

Adjustable Temperature Range Fixed IR Sensor

OS37-38-Series OS37-CF and OS38-CF Models



OS37-CF shown actual size.

- ✓ 30° or 1°(60:1) Field of View
- ✓ Built-In Air Purge
- ✓ Self-Powered
- ✓ Measurements to 2500°C (4500°F)

The OS37-CF/OS37-60CF Model infrared thermocouples for high-emissivity targets (non-metals and coated metals) and the OS38-CF/OS38-60CF Series for low-emissivity targets (clean metals) feature an internal screw that adjusts the 2% accuracy band anywhere within the overall temperature range. All of these units use a lens to produce a minimum spot at a focal point. Models with 30° optics produce a rectangular minimum spot size in the focal plane by using a masked detector. Models with 1° (60:1) optics produce a more conventional round minimum spot size at a focal point. All models feature a built-in air purge.

Specifications

Linear Range Selections:

J, K, T, E, R, or S; adjustable over entire sensing range

Output Impedance:

OS37: 6 to 13 kΩ

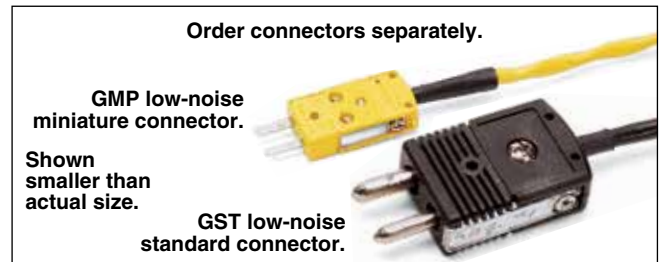
OS38: 9 to 18 kΩ

Operating Ambient Temperature Range:

-18 to 85°C (0 to 185°F)

Air Purge: Built-in

Ambient Temperature Compensation: With air flow of 1.1 SCFM (20 psig), maximum ambient is 204°C (400°F)



Order connectors separately.

GMP low-noise miniature connector.

Shown smaller than actual size.

GST low-noise standard connector.

To Order	
Model No.	Field of View
High-Emissivity Models	
OS37-CF-(*)	30°
OS37-60CF-(***)	1°
Low-Emissivity Models	
OS38-CF-(**)	30°
OS38-60CF-(***)	1°

* Specify thermocouple Type J, K, E or T. ** Specify thermocouple Type J or K. *** Specify thermocouple Type R or S.

Comes complete with set of apertures and operator's manual.

Note: Stripped leads are standard. Order miniature GMP or standard GST connectors separately.

Ordering Examples: OS37-60CF-R, high-emissivity sensor, 1° field of view, Type R output.

OS37-CF-K, high emissivity sensor, 30° field of view, Type K output.

Model No.	Field of View	Min Spot Size mm (inch)	Spectral Response	Range† °C (°F)	Dimensions L x Dia./mm (inch)	Weight g (oz)
OS37-CF	30°	2 x 15 (0.1 x 0.6) @ 40 (1.6)	2 to 20 microns	-18 to 1370 (0 to 2500)	58.4 x 35 (2.3 x 1.375)	184 (6.5)
OS37-60CF	1°	6 (0.25) @ 305 (12)	2 to 20 microns	540 to 2200 (1000 to 4000)	213 x 35 (8.375 x 1.375)	570 (20)
OS38-CF	30°	2 x 15 (0.1 x 0.6) @ 40 (1.6)	0.1 to 5 microns	260 to 1370 (500 to 2500)	58.4 x 35 (2.3 x 1.375)	184 (6.5)
OS38-60CF	1°	6 (0.25) @ 305 (12)	0.1 to 5 microns	820 to 2500 (1500 to 4500)	213 x 35 (8.375 x 1.375)	570 (20)

† Measurement is practical beyond thermocouple table values by use of radiation laws. Polynomials available on request. Units must be adjusted for a narrow 2% accuracy range in field.

