THERMOCOUPLE WIRE

PVC Insulated 221ºF (105ºC)

APPLICATIONS:

- *Temperature Sensors*
- *Testing*
- *Laboratories*
- *Heating and Air Conditioning*
- *General Industry*

AVAILABLE OPTIONS

- *Continuous use up to 221°F (105°C)*
- *Flame Retardant*
- *Good Moisture, Chemical and Solvent Resistance*
- *Excellent Dielectric Strength*
- *Economical Construction*

PRODUCT FEATURES

- *Metal Overbraids*
- *Galvanized Half-Oval Armor*
- *Nylon Jackets*
- *Twisted/Shielded Pair*
- *Multi-Pair Cables*
- *Cotton Overbraid*
- *TPE Insulation and Jacket Rated to 250°F (125°C)*
- *Special Color Codes*

PRODUCT SPECIFICATIONS:

CONDUCTORS:	Solid or stranded thermocouple wire per ASTM E230 & ANSI MC96.1
INSULATION:	Flame retardant PVC
CONSTRUCTION:	Parallel conductors
JACKET:	Flame retardant PVC
OPERATING TEMPERATURE:	From -15°F (-26°C) to +221°F (+105°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

P / P (◯) – (◯) (◯) - (◯)

Optional 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)
12	(2.05)	.020	(.51)	.020	(.51)	.161 x .282	(4.1 x 7.2)	57	(85)
14	(1.63)	.015	(.38)	.015	(.38)	.124 x .218	(3.1 x 5.5)	34	(51)
14F*	(1.80)	.015	(.38)	.015	(.38)	.132 x .234	(3.4 x 5.9)	38	(57)
16	(1.29)	.015	(.38)	.015	(.38)	.111 x .192	(2.8 x 4.9)	24	(36)
16F*	(1.47)	.015	(.38)	.015	(.38)	.118 x .206	(3.0 x 5.2)	26	(39)
18	(1.02)	.015	(.38)	.015	(.38)	.100 x .170	(2.5 x 4.3)	17	(25)
18F*	(1.22)	.015	(.38)	.015	(.38)	.108 x .186	(2.7 x 4.7)	18	(27)
	(0.81)	.015	(.38)	.015	(.38)	.092 x .154	(2.3 x 3.9)	14	(21)
20F*	(0.97)	.015	(.38)	.015	(.38)	.096 x .162	(2.4 x 4.1)	15	(22)
22	(0.64)	.015	(.38)	.015	(.38)	.085 x .140	(2.2 x 3.6)	8.1	(13)
24	(0.51)	.015	(.38)	.015	(.38)	.080 x .130	(2.0 x 3.3)	7.1	(11)
24F*	(0.61)	.015	(.38)	.015	(.38)	.084 x .138	(2.1 x 3.5)	7.6	(12)

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 0C (32F), 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 100C (212F), PCLW30-6 alloy should be used as the positive extension wire.*