Subminiature Infrared Thermocouples
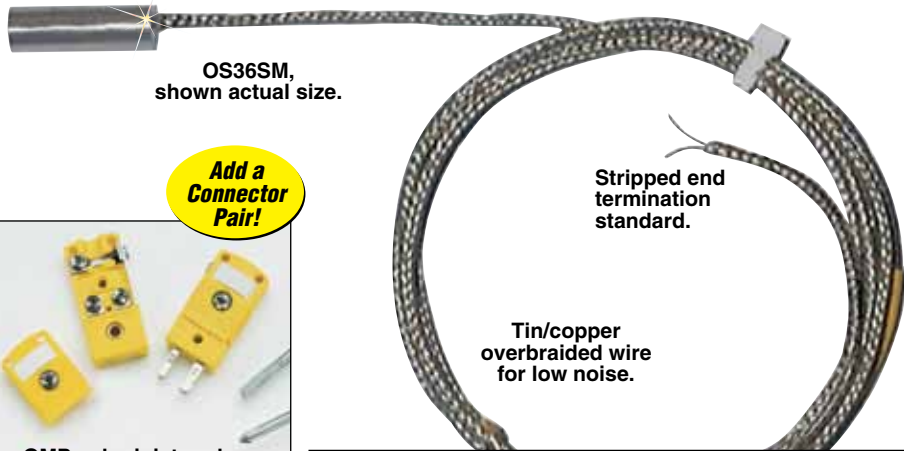## Higher Performance, Lower Cost

Type K Sensor Output

OS36SM Series

2 YEAR WARRANTY **CE** **RoHS**

✔ **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**

OS36SM, shown actual size.

Add a Connector Pair!

Stripped end termination standard.

Tin/copper overbraided wire for low noise.

GMP subminiature low noise thermocouple connector.

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
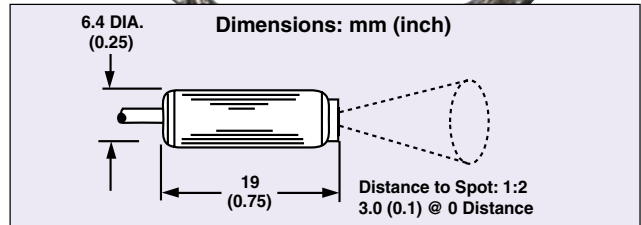**Humidity:** Non-condensing
Power Requirements: None
Sealed: Hermetically; exceeds NEMA 4 and 4X (IP65 and 66) ratings
Weight: Approx 30 g (1 oz)
Optional Air Purge Jacket (OS36SM-APJ):
  Dimensions: 9.5 OD x 76 mm L (0.38 x 3")
  Easy Mounting: Slip on and tighten mounting ring

6.4 DIA. (0.25)

Dimensions: mm (inch)

19 (0.75)

Distance to Spot: 1:2
3.0 (0.1) @ 0 Distance

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)

To Order

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

*** Specify temperature range code from chart above.**

Note: Stripped leads are standard. To order with a **GMP** 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.

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 (⅜ 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 and sealing nut and hub, 29.7 x 14.99 mm (1.17 x 0.59"), PG-7 thread