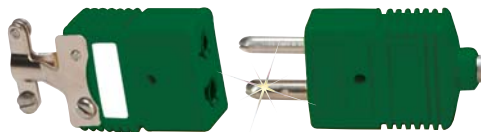




Super OMEGACLAD® XL Thermocouple Probes

A Technological Advance in Temperature Measurement

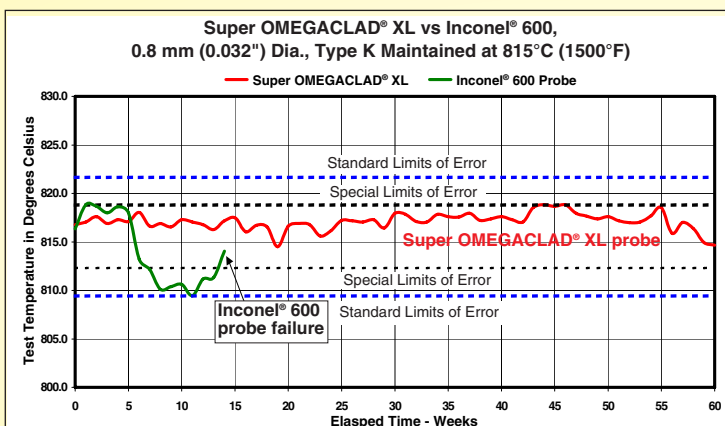
High Performance!



KQXL-IM30U-300, £19.25, shown smaller than actual size.

- ✓ New Thermocouple Technology from OMEGA
- ✓ 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 for 3 Years
- ✓ Probe Life Expectancy up to 10 Times Greater than Competing Devices*
- ✓ Handles Temperatures Up to 1335°C

OMEGA brings you the Super OMEGACLAD® XL Thermocouple Probe family, the latest, **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 maximise performance, even at extremely small diameters. The devices resist carburisation, oxidation, and chlorination in tough environments.



* 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.

Small Size, Big Performance!

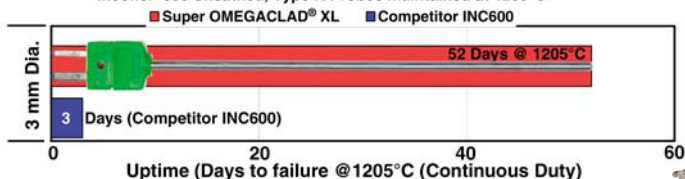
Typical 0.8 mm Dia. Type K probes have a maximum temperature of 700°C. Our Super OMEGACLAD® XL 0.8 mm Dia. probe took on 815°C for 3 years and even reached 1000°C for 2 months!

6 mm	2.25 sec**
3 mm	0.55 sec**
1.5 mm	0.3 sec**
0.75 mm	~0.25 sec**

Probes shown ~50% smaller than actual size.

**Approx. response time—ungrounded in water

Life Performance of Super OMEGACLAD® XL Sheathed, Type K Probes versus Inconel® 600 Sheathed, Type K Probes maintained at 1205°C



1200°C? Replace 17 of theirs in 52 days or just one of ours!

In life-cycle lab testing, the Super OMEGACLAD® 310XL Sheathed, 3 mm Type K Probe operated continuously for 52 days at 1205°C while competitors' 3 mm Inconel® 600 Sheathed, Type K Probes lasted 3 days.[†]

[†]Results will vary on application and operating environment.

Long Life, Low Maintenance!

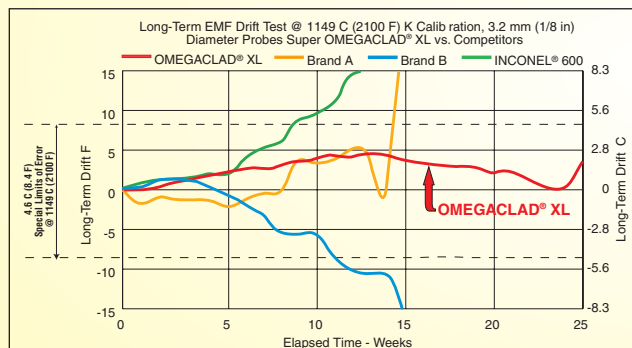
If your application operates at the punishing temperature of 1200°C, changing out failed thermocouples costs money in excessive maintenance, slows or cuts production, and can cause inconsistent product quality.

In head-to-head tests, Super OMEGACLAD® 310XL Thermocouple probes consistently achieve the best performance results. Our innovative temperature sensors last over 10 times 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!*



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", 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.



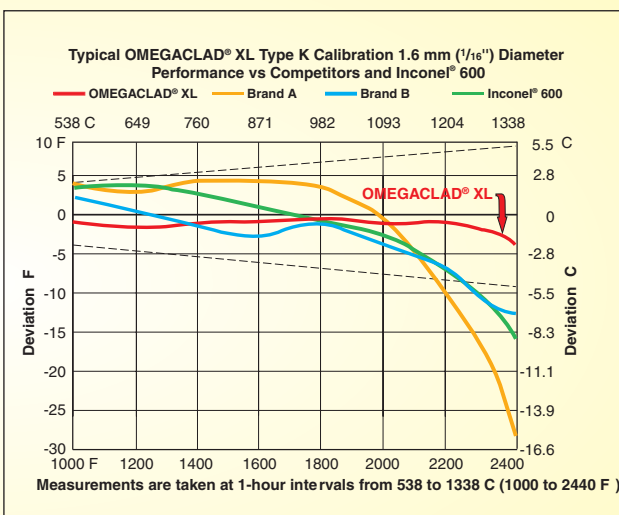
Look for this logo to identify probes available in Super OMEGACLAD® XL sheathed thermocouple wire and probes

TJ1-CAXL-IM30U-300, £13.75 shown smaller than actual size. See pages 16 and 17 for OMEGA's Super OMEGACLAD® XL probe offerings.



NB12-CAXL-IM60G-300, £37.75, shown smaller than actual size.

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.





Super OMEGACLAD® XL Probes

Very Low *Drift* at **High Temperatures**

Meets Class 1 Specs! Super Accurate, Super Stable, Super Value!

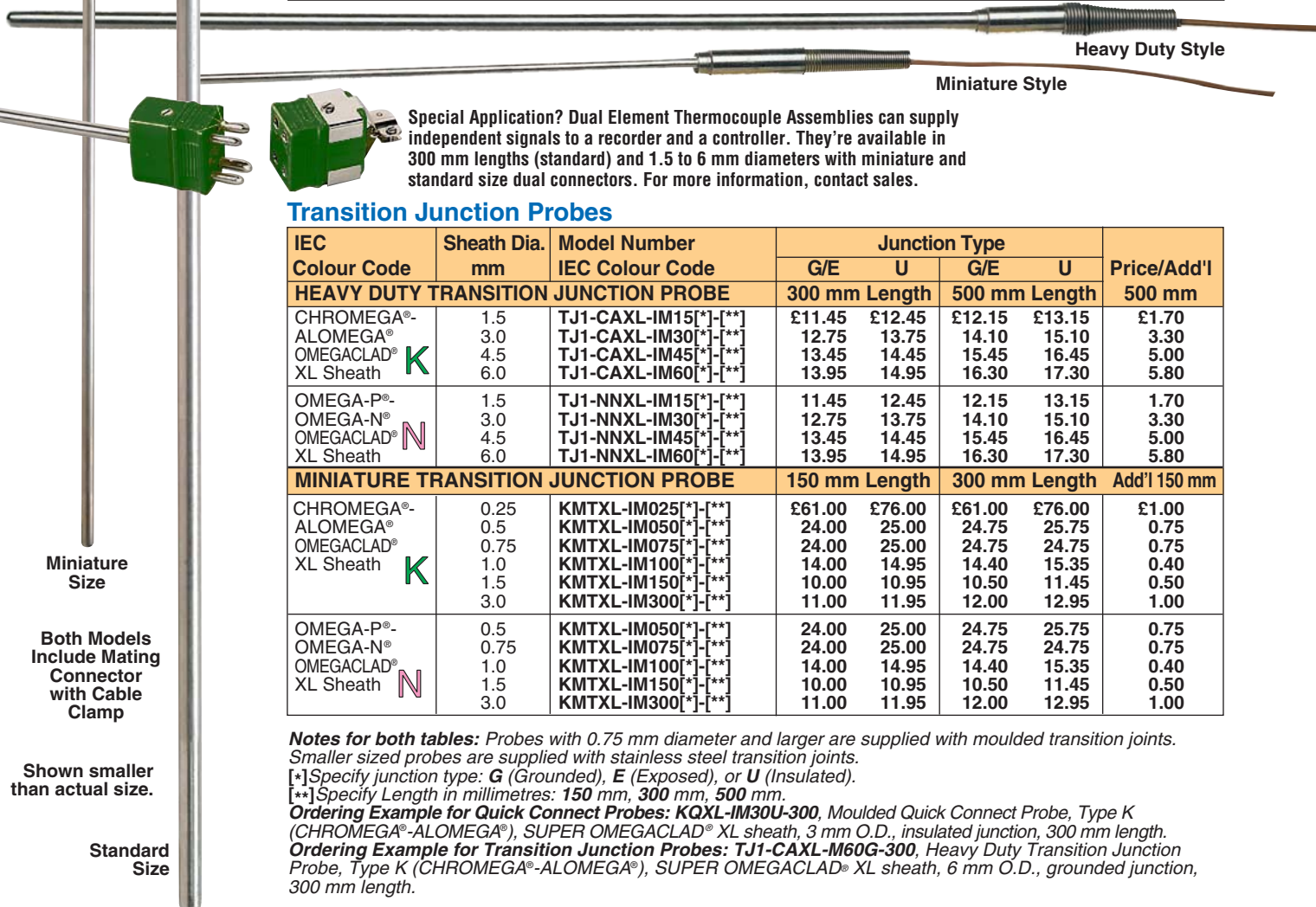
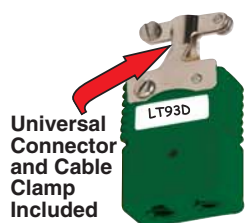
- ✓ For Use Up to 1335°C
- ✓ 1150°C Continuous Use
- ✓ Excellent Long Term Stability at High Temperatures

- ✓ Probes Individually Pressure and Insulation Tested
- ✓ Excellent oxidation, Carburisation and Chlorination Resistance

Quick Connect Probes

ALL MODELS AVAILABLE FOR FAST DELIVERY!

IEC Colour Code	Sheath Dia. mm	Model Number IEC Colour Code	Junction Type				Price/Add'l
			G/E	U	G/E	U	
STANDARD CONNECTOR			150 mm Length		300 mm Length		300 mm
CHROMEGA®- ALOMEGA® OMEGACLAD® XL Sheath K	1.5	KQXL-IM15[*]-[**]	£17.00	£18.00	£17.50	£18.50	£1.00
	3.0	KQXL-IM30[*]-[**]	18.25	19.25	19.25	20.25	2.00
	4.5	KQXL-IM45[*]-[**]	19.50	20.50	21.00	22.00	3.00
	6.0	KQXL-IM60[*]-[**]	20.25	21.25	22.00	23.00	3.50
OMEGA-P®- OMEGA-N® OMEGACLAD® XL Sheath N	1.5	NQXL-IM15[*]-[**]	17.00	18.00	17.50	18.50	1.00
	3.0	NQXL-IM30[*]-[**]	18.25	19.25	19.25	20.25	2.00
	4.5	NQXL-IM45[*]-[**]	19.50	20.50	21.00	22.00	3.00
	6.0	NQXL-IM60[*]-[**]	20.25	21.25	22.00	23.00	3.50
MINIATURE CONNECTOR			150 mm Length		300 mm Length		Add'l 150 mm
CHROMEGA®- ALOMEGA® OMEGACLAD® XL Sheath K	0.25	KMQXL-IM025[*]-[**]	£62.00	£77.00	£63.00	£78.00	£1.00
	0.5	KMQXL-IM050[*]-[**]	28.75	30.00	29.50	30.75	0.75
	0.75	KMQXL-IM075[*]-[**]	28.75	30.00	29.50	30.75	0.75
	1.0	KMQXL-IM100[*]-[**]	19.20	20.50	19.60	20.90	0.40
	1.5	KMQXL-IM150[*]-[**]	15.20	16.50	15.70	17.00	0.50
	3.0	KMQXL-IM300[*]-[**]	16.20	17.50	17.20	18.50	1.00
OMEGA-P®- OMEGA-N® OMEGACLAD® XL Sheath N	0.5	NMQXL-IM050[*]-[**]	28.75	30.00	29.50	30.75	0.75
	0.75	NMQXL-IM075[*]-[**]	28.75	30.00	29.50	30.75	0.75
	1.0	NMQXL-IM100[*]-[**]	19.20	20.50	19.60	20.90	0.40
	1.5	NMQXL-IM150[*]-[**]	15.20	16.50	15.70	17.00	0.50
	3.0	NMQXL-IM300[*]-[**]	16.20	17.50	17.20	18.50	1.00



Special Application? Dual Element Thermocouple Assemblies can supply independent signals to a recorder and a controller. They're available in 300 mm lengths (standard) and 1.5 to 6 mm diameters with miniature and standard size dual connectors. For more information, contact sales.

