

Rugged Infrared Thermocouple

17° (3:1) Field of View, Integral Air Cool/Purge Head

OS36-3 and
OS36-5 Series



OS36-3-K-240F
shown actual size.



- ✓ High-Quality Infrared Thermocouple
- ✓ All Stainless Steel Construction
- ✓ 3:1 Field of View for OS36-3
- ✓ Built-In Air Purge
- ✓ J, K, E, or T Thermocouple Output Signal
- ✓ Self-Powered
- ✓ Temperature Compensated

The OS36-3 and OS36-5 Series is ideal for use in paint or ink environments in which the sensor is mounted remotely from the target. In addition to the ruggedness and ease of use of the original OS36 Series, the hermetically sealed OS36-3 and OS36-5 Series is equipped with an internal air cool/purge system. This series exceeds all applicable NEMA standards and is intrinsically safe when used with appropriate barriers.

Specifications (General)

Accuracy: ±2% of nominal range; blackbody source

Repeatability: ±1% rdg

Temperature Coefficient: ±0.02% nominal range per °F

Temperature Compensation Range:

Complies with ASTM standards over 27 to 93°C (80 to 200°F) range

Operating Ambient Temperature Range: -18 to 85°C (0 to 185°F) with internal cold junction compensation

Air Purge: Built-in

Ambient Temperature Compensation:

With air flow of 1.1 SCFM (20 psig), maximum is 120°C (248°F)

Storage Temperature Range: -45 to 121°C (-50 to 250°F)

Response Time: 80 ms

Spectral Response: 6.5 to 14 microns

OS36-3

Range†: -45 to 650°C (-50 to 1200°F)

Field of View: 17° (3:1)

Minimum Spot Size: 6 mm (0.35")

Output Impedance: 4 to 8 kΩ (varies by model)

Dimensions: 45 L x 13 mm diameter (1.76 x 0.50");
0.9 m (36") PFA coated lead wires

Weight: 40 g (1.4 oz) with cable

OS36-5

Range†: -45 to 1100°C (-50 to 2000°F)

Field of View: 11° (5:1)

Minimum Spot Size: 20 mm (0.8")

Dimensions: 8.38 L x 3.49 cm diameter (3.3 x 1.375");
0.9 m (36") PFA coated lead wires

Weight: 184 g (6.5 oz) with cable

† See chart for linear ranges. Measurement is practical beyond thermocouple table values by use of radiation laws. Polynomials available upon request.



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.

Range Chart

Range Code	Temperature Range (2% accuracy)
50F	-18 to 27°C (0 to 80°F)
80F	10 to 49°C (50 to 120°F)
98.6F	16 to 39°C (60 to 102°F)
140F	25 to 80°C (80 to 180°F)
180F	70 to 104°C (160 to 220°F)
240F	95 to 130°C (200 to 270°F)
280F	125 to 155°C (260 to 310°F)
340F	145 to 175°C (290 to 350°F)
440F	170 to 250°C (340 to 480°F)

To Order			
Model No.	Description	Model No.	Description
OS36-3-J-(*)	J thermocouple	OS36-5-J-(*)	J thermocouple
OS36-3-K-(*)	K thermocouple	OS36-5-K-(*)	K thermocouple
OS36-3-T-(*)	T thermocouple	OS36-5-T-(*)	T thermocouple
OS36-3-E-(*)	E thermocouple	OS36-5-E-(*)	E thermocouple

* Specify temperature range code from range chart above.

Comes complete with operator's manual.

Note: Stripped leads are standard. To order with GMP subminiature low-noise thermocouple connector pair, add suffix "-GMP" to model number, for an additional cost. To order with GST standard-size low-noise thermocouple connector pair, add suffix "-GST" to model number, for an additional cost.

Ordering Examples: OS36-3-J-240F-GMP, IR thermocouple sensor Type J, with 95 to 130°C (200 to 270°F) range, GMP low-noise subminiature connectors. OCV-2, OMEGACARESM extends standard 2-year warranty to a total of 4 years. OS36-5-K-240F, IR thermocouple sensor Type K with 95 to 130°C (200 to 270°F) range.