

THERMOCOUPLE WIRE

PVC Insulated Rip Cord 221°F (105°C)

APPLICATIONS

- Temperature Sensors
- Testing
- Laboratories
- Transportation
- Heating and Air Conditioning
- Appliances
- Validation

AVAILABLE OPTIONS

- Tighter than Special Limit Accuracy Tolerances
- Special Color Codes
- Calibration Test Reports

PRODUCT FEATURES

- Continuous use up to 221°F (105°C)
- Flame Retardant
- Small Compact Size
- Individual Insulation Color Coded
- Economical Construction
- Flexible
- Rip Design for Easy Conductor Separation



PRODUCT SPECIFICATIONS

CONDUCTORS: Solid or stranded thermocouple wire per ASTM E230 & ANSI MC96.1

INSULATIONS: Flame retardant PVC

CONSTRUCTION: Parallel conductors bonded together

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

P- () () - ()

↑
Wire Size
AWG or
Metric

↑
Add (F)
for
Stranded
Wire

↑
Calibration
Grade
Designation
Per Table 1

Conductor Size		Insulation Thickness		Outer Diameter		Net Weight	
AWG	(MM)	Inches	(MM)	inches	(MM)	LB/MF	(KG/KM)
14	(1.63)	.012	(.30)	.088 x .176	(2.2 x 4.5)	29	(43)
14F*	(1.80)	.012	(.30)	.100 x .200	(2.5 x 5.1)	32	(48)
16	(1.29)	.012	(.30)	.075 x .150	(1.9 x 3.8)	19	(28)
16F*	(1.47)	.012	(.30)	.084 x .168	(2.1 x 4.2)	22	(33)
18	(1.02)	.012	(.30)	.064 x .128	(1.6 x 3.3)	12	(18)
18F*	(1.22)	.012	(.30)	.072 x .144	(1.8 x 3.7)	14	(21)
20	(0.81)	.010	(.25)	.052 x .104	(1.3 x 2.6)	7.8	(12)
20F*	(0.97)	.010	(.25)	.058 x .116	(1.5 x 2.9)	8.4	(13)
22	(0.64)	.010	(.25)	.045 x .090	(1.1 x 2.3)	5.3	(7.9)
24	(0.51)	.010	(.25)	.040 x .080	(1.0 x 2.0)	3.5	(5.2)
24F*	(0.61)	.010	(.25)	.044 x .088	(1.1 x 2.2)	3.8	(5.7)
26	(0.41)	.010	(.25)	.036 x .072	(.91 x 1.8)	2.5	(3.7)

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 32F (0C)

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