

Ultra-Fast Response Foil Thermocouples



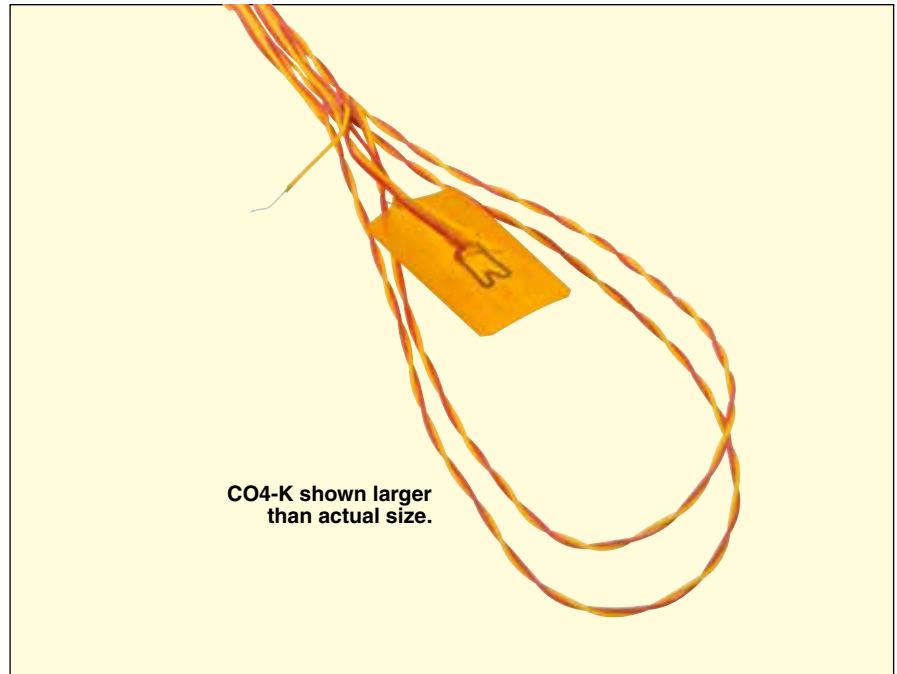
CO4-K Series



- ✓ Ideal for Surface Temperature Measurement
- ✓ Ultra-Fast Response Time < 10 milliseconds
- ✓ Made From ± 0.05 mm (0.002") Foil

Omega's CO4-K Ultra-Fast Response Foil Thermocouples have been designed and fabricated to work in harsh environments where response time characteristics for the process are required to be measured in the order of a few milliseconds.

The 0.002" Thermocouple Junction Foil Thickness provides for Low Mass and Thermal Inertia. Using such a delicate bare foil on the measurement surface could have resulted in a lot of installation losses. We protect the sensing junction with a polymer matrix encapsulation to offer a flexible yet tough plug and play sensor — quick to install with accurate and repeatable measurements every time.



CO4-K shown larger than actual size.

Specifications

Application: Temperature measurement on flat and curved surfaces

Calibration: Type K

Temperature Range: -200 to 300°C (-328 to 572°F)

Sensor Foil Thickness: ± 0.05 mm (0.002")

Mounting Laminate Size:

10 W x 20 mm L (0.39 x 0.78")

The Laminate can be further cut to suit application areas.

Junction Geometry: Strain free junction design

Termination: Flexible PTFE insulated leads with thermocouple grade conductor. Connector termination can be provided on specific request.

To Order

Model No.	Description
CO4-K-40	Ultra-fast response foil thermocouple, 1 m (40")
CO4-K-80	Ultra-fast response foil thermocouple, 2 m (80")
CO4-K-120	Ultra-fast response foil thermocouple, 3 m (120")

The temperature range high limits given are greatly influenced by environmental conditions, installation method, accuracy and lifetime requirements and may vary from the general guidelines listed in the table.

Response time when "grounded" or "cemented" to surface: < 10 milliseconds.

The response time or "time constant" is the time required to reach 63.2% of an instantaneous temperature change.

Additional length wire can be provided against specific orders, contact Omega.

Ordering Example: CO4-K-80, is Type K thermocouple, 2 m (80") wire length.