



CALIBRATION: ANSI Type J

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-G/G-24F-J	W-G/G-24F-JJ	24 STRANDED	0.848
W-G/G-24-J	W-G/G-24-JJ	24 SOLID	0.928
W-G/G-20F-J	W-G/G-20F-JJ	20 STRANDED	0.335
W-G/G-20-J	W-G/G-20-JJ	20 SOLID	0.367
W-G/G-18-J	W-G/G-18-JJ	18 SOLID	0.234

CALIBRATION: ANSI Type K

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-G/G-24F-K	W-G/G-24F-KK	24 STRANDED	1.361
W-G/G-24-K	W-G/G-24-KK	24 SOLID	1.490
W-G/G-20F-K	W-G/G-20F-KK	20 STRANDED	0.538
W-G/G-20-K	W-G/G-20-KK	20 SOLID	0.589
W-G/G-18-K	W-G/G-18-KK	18 SOLID	0.376

CALIBRATION: ANSI Type T

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-G/G-24F-T	W-G/G-24F-TT	24 STRANDED	0.701
W-G/G-24-T	W-G/G-24-TT	24 SOLID	0.768
W-G/G-20F-T	W-G/G-20F-TT	20 STRANDED	0.277
W-G/G-20-T	W-G/G-20-TT	20 SOLID	0.304
W-G/G-18-T	W-G/G-18-TT	18 SOLID	0.194

CALIBRATION: ANSI Type E

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-G/G-24F-E	W-G/G-24F-EE	24 STRANDED	1.639
W-G/G-24-E	W-G/G-24-EE	24 SOLID	1.795
W-G/G-20F-E	W-G/G-20F-EE	20 STRANDED	0.648
W-G/G-20-E	W-G/G-20-EE	20 SOLID	0.709
W-G/G-18-E	W-G/G-18-EE	18 SOLID	0.453

CALIBRATION: ANSI Type N

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-G/G-24F-N	W-G/G-24F-NN	24 STRANDED	1.808
W-G/G-24-N	W-G/G-24-NN	24 SOLID	1.980
W-G/G-20F-N	W-G/G-20F-NN	20 STRANDED	0.715
W-G/G-20-N	W-G/G-20-NN	20 SOLID	0.783
W-G/G-18-N	W-G/G-18-NN	18 SOLID	0.500

CALIBRATION: ANSI Type SX/RX

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-G/G-24F-SX		24 STRANDED	0.091
W-G/G-24-SX		24 SOLID	0.100
W-G/G-20F-SX		20 STRANDED	0.036
W-G/G-20-SX		20 SOLID	0.040
W-G/G-18-SX		18 SOLID	0.025

CALIBRATION: ANSI Type BX

ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
STANDARD	SPECIAL (1)		
W-G/G-24F-BX		24 STRANDED	0.227
W-G/G-24-BX		24 SOLID	0.248
W-G/G-20F-BX		20 STRANDED	0.090
W-G/G-20-BX		20 SOLID	0.098
W-G/G-18-BX		18 SOLID	0.063

CONDUCTOR SIZE (AWG)	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL DIMENSIONS	APPROX. SHIPPING WT. lbs/1000 Ft. (Kg)
24 STRANDED	.005	.006	.040/.076	8 lbs (3.6 Kg)
24 SOLID	.005	.006	.044/.084	7 lbs (3.2 Kg)
20 STRANDED	.005	.006	.052/.100	10 lbs (4.5 Kg)
20 SOLID	.005	.006	.058/.112	9 lbs (4.1 Kg)
18 SOLID	.007	.008	.068/.128	17 lbs (7.7 Kg)

FIBERGLASS INSULATED TYPE W-G/G (THERMOCOUPLE GRADE)

FIBERGLASS INSULATION

Individual conductors are insulated with a fiberglass braid which is saturated with a resin to improve abrasion resistance and reduce fraying. Conductors are laid parallel and covered with an overall fiberglass jacket and a final impregnation of resin.

PERFORMANCE FEATURES

Designed for continuous use to 950° F (510° C), intermittent to 1200° F (650° C).
Good moisture, chemical and abrasion resistance, high temperature stability

APPLICATIONS

Heat Treating
Aircraft Bonding
Foundries and Steel Mills
Ovens

CALIBRATION	COLOR CODE (ANSI)			COLOR CODE (IEC)*		
	POSITIVE	NEGATIVE	OVERALL	POSITIVE	NEGATIVE	OVERALL
TYPE J	WHITE	RED	BROWN	BLACK	WHITE	BLACK
TYPE K	YELLOW	RED	BROWN	GREEN	WHITE	GREEN
TYPE T	BLUE	RED	BROWN	BROWN	WHITE	BROWN
TYPE E	PURPLE	RED	BROWN	PURPLE	WHITE	PURPLE
TYPE N	ORANGE	RED	BROWN	PINK	WHITE	PINK
TYPE SX/RX	BLACK	RED	GREEN	ORANGE	WHITE	ORANGE
BX	GRAY	RED	GRAY	RED	GRAY	GRAY

* Add (-IEC) to the end of the ordering code for IEC color coded insulation and jacketed wire.
Example: W-G/G-20-J-IEC

INITIAL CALIBRATION TOLERANCES Per ANSI MC96.1 and ASTM E230 (°F)				
TEMPERATURE RANGE	STANDARD		SPECIAL	
	CALIBRATION	TOLERANCE	CALIBRATION	TOLERANCE
32 to 1400°F	TYPE J	±4.0°F or ±.75%*	TYPE JJ	±2.0°F or ±.4%*
32 to 2300°F	TYPE K	±4.0°F or ±.75%*	TYPE KK	±2.0°F or ±.4%*
-320 to 32°F	TYPE T**	±1.8°F or ±1.5%**	TYPE TT**	±0.9°F or ±.8%**
32 to 700°F		±1.8°F or ±.75%*		±0.9°F or ±.4%*
32 to 1600°F	TYPE E	±3.0°F or ±.50%*	TYPE EE	±1.8°F or ±.5%*
32 to 2300°F	TYPE N	±4.0°F or ±.75%*	TYPE NN	±2.0°F or ±.4%*
32 to 400°F	TYPE SX, RX***	±9.0°F		
32 to 212°F	TYPE BX***	±6.7°F		

*Whichever is greater
**Values refer to specially selected cryogenic material. Special limits tolerance is based on limited data, and should only be used as a guide in establishing appropriate working tolerances.
*** Type S and R thermocouples utilize the same extension wire.
**** Copper versus copper can be used as extension wire for type B thermocouples if transition temperature is at or below 212°F for a maximum error of 6.7°F. Above 212°F, PCLW30-6 alloy (or equivalent) should be used as the positive extension wire with copper as the negative extension wire. (Note: PCLW30-6 or equivalent can also be used in the 122°F to 212°F temperature range, which will reduce the error to -0/+4°F.)

Notes:

- (1) Meets or exceeds Special Initial Calibration Tolerances per ANSI MC96.1-1982 and ASTM E230-1993.
- (2) Nominal resistance in OHMS per double feet at 68°F (20°C).



SECTION WIRE
FIBERGLASS INSULATED WIRE

The information contained herein shall be considered the sole property of Thermo Electric Corporation. The recipient thereof agree not to disclose or reproduce said information to parties outside the recipients organization without the written permission of Thermo Electric Corporation.

Doc. No.: TE-CO010109-WIRE-080