

# Subminiature Infrared Thermocouples

Higher Performance, Lower Cost

Type K  
Sensor Output

OS36SM Series

\$99



Tin/copper overbraided wire for low noise.

Works with  
HHM290  
SUPERMETER®!

Stripped end termination standard.

OS36SM, \$99, shown actual size.

- ✓ 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



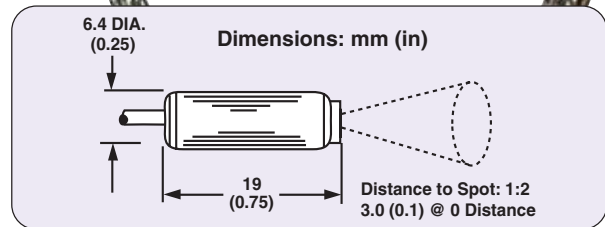
Add a  
Connector  
Pair!



GMPW subminiature low noise thermocouple connector.

**Note:** Stripped leads are standard. To order with a GMPW subminiature low-noise thermocouple connector pair, add suffix "-GMP" to model number and add \$12 to price. To order with standard-size low-noise thermocouple connector pair, add suffix "-GST" to model number and add \$12 to price.

**Ordering Example:**  
OS36SM-K-140F-GMP  
IR T/C sensor, GMPW low-noise subminiature connector pair,  
\$99 + 12 = \$111.



## To Order (Specify Model Number)

Model No.	Price	Description
OS36SM-K-(* )	\$99	K-type infrared thermocouple

\* Specify temperature range code from chart below.

## Accessories

Model No.	Price	Description
OS36SM-MR	\$12	Mounting ring. Stainless steel, with silicone cushions, 6 mm (0.25") diameter
OS36SM-APJ	44	Air purge jacket. Aluminum, 9.5 x 76 mm (3/8 x 3") diameter, cooling at 175°C (347°F)
OS36SM-MR-APJ	12	Mounting ring for air purge jacket. Stainless steel, with silicone cushions, 10 mm (0.38") diameter
OS36SM-MRR	12	Mounting ring with rubber cushion. Metal clamp with rubber cushion for mounting, 45.97 x 19.81 mm (1.81 x 0.78")
OS36SM-MRB	12	Mounting ring bracket. Stainless steel, with silicone cushions, 13 mm (0.50") diameter
OS36SM-RAMR	12	Right-angle mounting ring. Stainless steel, used for mounting through fittings
OS36SM-APJF	12	Air purge jacket fitting. Plastic 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	12	Plastic fitting with lock & sealing nut and hub, 29.7 x 14.99 mm (1.17 x 0.59"), PG-7 thread

**MOST POPULAR RANGES HIGHLIGHTED!**

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)



#### UNITED STATES

[www.omega.com](http://www.omega.com)  
1-800-TC-OMEGA  
Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)  
Laval(Quebec)  
1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)  
Deckenpfronn, Germany  
0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)  
Manchester, England  
0800-488-488

#### FRANCE

[www.omega.fr](http://www.omega.fr)  
Guyancourt, France  
088-466-342

#### CZECH REPUBLIC

[www.omegaeng.cz](http://www.omegaeng.cz)  
Karviná, Czech Republic  
596-311-899

#### BENELUX

[www.omega.nl](http://www.omega.nl)  
Amstelveen, NL  
0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters