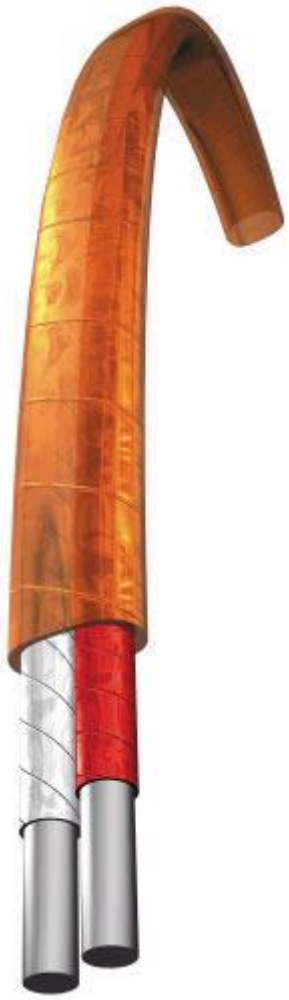
THERMOCOUPLE WIRE

Polyimide Tape Insulated 500ºF (260ºC)



APPLICATIONS

- Aerospace Industry
- Power Generation
- Laboratories
- Petrochemical Plants
- Cryogenic Applications
- Pharmaceutical
- Autoclaves

AVAILABLE OPTIONS

- Metal Overbraids
- Galvanized Half-Oval Armor
- Twisted/Shielded Pair
- Small Diameter HF/D-Overall Jacket One Insulated One Bare Conductor
- Special Color Codes
- Calibration Test Reports

PRODUCT FEATURES

- Continuous use up to 500˚F (260˚C)
- Unaffected by Extreme or Rapid Temperature Variations
- Excellent Solvent Resistance
- Flame Retardant
- Resistant to Radiation
- Does Not Burn

PRODUCT SPECIFICATIONS

CONDUCTORS:	Solid or stranded thermocouple wire per ASTM E230 & ANSI MC96.1
INSULATIONS:	Two layers of fused polyimide tape, color coded with a polyimide coating
CONSTRUCTION:	Parallel conductors
JACKET:	Two layers of fused polyimide tape
OPERATING TEMPERATURE:	-400°F (-240°C) to +500°F (+260°C) continuous
LIMITS OF ERROR:	Conforms to ASTM E230, IEC 584 and ANSI MC 96.1
COLOR CODE:	Conforms to ASTM E230 and ANSI MC 96.1 (International Color Codes Available)

ORDERING CODE

K / K (◯) – (◯) (◯) - (◯)

Optinal Metal Coverings	
S	=Stainless steel Braid
CU	=Tinned Copper Braid
I	=Inconel Braid
X	=Half-Oval Galvanized Steel

- Wire Size AWG or Metric
- Add (F) for Stranded Wire
- Calibration Grade Designation Per Table 1

Conductor Size		Insulation Thickness		Jacket Thickness		Outer Diameter		Net Weight	
AWG	(MM)	inches	(MM)	inches	(MM)	inches	(MM)	LB/MF	(KG/KM)
14	(1.63)	.005	(.13)	.005	(.13)	.086 x .160	(2.2 x 4.1)	28	(42)
16	(1.29)	.005	(.13)	.005	(.13)	.071 x .132	(1.8 x 3.4)	18	(27)
16F*	(1.47)	.005	(.13)	.005	(.13)	.080 x .150	(2.0 x 3.8)	20	(30)
18	(1.02)	.005	(.13)	.005	(.13)	.060 x .110	(1.5 x 2.8)	11	(16)
20	(0.81)	.005	(.13)	.005	(.13)	.052 x .094	(1.3 x 2.4)	7.9	(11)
20F*	(0.97)	.005	(.13)	.005	(.13)	.058 x .106	(1.5 x 2.7)	8.2	(12)
22	(0.64)	.005	(.13)	.005	(.13)	.045 x .080	(1.1 x 2.0)	5.4	(8.0)
24	(0.51)	.005	(.13)	.005	(.13)	.040 x .070	(1.0 x 1.8)	3.7	(5.5)
24F*	(0.61)	.005	(.13)	.005	(.13)	.044 x .078	(1.1 x 2.0)	4.2	(6.2)
26	(0.41)	.005	(.13)	.005	(.13)	.036 x .062	(.91 x 1.6)	2.7	(4.0)
28	(0.32)	.005	(.13)	.005	(.13)	.033 x .056	(.84 x 1.4)	2.0	(3.0)
30	(0.25)	.005	(.13)	.005	(.13)	.030 x .050	(.76 x 1.3)	1.7	(2.5)

MANY ITEMS AVAILABLE FROM STOCK WITHIN 24 HOURS

The products referenced above represent the most popular constructions. Other constructions can be manufactured to meet individual specification and application requirements. Contact factory for additional information.

Table 1

Initial Calibration Tolerances Per ASTM E230 and ANSI MC96.1

			Tolerance-Reference Junction 32°F (0°C)		
Thermocouple Type	**Temperature Range °F (°C)**	**Grade Designation**	**Standard Grade Limits °F (°C) whichever is greater**	**Grade Designation**	**Special Grade Limits °F (°C) whichever is greater**
Thermocouple Wire					
T	32 (0) to 700 (370)	T	±1.8 (1) or ±0.75%	TT	±0.9 (0.5) or 0.4%
J	32 (0) to 1400 (760)	J	±4 (2.2) or ±0.75%	JJ	±2 (1.1) or 0.4%
E	32 (0) to 1600 (870)	E	±3.1 (1.7) or ±0.50%	EE	±1.8 (1) or 0.4%
K or N	32 (0) to 2300 (1260)	K or N	±4 (2.2) or ±0.75%	KK or NN	±2 (1.1) or 0.4%
T*	-328 (-200) to 32 (0)	T	±1.8 (1) or ±1.5%	TT	±0.9 (0.5) or 0.8%**
E*	-328 (-200) to 32 (0)	E	±3.1 (1.7) or ±1%	EE	±1.8 (1) or 0.5%**
K*	-328 (-200) to 32 (0)	K	±4 (2.2) or ±2%	KK	**
Extension Wire					
TX	32 (0) to 212 (100)	TX	±1.8 (1)	TTX	±0.9 (0.5)
JX	32 (0) to 400 (200)	JX	±4 (2.2)	JJX	±2 (1.1)
EX	32 (0) to 400 (200)	EX	±3.1 (1.7)	EEX	±1.8 (1)
KX or NX	32 (0) to 400 (200)	KX or NX	±4 (2.2)	KKX or NNX	±2 (1.1)
RX or SX	32 (0) to 400 (200)	RX or SX	±9 (5)		
BX	32 (0) to 212 (100)	BX***	±7.6 (4.2)		
BX	32 (0) to 400 (200)	BX ALLOY***	±6.7 (3.7)		

* Thermocouple material is normally supplied to meet tolerances above 0°C (32°F). If material is required to meet tolerances below 0°C (32°F), the purchase order must so state. Special selection of material is required.

** Suggested initial calibration tolerance. Requirements should be discussed between purchaser and supplier.

*** Copper vs. copper can be used as an extension for Type B thermocouples if the transition is below 100°C (212°F). Above 100°C (212°F), PCLW30-6 alloy should be used as the positive extension wire.