Transition Junction Probes

IEC Colour Code	Sheath Dia. mm	Model Number IEC Colour Code	Junction Type				Price/Add'l
			G/E	U	G/E	U	
HEAVY DUTY TRANSITION		JUNCTION PROBE	300 mm Length		500 mm Length		500 mm
CHROMEGA®- ALOMEGA® OMEGACLAD® XL Sheath K	1.5	TJ1-CAXL-IM15[*]-[**]	£11.45	£12.45	£12.15	£13.15	£1.70
	3.0	TJ1-CAXL-IM30[*]-[**]	12.75	13.75	14.10	15.10	3.30
	4.5	TJ1-CAXL-IM45[*]-[**]	13.45	14.45	15.45	16.45	5.00
	6.0	TJ1-CAXL-IM60[*]-[**]	13.95	14.95	16.30	17.30	5.80
OMEGA-P®- OMEGA-N® OMEGACLAD® XL Sheath N	1.5	TJ1-NNXL-IM15[*]-[**]	11.45	12.45	12.15	13.15	1.70
	3.0	TJ1-NNXL-IM30[*]-[**]	12.75	13.75	14.10	15.10	3.30
	4.5	TJ1-NNXL-IM45[*]-[**]	13.45	14.45	15.45	16.45	5.00
	6.0	TJ1-NNXL-IM60[*]-[**]	13.95	14.95	16.30	17.30	5.80
MINIATURE TRANSITION		JUNCTION PROBE	150 mm Length		300 mm Length		Add'l 150 mm
CHROMEGA®- ALOMEGA® OMEGACLAD® XL Sheath K	0.25	KMTXL-IM025[*]-[**]	£61.00	£76.00	£61.00	£76.00	£1.00
	0.5	KMTXL-IM050[*]-[**]	24.00	25.00	24.75	25.75	0.75
	0.75	KMTXL-IM075[*]-[**]	24.00	25.00	24.75	24.75	0.75
	1.0	KMTXL-IM100[*]-[**]	14.00	14.95	14.40	15.35	0.40
	1.5	KMTXL-IM150[*]-[**]	10.00	10.95	10.50	11.45	0.50
	3.0	KMTXL-IM300[*]-[**]	11.00	11.95	12.00	12.95	1.00
OMEGA-P®- OMEGA-N® OMEGACLAD® XL Sheath N	0.5	KMTXL-IM050[*]-[**]	24.00	25.00	24.75	25.75	0.75
	0.75	KMTXL-IM075[*]-[**]	24.00	25.00	24.75	24.75	0.75
	1.0	KMTXL-IM100[*]-[**]	14.00	14.95	14.40	15.35	0.40
	1.5	KMTXL-IM150[*]-[**]	10.00	10.95	10.50	11.45	0.50
	3.0	KMTXL-IM300[*]-[**]	11.00	11.95	12.00	12.95	1.00

Notes for both tables: Probes with 0.75 mm diameter and larger are supplied with moulded transition joints. Smaller sized probes are supplied with stainless steel transition joints.

[*]Specify junction type: **G** (Grounded), **E** (Exposed), or **U** (Insulated).

[**]Specify Length in millimetres: 150 mm, 300 mm, 500 mm.

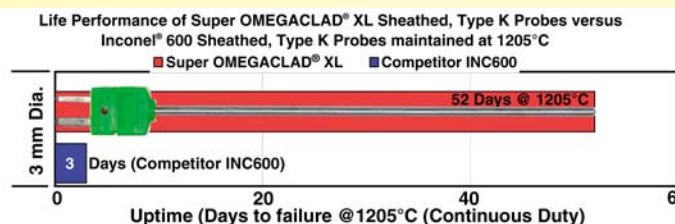
Ordering Example for Quick Connect Probes: KQXL-IM30U-300, Moulded Quick Connect Probe, Type K (CHROMEGLA®-ALOMEGA®), SUPER OMEGACLAD® XL sheath, 3 mm O.D., insulated junction, 300 mm length.

Ordering Example for Transition Junction Probes: TJ1-CAXL-M60G-300, Heavy Duty Transition Junction Probe, Type K (CHROMEGLA®-ALOMEGA®), SUPER OMEGACLAD® XL sheath, 6 mm O.D., grounded junction, 300 mm length.



Super OMEGACLAD® XL Probes

Lower your maintenance costs with Off-the-Shelf long-life Thermocouple Probes



1200°C? Replace 17 of theirs in 52 days or just one of ours!

In life-cycle lab testing, the Super OMEGACLAD® XL Sheathed, 3 mm Type K Probe operated continuously for 52 days at 1205°C while competitors' 3 mm Inconel® 600 Sheathed, Type K Probes lasted 3 days.†

†Results will vary on application and operating environment.

Long Life, Low Maintenance!

If your application operates at the punishing temperature of 1200°C, 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 achieve the best performance results. Our innovative temperature sensors last over 10 times 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!



