

Infrared Thermometers

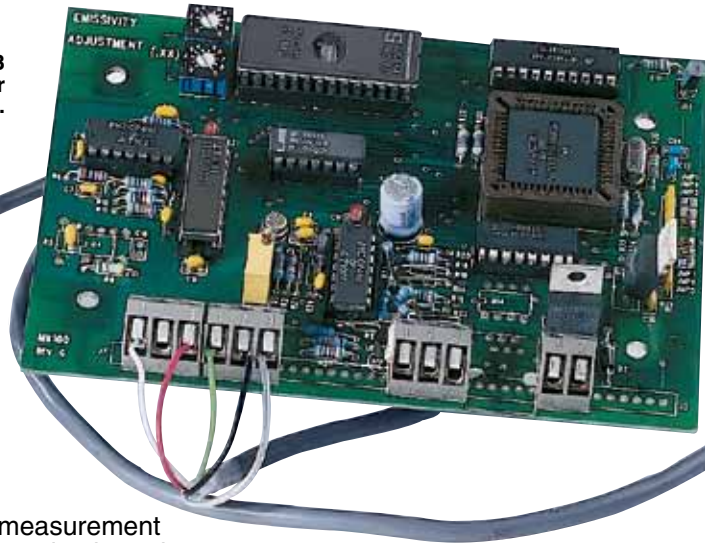
With Thermocouple, Voltage or Current Output

OS65-BB Series
OEM Style Unit



Optional

OS65-K-R11-3-BB
shown smaller
than actual size.



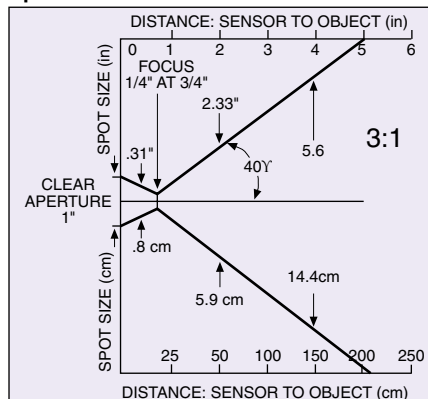
Non-contact temperature measurement has never been simpler or less expensive. OMEGA's OS65 Series of fixed mount infrared radiation thermometers rapidly and accurately measure the temperature of moving, inaccessible or fragile targets.

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).

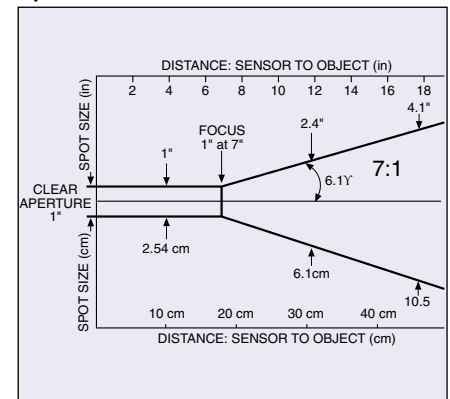
For those applications requiring a complete system, the OS65 Series is also supplied as a complete NEMA-4 system, which includes the infrared sensing head, OS65-RAB mounting bracket, OS65-MN mounting nut, 4.6 m (15') interconnecting cable and electronics card housed in a NEMA 4 (IEC529, IP65) enclosure.

- ✓ 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
- ✓ 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

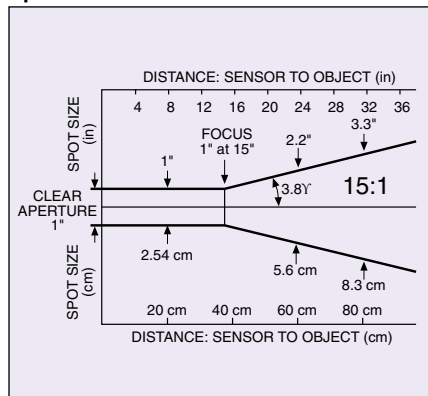
Optics Code-1



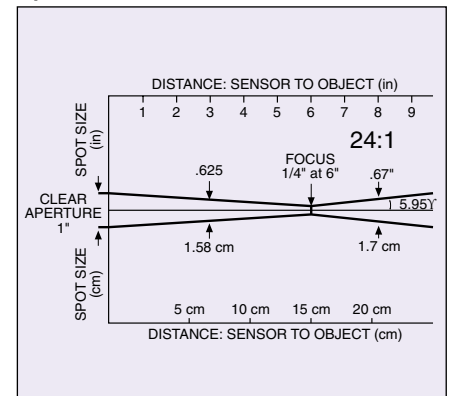
Optics Code-2



Optics Code-3



Optics Code-4



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.

