

## High Temperature Inconel Overbraided Ceramic Fiber Insulated Thermocouples XCIB SERIES



- ✓ High Temperature Ceramic Insulation with Inconel Overbraid
- ✓ Flexible, Abrasion Resistant
- ✓ Withstand Temperatures up to 1090°C (2000°F)
- ✓ Unexcelled Oven and Furnace Profiling
- ✓ Five Convenient Styles for Easy Application
- ✓ J, K, E or N Thermocouple Calibrations

Unique NEWPORT® family of high temperature types J, K, E or N thermocouples are double-protected with abrasion-resistant Inconel overbraid with high temperature ceramic fiber insulation. A temperature rating of 980°C (1800°F) continuous service and 1090°C (2000°F) short-term service makes these products ideal for many high temperature measurement applications. They are unexcelled for profiling ovens and furnaces. The 20-gage solid conductor thermocouple wires are insulated with braided Nextel® ceramic. Over the ceramic fiber is a rugged overbraid of Inconel 600® –a tough, high-temperature, high nickel content alloy. Five convenient styles are available in 3 ft. and 10 ft. lengths for high temperature measurement applications.

### Specifications

**Wire Gage:** 20 gage solid—standard limits of error



**Insulation:** Nextel® ceramic fiber




**Overbraiding & Fittings:** Inconel 600®

**Temperature:** 980°C (1800°F) continuous, 1090°C (2000°F) short-term service, depending on thermocouple type.


**Termination:** Ceramic beaded leads with compensated spade lugs, OSTW 220°C (425°F) male connector, or NHXH high temperature 650°C (1200°F) ceramic male connector

### Probe Style

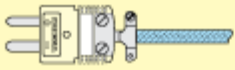
Style 1		A grounded junction thermocouple with the Inconel overbraid welded to form a smooth rounded tip for all general purpose applications.
Style 2		A general purpose, bead welded, exposed junction thermocouple.

<b>Style 3</b>		An exposed junction, bead welded junction thermocouple with an Inconel collar to clamp the probe to a surface, or to secure it into a hole or any fabrication.
<b>Style 4</b>		Grounded junction. It can be bolted to a surface, or the Inconel eye can hook the thermocouple to a conveyor flight. Ungrounded junction versions are available. Contact sales for more information.
<b>Style 5</b>		Has an Inconel air hood to protect the beaded wire exposed junction. This design can be clamped to a surface, hooked to a conveyor flight, or bolted to a surface by using the through hole at the open end of the hood.


**Termination Types**



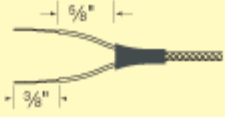
1. Ceramic beaded leads with compensated spade lugs.




2. Type OSTW male standard thermocouple connector to 220°C (425°F).  
3. Type NHXH male ceramic connector to 650°C (1200°F).



4. Nextel® insulated leads with compensated spade lugs.



5. Stripped leads.



6. SMPW mini-male connector to 220°C (425°F) max.  
7. SHX mini-male ceramic connector to 650°C (1200°F) max.

Model Number	Probe Style	Termination Type
XCIB-(*)-1-1-(**)	1	1
XCIB-(*)-1-2-(**)		2
XCIB-(*)-1-3-(**)		3
XCIB-(*)-1-4-(**)		4
XCIB-(*)-2-1-(**)	2	1
XCIB-(*)-2-2-(**)		2
XCIB-(*)-2-3-(**)		3
XCIB-(*)-2-4-(**)		4
XCIB-(*)-3-1-(**)	3	1
XCIB-(*)-3-2-(**)		2
XCIB-(*)-3-3-(**)		3
XCIB-(*)-3-4-(**)		4
XCIB-(*)-4-1-(**)	4	1
XCIB-(*)-4-2-(**)		2
XCIB-(*)-4-3-(**)		3
XCIB-(*)-4-4-(**)		4
XCIB-(*)-5-1-(**)	5	1
XCIB-(*)-5-2-(**)		2
XCIB-(*)-5-3-(**)		3
XCIB-(*)-5-4-(**)		4

\* Specify Thermocouple Type: J: Iron-Constantan, K: CHROMEGLA®-ALOMEGA®, E: CHROMEGLA®-Constantan, N: OMEGALLOY®-NICROSIL-NISIL Use prefix of "CAL-" for assemblies to be supplied with calibration data at specified temperatures. Check Sales Dept. for pricing

\*\* Specify length in feet. 3' or 10' standard

Note: Available with Silica insulation. Change "XCIB" in model number to "XSIB". No additional charge.

**Product Selection** (Specify Model Number, see variations below in partnumber builder table)

Part Number	Description	Qty.
XCIB-J-1-1-3	J Type Thermocouple, grounded welded thermocouple junction, ceramic beaded leads with spade lugs, 3' length	
XCIB-K-1-1-3	K Type Thermocouple, grounded welded thermocouple junction, ceramic beaded leads with spade lugs, 3' length	
XCIB-J-2-1-3	J Type Thermocouple, exposed thermocouple junction, ceramic beaded leads with spade lugs, 3' length	
XCIB-K-2-1-3	K Type Thermocouple, exposed thermocouple junction, ceramic beaded leads with spade lugs, 3' length	
XCIB-J-4-1-3	J Type Thermocouple, bolt-on thermocouple junction, ceramic beaded leads with spade lugs, 3' length	
XCIB-K-4-1-3	K Type Thermocouple, bolt-on thermocouple junction, ceramic beaded leads with spade lugs, 3' length	



**Part Number Builder**

(1)      (2)      (3)      (4)

XCIB- J - 1 - 1 - 3

**Option Descriptions**

**(1) Thermocouple Type**

*Select*

- J for J Type Thermocouple
- K for K Type Thermocouple
- E for E Type Thermocouple
- N for N Type Thermocouple

**(2) Probe Style**

*Select*

- 1 for Grounded Welded Junction
- 2 for Exposed Junction
- 3 for Exposed Junction with Collar
- 4 for Bolt-on Junction
- 5 for Air Hood Junction

**(3) Termination**

*Select*

- 1 for Ceramic Beaded Leads with Spade Lugs

- 2 for OST Male ConnectoR
- 3 for NHXH Ceramic Connector
- 4 for Nextel Insulated Leads with Spade Lugs
- 5 for Stripped leads
- 6 for SMPW mini-male
- 7 for SHX mini-male ceramic

**(4) Length**

*Select*

3 for 3 Feet

10 for 10 Feet

**CUSTOM** for custom length in feet(whole numbers up to 50' max. For over 50' please consult sales)

**NOTE:** All combinations may not be valid, check spec sheet for valid part numbers.