Super OMEGACLAD® XL probes are also available in a four-wire construction (two thermocouple junctions) with bare leads. These quality probes pass stringent insulation resistance (IR) checks and pressurised leak tests at 25 Bar.

NB12 industrial head in Aluminium with IP67 rating. The head includes internal terminal block, M20 cable gland, and standard ½ inch BSPT process thread. (Shown smaller than actual size.)

Ordering Example for Dual Probes, multiply price by 1.75. TJ1-CAXL-IM30U-500-DUAL, Dual Super OMEGACLAD® XL heavy-duty transition junction probe, 3 mm Dia., Insulated, 500 mm: £15.10 x 1.75 = £26.43

Industrial Head Probes

IEC Colour Code	Sheath Dia. mm	Model Number IEC Colour Code	300 mm Length		500 mm Length		Price/Add'l 500mm
			G/E	U	G/E	U	
CHROMEGA®-ALOMEGA® K	1.5	NB(†)-CAXL-IM15[*]-[**]	£34.50	£35.50	£35.70	£36.70	£1.70
	3.0	NB(†)-CAXL-IM30[*]-[**]	36.00	37.00	38.30	39.30	3.30
	4.5	NB(†)-CAXL-IM45[*]-[**]	37.00	38.00	40.50	41.50	5.00
	6.0	NB(†)-CAXL-IM60[*]-[**]	37.75	38.75	41.80	42.80	5.80
OMEGA-P®-OMEGA-N® N	1.5	NB(†)-NNXL-IM15[*]-[**]	34.50	35.50	35.70	36.70	1.70
	3.0	NB(†)-NNXL-IM30[*]-[**]	36.00	37.00	38.30	39.30	3.30
	4.5	NB(†)-NNXL-IM45[*]-[**]	37.00	38.00	40.50	41.50	5.00
	6.0	NB(†)-NNXL-IM60[*]-[**]	37.75	38.75	41.80	42.80	5.80

(†) Specify Head Style. 11 (NB11, Dimensions of C = 62 mm, H = 67 mm), 12 (NB12, Dim. of C = 82 mm, H = 87 mm)

[*] Specify junction type: G (Grounded), E (Exposed), U (Insulated).

[**] Specify Length in millimetres: 150 mm, 300 mm, or 600 mm.

Ordering Example: NB11-CAXL-IM60G-300 Industrial Head Probe, NB1 Style Head, Type K (CHROMEGA®-ALOMEGA®) SUPER OMEGACLAD® XL sheath, 6 mm O.D., grounded junction, 300 mm length. Price: £37.75.

All Industrial Head Probe Styles are available in SUPER OMEGACLAD® XL Design!



Utility Handle Probes

IEC Colour Code	Sheath Dia. mm	Model Number IEC Colour Code	Junction Types				Price/Add'l 300 mm
			300 mm Length† G/E U		600 mm Length G/E U		
CHROMEGA®- ALOMEGA® OMEGACLAD® XL Sheath	1.5	KHXL-IM15[*]-RSC-[*][*]	£19.50	£23.50	£20.50	£24.50	£1.00
	3.0	KHXL-IM30[*]-RSC-[*][*]	19.50	22.50	21.50	24.50	2.00
	4.5	KHXL-IM45[*]-RSC-[*][*]	22.00	23.50	25.00	26.50	3.00
	6.0	KHXL-IM60[*]-RSC-[*][*]	24.00	25.00	27.50	28.50	3.50
OMEGA-P®- OMEGA-N® OMEGACLAD® XL Sheath	1.5	NHXL-IM15[*]-RSC-[*][*]	19.50	23.50	20.50	24.50	1.00
	3.0	NHXL-IM30[*]-RSC-[*][*]	19.50	22.50	21.50	24.50	2.00
	4.5	NHXL-IM45[*]-RSC-[*][*]	22.00	23.50	25.00	26.50	3.00
	6.0	NHXL-IM60[*]-RSC-[*][*]	24.00	25.00	27.50	28.50	3.50

† 150 mm probes are also available at the same price of 300 mm probes.

[*] Specify junction type: G (Grounded), E (Exposed), or U (Insulated).

[**] Specify Length in millimetres: 150 mm, 300 mm, or 600 mm.

Ordering Example: KHXL-IM60G-RSC-300, Utility Handle Probe, Type K (CHROMEGA®-ALOMEGA®), SUPER OMEGACLAD® XL sheath, 6 mm O.D., grounded junction, 300 mm length, supplied with a miniature thermocouple plug.

Junction Types

Grounded



Exposed



Insulated





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• 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