.1 cm (4.30 x 1.63"),

1/2-20 thread electronics

13.3 x 9.1 cm (5.25 x 3.62")

**Weight:** Sensing head: 0.3 kg (8 oz);

electronics only [without NEMA 4 (IP65)

enclosure]: 0.1 kg (4 oz); electronics

mounted in NEMA 4 (IP65) enclosure:

1.2 kg (43.2 oz)

### OS65 Accessories

Model No.	Price	Description
OS65-VW1.3	\$395	Viewing window, 1.3" dia. (8 to 14 μ)
OS65-VW.8	395	Viewing window, 0.8" dia. (8 to 14 μ)

Note: Use of viewing window requires additional sensor calibration.

Consult OMEGA for details.

### OS65/OS66 Common Accessories

Model No.	Price	Description
OS65-APC	\$75	Air purge collar
OS65-AWC	245	Air/water cooling jacket
OS550-MF	65	Mounting frame
OS550-MB	35	Right angle mounting bracket
OS550-MN	15	Mounting nut
OS65-NEMA4	100	NEMA 4 (IP65) electronics enclosure
OS65-NEMA12	50	NEMA 12 (IP52) electronics enclosure
OS65-AC	65	110/220 Vac adaptor
OS65-CC4	245	4-channel electronics card cage
OS65-CA	65	Conduit adaptor
OS65-PA	65	Pipe adaptor
OS65-RAA	195	Right angle adaptor
OS65-SV	195	Sighting viewer

Ordering Examples: OS65-K-R11-3-BB, OEM style infrared sensor, 0 to 1000°F range, Type K output, 15:1 optics, with OS550-LS, laser sighting accessory, \$395 + 195 = \$590.

OS65-J-R7-2-BB, OEM style infrared sensor, 0 to 500°F range, Type J output, 7:1 optics, with OS65-MF, mounting frame, and OS65-AC, 110/220 Vac adaptor, \$395 + 65 + 65 = \$525.

**For Models with Built-in Backlit LCD See OS550 Series!**

**OS65 Complete NEMA-4 System**  
**\$550**



The OS65 Series can be installed in your existing equipment or mounted with its own hardware for continuous monitoring of a process line. Since the OS65 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 includes installations that are moving, vibrating or subject to mechanical shock. This rugged design coupled with their relatively small dimensions makes these sensors ideally suited for a wide variety of applications where durability, size and low cost are important.

**Options for OS65 Series**

Order Suffix	Add'l Price	Description
-C50	\$50	15.2 m (50') cable [replaces 4.6 m (15') cable]
OS-NIST	115	NIST-traceable calibration certificate
-RS2†	75	RS232 comm
-RS4†	75	RS485 comm
-CE	47	CE marked model†

† Options RS2 and RS4 are mutually exclusive. Only one may be specified.  
 † Not available with -BB units.



OS65-J-R3-1-RS2, \$625, shown smaller than actual size.

Complete NEMA 4 system comes with OS65-RAB mounting bracket, OS65-MN mounting nut, 4.6 m (15') interconnecting cable. Electronics housed in OS65-NEMA4 (IEC529, IP65) enclosure.

These microprocessor-based modules offer a choice of temperature ranges, optical patterns or fields of view (3:1, 7:1, 15:1 or 24:1), and 6 outputs (J or K thermocouple, 1 mV/degree, 4 to 20 mA, 0 to 20 mA, and 0 to 5 Vdc) to feed directly into panel meters, temperature/process controllers, dataloggers, data acquisition systems or other instrumentation.

**Optical Table†**

Optics Code	FOV (Field of View)
-1	3:1
-2	7:1
-3	15:1
-4	24:1

**Range Table\***

Range Code	Temperature Range
-R1	-70 to 250°F
-R2	-57 to 125°C
-R3	0 to 250°F
-R4	0 to 125°C
-R5	-70 to 500°F
-R6	-57 to 250°C
-R7	0 to 500°F
-R8	0 to 250°C
-R9	-70 to 1000°F
-R10	-57 to 500°C
-R11	0 to 1000°F
-R12	0 to 500°C

**MOST POPULAR MODELS HIGHLIGHTED!**

**To Order Complete NEMA-4 Systems (Specify Model Number)**

Model No.	Price	Output Type	Compatible Meter
OS65-J(*)†	\$550	J	DP25-TC, DP41-TC
OS65-K(*)†	550	K	DP25-TC, DP41-TC
OS65-MV(*)†	550	1 mV/deg	DP25-E, DP41-E
OS65-MA1(*)†	550	4 to 20 mA	DP25-E, DP41-E
OS65-MA2(*)†	550	0 to 20 mA	DP25-E, DP41-E
OS65-V(*)†	550	0 to 5 Vdc	DP25-E, DP41-E

\* Insert temperature range code from range table above. † Insert optics code from optical table above. See optical diagrams on preceding page for complete details.  
**Ordering Examples:** OS65-K-R11-3, infrared transmitter with NEMA 4 enclosure, 0 to 1000°F range, Type K output, 15:1 optics, with OS-NIST, NIST-traceable calibration certificate, \$550 + 115 = **\$665**.  
 OS65-J-R3-2-C50-RS2, infrared transmitter with NEMA 4 enclosure, 0 to 250°F range, Type J output, 7:1 optics, 15.2 m (50') cable, and RS232 communications, \$550 + 50 + 75 = **\$675**.

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