



# THERMOCOUPLE WIRE

## PVC Insulated 221°F (105°C)

### Applications

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

### Product Features

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

### Available Options

- 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

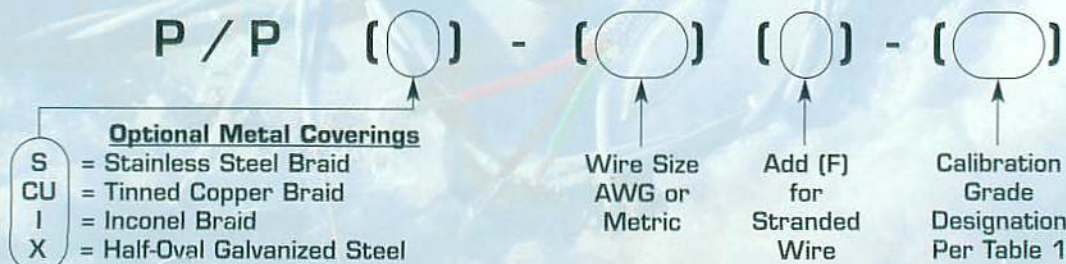
**Operating Temperature:** -15°F (-26°C) to +221°F (+105°C) continuous

**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



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

\* Denotes flexible 7-strand wire

**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

Thermocouple Type	Temperature Range °F (°C)	Grade Designation	Tolerance-Reference Junction 32°F (0°C)	
			Standard Grade Limits °F (°C) whichever is greater	Special Grade Limits °F (°C) whichever is greater
<b>Thermocouple Wire</b>				
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 **
<b>Extension Wire</b>				
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)
<b>Compensating Extension Wire</b>				
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.



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