Super OMEGACLAD® XL Thermocouple Probes
A Technological Advance in Temperature Measurement

- Thermocouple Technology from OMEGA for K and N Calibrations Only
- Super Stable Temperature Drift—Less than 2.8°C in 25 weeks
- Better Performance at a Smaller Size—0.8 mm Probe Withstands 815°C (1500°F) for 3 Years
- Probe Life Expectancy up to 10 Times Greater than Competing Devices*
- Handles Temperatures Up to 1335°C (2400°F)

OMEGA brings you the Super OMEGACLAD® XL Thermocouple Probe family, the exclusive innovation in thermocouple technology. Manufactured using state-of-the-art processes for mineral insulated (MI) thermocouple cable and finished thermocouple probe assemblies, these temperature sensors maximize performance, even at extremely small diameters. The devices resist carburization, oxidation, and chlorination in tough environments.

Small Size, Big Performance!
Typical 0.8 mm (0.032") Dia. Type K probes have a maximum temperature of 700°C (1260°F). Our Super OMEGACLAD® XL 0.8 mm (0.032") Dia. probe took on 815°C (1500°F) for 3 years and even reached 1000°C (1832°F) for 2 months!

Probes shown ~50% smaller than actual size.
** Approx response time—ungrounded in water

Long Life, Low Maintenance!
If your application operates at the punishing temperature of nearly 1204°C (2200°F), changing out failed thermocouples costs money in excessive maintenance, slows or cuts production, and can cause inconsistent product quality.

In head-to-head tests, Super OMEGACLAD® XL Thermocouple probes consistently post the best performance results. Our innovative temperature sensors last upwards of 10 times or longer when compared to competitors’ Inconel® 600 sheathed probes of equal or larger diameters. Let OMEGA’s leading edge products help engineer your next innovation!

1204°C (2200°F) replace 17 of theirs in 52 days or just one of ours!
In life-cycle lab testing, the OMEGACLAD® XL sheathed, 0.125” Type K Probe operated continuously for 52 days at 1204°C (2200°F) while competitors’ 0.125” Inconel® 600 sheathed, Type K probes lasted 3 days.†
† Results will vary on application and operating environment.
Inconel® 600

Typical OMEGACLAD® XL Type K Calibration 1.6 mm (1/8 in) Diameter Probes Super OMEGACLAD® XL vs. Competitors

- Deviation °F
  - -16.6: -13.9: -11.1: -8.3: -5.5: -2.8: 0: 2.8
- Deviation °C
  - -8.3: -5.6: -2.8: 0: 2.8: 5.5: 10: 15

Long-Term Drift °C

- OMEGACLAD® XL: 4.6°C (8.4°F)
- Brand A: 8.3°C
- Brand B: 5.6°C
- Inconel® 600

Take on High Temperatures!

In tests up to 1335°C (2400°F), Super OMEGACLAD® XL outperformed both the Inconel® 600 and other competing high-temperature models.

Low Drift, Reliable Temperatures!

Super OMEGACLAD® XL’s low-drift characteristic ensures reliability of temperature readings longer than any other brand or sheath material. Within 15 weeks, Brands A, B, and C exhibited more than 8.3°C drift. At 25 weeks, OMEGACLAD® XL’s drift was less than 2.8°C.*

* Tests conducted using ungrounded probes in an open-air, electric, muffle furnace versus a Type “S”, NIST-traceable standard. Individual results may vary depending on customer application. Inconel® is a registered trademark of Special Metals Corporation.

OMEGA’s products making OMEGA®’s products. OMEGA uses Super OMEGACLAD® XL thermocouple probes in its Class 10 clean rooms to monitor critical process temperatures and achieve consistent, high-quality products.

Available as

Look for this logo to identify probes available in Super OMEGACLAD® XL sheathed thermocouple wire and probes.

TJ36-CAXL-18U-12, shown smaller than actual size. See pages A-45 through A-48 for OMEGA’s Super OMEGACLAD® XL probe offerings.

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