

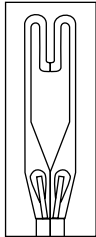
# “Cement-On” Thermocouples

- ✓ Response Time in Milliseconds
- ✓ Made from 0.013 mm (0.0005") Foil and 0.25 mm (0.010") Diameter Thermocouple Wire
- ✓ Very Low Thermal Inertia
- ✓ Four Calibrations J, K, E, and T
- ✓ Three Styles Ideal for Surface Measurement

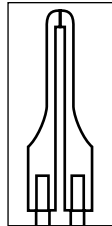
OMEGA introduces its Cement-On, fast response thermocouples for fast surface temperature measurement applications in three convenient styles. Styles 1 and 2 are made from 0.013 mm (0.0005") thermocouple alloy foil by a special process where the butt welded thermocouple junction is 0.013 mm (0.0005") in thickness. Styles 1 and 2 are flat, extremely low inertia construction and are an ideal means of measuring the temperature of both flat and curved metals, plastic and ceramic surfaces where very fast response is desired.

OMEGA's Cement-On Style 1 and 2 thermocouples are fabricated from ANSI "Special Limits of Error" grade thermocouple materials in K, E and T calibrations and yield accurate temperature indication when used with standard thermocouple instrumentation. Styles 1 and 2 have the fastest response. Style 3 is an economy version constructed from 0.25 mm (0.010") diameter bead welded standard limit of error thermocouple wire. It should be used where extremely fast response is not essential.

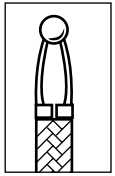
## CO Series



Style 1  
1 m (40")  
leads  
standard



Style 2  
150 mm  
(6") leads  
standard



Style 3  
1 m (40")  
leads  
standard



MEETS OR EXCEEDS  
SPECIAL LIMITS  
OF ERROR (SLE)  
AND EN 60584-2:  
Tolerance Class 1

Dimensions and  
Additional Information  
Available at  
[omega.com/co-k](http://omega.com/co-k)

**To Order** Visit [omega.com/co-k](http://omega.com/co-k) for Pricing and Details

Model No.	Style	Thermocouple Type	Length	Maximum Temperature °C (°F)*		
				Continuous	600 hr	10 hr
CO1-K	1	K CHROME <sup>®</sup> ALOMEGA <sup>®</sup>	1 m (40")	260 (500)	315 (600)	370 (700)
CO1-E		E CHROME <sup>®</sup> Constantan	1 m (40")	260 (500)	315 (600)	370 (700)
CO1-T		T Copper - Constantan	1 m (40")	150 (300)	205 (400)	260 (500)
CO2-K	2	K CHROME <sup>®</sup> ALOMEGA <sup>®</sup>	150 mm (6")	540 (1000)	540 (1000)	650 (120)
CO2-E		E CHROME <sup>®</sup> Constantan	150 mm (6")	425 (800)	425 (800)	540 (1000)
CO2-T		T Copper-Constantan	150 mm (6")	150 (300)	150 (300)	260 (500)
CO3-J	3	J Iron - Constantan	1 m (40")	260 (500)	370 (700)	370 (700)
CO3-K		K CHROME <sup>®</sup> ALOMEGA <sup>®</sup>	1 m (40")	260 (500)	370 (700)	370 (700)
CO3-E		E CHROME <sup>®</sup> Constantan	1 m (40")	260 (500)	370 (700)	370 (700)
CO3-T		T Copper-Constantan	1 m (40")	205 (400)	260 (500)	370 (700)

\* 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.

Style 1 and 3 cannot be used with CC High Temperature Cement; CC Cement will break down insulation.

Response time when "grounded" or "cemented" to surface: **Style 1** (10 to 20 milliseconds), **Style 2** (2 to 5 milliseconds), **Style 3** (300 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 ordered for Styles 1 and 3, add cost per 300 mm (12"), for Style 2 add cost per 300 mm (12").

**Ordering Example:** CO1-K is a style 1, Type K thermocouple, 1 m (40") long.