Infrared Thermometer

OS65 Complete NEMA-4 System



Optional

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.

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.

Options for OS65 Series

Order Suffix	Description
-C50	15.2 m (50') cable [replaces 4.6 m (15') cable]
OS-NIST	NIST-traceable calibration certificate
-RS2 ²	RS232 comm
-RS4 ²	RS485 comm
-CE	CE marked model ¹

¹ Not available with -BB units.

² Options RS2 and RS4 are mutually exclusive. Only one may be specified.



OS65-J-R3-1-RS2 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.



For Models with Built-in Backlit LCD Visit Us Online

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



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Optical Table[†]

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

To Order

Model No.	Output Type	Compatible Meter
OS65-J(*) ^(†)	J	DP25-TC, DP41-TC
OS65-K(*) ^(†)	K	DP25-TC, DP41-TC
OS65-MV(*) ^(†)	1 mV/deg	DP25-E, DP41-E
OS65-MA1(*) ^(†)	4 to 20 mA	DP25-E, DP41-E
OS65-MA2(*) ^(†)	0 to 20 mA	DP25-E, DP41-E
OS65-V(*) ^(†)	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 at omega.com 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.

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.

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

Industrial Infrared Thermometers

OEM Style and NEMA Systems

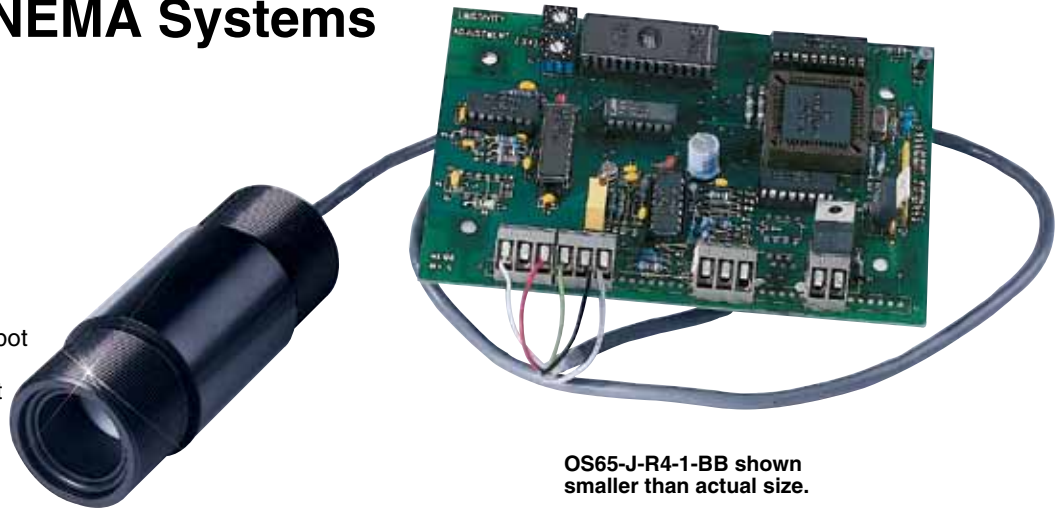
OS65 Series

Specifications

Accuracy: $\pm 1\%$ rdg or 1°C ($\pm 2^\circ\text{F}$)
Repeatability: $\pm 0.50\%$ 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 $\frac{1}{4}$ " at $\frac{3}{4}$ "; 7:1, minimum spot size 1" at 7"; 15:1, minimum spot size 1" at 15"; 24:1, minimum spot size $\frac{1}{4}$ " 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 maximum
Dimensions

Sensing Head:
 10.9 x 4.1 cm (4.30 x 1.63")
1½"-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-J-R4-1-BB shown smaller than actual size.

OEM Style Units

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

††For CE approval, Add "-CE" to model number for an additional cost.

* Insert temperature range code from range table at omega.com.

** Visit us online for panel meters.

† Insert optics code available online.

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

OS65 Accessories

Model No.	Description
OS65-VW1.3	Viewing window, 1.3" diameter (8 to 14 μ)
OS65-VW.8	Viewing window, 0.8" diameter (8 to 14 μ)

Note: Use of viewing window requires additional sensor calibration. Consult OMEGA for details.

OS65/OS66 Common Accessories

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

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.

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All models shown smaller than actual size.



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