



**TFE TEFLON® INSULATED  
TYPE W-TF/TF (THERMOCOUPLE GRADE)**

**CALIBRATION: ANSI Type J**

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

**CALIBRATION: ANSI Type K**

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

**CALIBRATION: ANSI Type T**

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

**CALIBRATION: ANSI Type E**

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

**CALIBRATION: ANSI Type N**

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

**CALIBRATION: ANSI Type SX/RX**

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

**CALIBRATION: ANSI Type BX**

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

**TEFLON® (TFE) or Equivalent INSULATION**

Heat fused Teflon tape is spiral wrapped over Individual conductors forming a homogeneous layer of insulation. Conductors are laid parallel and jacketed using the same process. This construction provides all the advantages of extruded Teflon with a higher temperature rating.

**PERFORMANCE FEATURES**

- Excellent low friction resistance, allows easy pulling through conduits
- High flexibility
- Unaffected by most chemicals
- Excellent Electrical Properties

**APPLICATIONS**

- Petrochemical Plants
- Harsh and Corrosive Environments
- Food and Pharmaceutical

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-TF/TF-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.)

CONDUCTOR SIZE (AWG)	INSULATION THICKNESS	JACKET THICKNESS	NOMINAL DIMENSIONS	APPROX. SHIPPING WT. lbs/1000 Ft. (Kg)
24 STRANDED	.010	.012	.064/.120	7 lbs (3.2 Kg)
24 SOLID	.010	.012	.060/.112	6 lbs (2.7 Kg)
20 STRANDED	.010	.012	.078/.148	11 lbs (5.0 Kg)
20 SOLID	.010	.012	.072/.136	9 lbs (4.1 Kg)
18 SOLID	.010	.012	.080/.152	15 lbs (6.8 Kg)

**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**  
**TFE TEFLON® INSULATED WIRE**

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Doc. No.: TE-CO010109-WIRE-050