

**Color Coding:** ANSI

**Multi Strand:** 16 gauge - 7 strands of 24 gage  
20 gauge - 7 strands of 28 gage

**Accuracy:** Per ANSI MC 96.1 and ASTM E230

**To Order:** Specify the type number and calibration from the table below.

*Example:* 920-KM is fiberglass insulated and jacketed 20 gage, Chromel® Alumel® multistranded.



Type	Insulation/Jacket	Gage	Available Calibrations	Temp Rating	Construction
U716 U720	PVC/PVC PVC/PVC	16 20	JX, KX, TX, EX JX, KX, TX, EX	221°F 221°F	Each conductor is twisted and shielded with a drain wire added within the twist of lay. A 105°C flame retardant PVC jacket is then applied. This construction is UL approved as 300 volt PLTC and has passed the IEEE 383 vertical flame test.
720	PVC/PVC	20	JX, TX, KX, EX, JXM, KXM RX, SX	221°F	Conductors are laid parallel and jacketed. The thermocouple grade calibrations are available in both solid and multistrand. PVC has good moisture and abrasion resistance but becomes brittle at low temperatures, usually below minus 15°F.
820 moisture 824	FEP/FEP (Teflon®) FEP/FEP (Teflon®)	20 24	J, K, T, JM, KM J, K, T	400°F 400°F	Conductors are laid parallel and jacketed. Teflon® has excellent resistance to in temperatures down to minus 90°F. This fluoropolymer has been used in many food grade applications.
920	Fiberglass/ Fiberglass	20	J, T, K, E, JM, KM RX, SX	950°F	Conductors are laid parallel and jacketed. Fiberglass has poor resistance to moisture and only fair abrasion resistance. A saturant is applied to facilitate easy stripping and to prevent the fiberglass from flying.

Thermocouple Type		°F	
Wire Alloys	ANSI Symbol	Temp. Range -°F	Std. Limits
Iron vs. Constantan®	J	+32° to +545° +545° to +1400°	±4° ±.75%
Chromel® vs. Alumel®	K	-165° to +32° +32° to +545° +545° to +2300°	±4° ±4° ±.75%
Copper vs. Constantan®	T	-330° to -85° -85° to +270° +270° to +660°	±1.5% ±1.8° ±.75%
Chromel® vs. Constantan®	E	-330° to -270° -270° to +480° +480° to +640° +640° to +1600°	±1% ±3° ±3° ±.5%

Thermocouple Extension Wire				°F
Extension Wire Alloys	ANSI Symbol	Temp. Range	Std. Limits	
*Iron vs. Constantan®	JX	+32° to +400°	±4°	
Chromel® vs. *Alumel®	KX	+32° to +400°	±4°	
Copper vs. Constantan®	TX	-75° to +210°	±1°	
Chromel® vs. Constantan®	EX	+32° to +400°	±3°	

ANSI Color Code for Thermocouple Wire						
ANSI Symbol	Wire Alloys	Polarity	Thermocouple Wire Color		T/C Extension Wire Color	
			Individual	Jacket	Individual	Jacket
J	Iron Constantan®	+JP -JN	White Red	Brown	White Red	Black
K	Chromel® Alumel®	+KP -KN	Yellow Red	Brown	Yellow Red	Yellow
T	Copper Constantan®	+TP -TN	Blue Red	Brown	Blue Red	Blue
E	Chromel® Constantan®	+EP -EN	Purple Red	Brown	Purple Red	Purple