

Subminiature Infrared Thermocouples

Higher Performance, Lower Cost

OS36SM Series



- ✓ No Thermal Mass Errors
- ✓ No Moving Parts
- ✓ Self-Powered with No Internal or External Power Requirements
- ✓ No Frictional Heat Errors for Moving Surfaces
- ✓ Temperature Compensated

Specifications

Ambient Temperature Range:

-20 to 85°C (-4 to 100°F)

internal case temperature

Storage Temperature Range:

-20 to 85°C (-4 to 100°F)

Field of View of Sensing Element:

1:2 (distance:spot)

Minimum spot size: 3 mm (0.1")

@ zero distance

Dominant Spectral Response:

6.5 to 14 microns

Output Sensor:

Type K thermocouple

Impedance: 20 to 60 kΩ (varies depending on temperature range)

Compatibility Note: This unit's extremely high impedance output may not allow it to be used with some meters

Emissivity: 0.90 fixed

Measurement Type: Thermopile

Response Time (95% of Step Change): 150 ms

Accuracy (Interchangeability):

1% under factory calibration conditions

Housing: 303 SS

Cable Assembly: 1 m (36")

30 AWG solid wire with glass braid insulation and tin/copper overbraid

Humidity: Non-condensing

Power Requirements: None

Sealed: Hermetically; exceeds

NEMA 4 and 4X (IP65 and 66) ratings

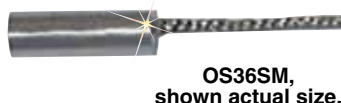
Weight: Approx 30 g (1 oz)

Optional Air Purge Jacket

(OS36SM-APJ):

Dimensions: 9.5 OD x 76 mm L (0.38 x 3")

Easy Mounting: Slip on and tighten mounting ring



**Type K
Sensor Output**

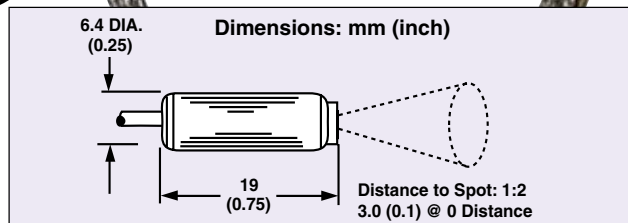
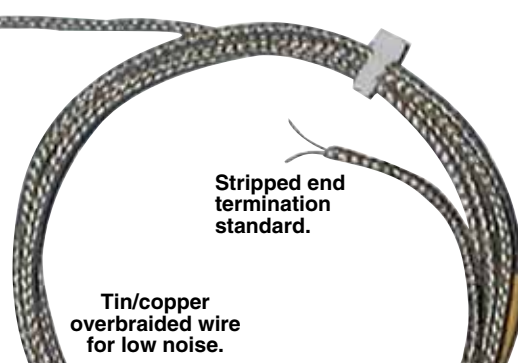


Add a
Connector
Pair!



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

Ordering Example:
OS36SM-K-140F-GMP,
IR thermocouple sensor,
GMPW low-noise subminiature
connector pair.



To Order Visit omega.com/os36sm for Pricing and Details

Model No.	Description
OS36SM-K-(*)	Type K infrared thermocouple

* Specify temperature range code from chart below.

Accessories

Model No.	Description
OS36SM-MR	Stainless steel mounting ring, with silicone cushions, 6 mm (0.25") diameter
OS36SM-APJ	Aluminum air purge jacket, 9.5 x 76 mm (3/8 x 3") diameter, cooling at 175°C (347°F)
OS36SM-MR-APJ	Stainless steel mounting ring for air purge jacket with silicone cushions, 10 mm (0.38") diameter
OS36SM-MRR	Metal clamp mounting ring with rubber cushion, 45.97 x 19.81 mm (1.81 x 0.78")
OS36SM-MRB	Stainless steel mounting ring bracket with silicone cushions, 13 mm (0.50") diameter
OS36SM-RAMR	Stainless steel right-angle mounting ring used for mounting through fittings
OS36SM-APJF	Plastic air purge jacket fitting with lock nut, sealing nut and hub, 29.7 x 14.99 mm (1.17 x 0.59"); PG-7 thread metal clamp with rubber cushion for mounting, 45.97 x 19.81 mm (1.81 x 0.78")
OS36SM-MTF	Plastic fitting with lock & sealing nut and hub, 29.7 x 14.99 mm (1.17 x 0.59"), PG-7 thread

Range Code	Temperature Range
50F	-18 to 30°C (0 to 85°F)
80F	0 to 50°C (32 to 120°F)
140F	20 to 90°C (70 to 190°F)
180F	60 to 105°C (140 to 220°F)
240F	80 to 120°C (180 to 250°F)
280F	115 to 165°C (240 to 330°F)
340F	140 to 190°C (280 to 370°F)
440F	160 to 260°C (320 to 500°F)

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