THERMOCOUPLE WIRE

Vitreous Silica Insulated 1800°F (982°C)

Applications

- Heat Treatment
- Component Testing
- Steel and Aluminum ...Industry
- Metals Production
- Furnace Surveys

Available Options

- No tracers
- Impregnated Jacket
- Stabilized Type K & ...Type E Conductors
- Metal Coverings
- Tighter Than Special Limit ...Accuracy Tolerances
- Calibration Test Reports

Product Features

- Continuous use up to ...1800F (982C)
- Single exposure up to ...2000F (1093C)
- **Light Build** Version ...of HG/HG
- Not Recommended ...for Abrasive Applications ...at High Temperatures

Product Specifications

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

Insulation: Braided vitreous silica

Construction: Parallel conductors

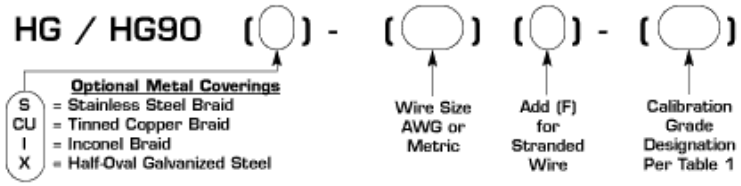
Jacket: Braided vitreous silica

Operating Temperature: +1800F (+982C) continuous
+2000F (+1093C) single exposure

Limits of Error: Conforms to ASTM E230, IEC 584 and ANSI MC 96.1

Color Code: Supplied white without saturants red tracer in negative leg

Ordering Code



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)	.016	(.41)	.017	(.43)	.130 x .226	(3.3 x 5.7)	33	(49)
16	(1.29)	.016	(.41)	.017	(.43)	.117 x .200	(3.0 x 5.1)	24	(36)
16F*	(1.47)	.016	(.41)	.017	(.43)	.124 x .214	(3.1 x 5.4)	26	(39)
18	(1.02)	.016	(.41)	.017	(.43)	.106 x .178	(2.7 x 4.5)	18	(27)
18F*	(1.22)	.016	(.41)	.017	(.43)	.114 x .194	(2.9 x 4.9)	19	(28)
20	(0.81)	.016	(.41)	.017	(.43)	.098 x .162	(2.5 x 4.1)	14	(21)
20F*	(0.97)	.016	(.41)	.017	(.43)	.102 x .170	(2.6 x 4.3)	15	(22)
22	(0.64)	.016	(.41)	.017	(.43)	.091 x .148	(2.3 x 3.8)	12	(18)
22F*	(0.76)	.016	(.41)	.017	(.43)	.096 x .158	(2.4 x 4.0)	13	(19)

24	(0.51)	.016	(.41)	.017	(.43)	.086 x .138	(2.2 x 3.5)	9.3	(14)
24F*	(0.61)	.016	(.41)	.017	(.43)	.090 x .146	(2.3 x 3.7)	9.7	(15)

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

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