

PVC INSULATED SHIELDED  
TYPE W-P/ALPTWK (THERMOCOUPLE EXTENSION GRADE CABLE)

PVC INSULATION MULTI-PAIR THERMOCOUPLE CABLE

Individual conductors are insulated with a flexible polyvinyl chloride. Conductors are twisted in pairs and numbered, a communications wire is added and pairs are cabled and a polyester backed aluminum tape shield applied with a bare stranded copper drain wire. A polyvinyl chloride jacket is extruded over the shielded pair which includes a ripcord for easy jacket removal.

CABLE SPECIFICATIONS

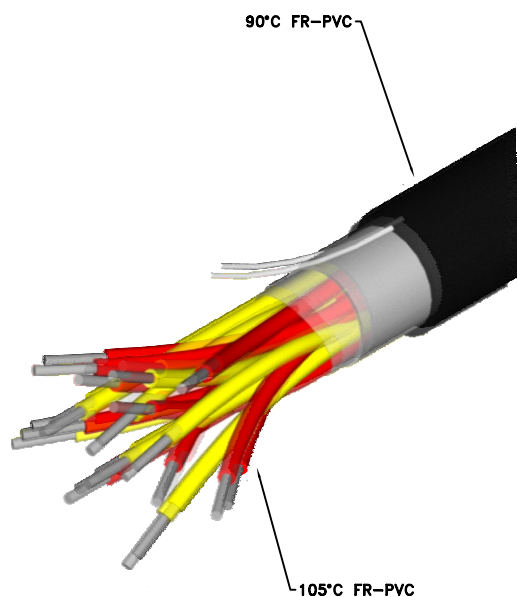
Conductors: 20 Gauge Solid  
Singles Insulation: .016" nominal, 105°C PVC  
Construction: Twisted Pairs  
Pair Identification: One Conductor of Each Pair Numbered  
Lay of Twist: 2 to 3"  
Shield: Polyester Backed Aluminum Tape, 100% Coverage  
Drain Wire: Stranded Uninsulated Tinned Copper  
Communication Wire: Insulated (Orange) Stranded Copper  
Jacket: 90°C PVC

ORDERING CODE	NUMBER OF PAIRS	NOM. OUTER JACKET THK.	NOM. OUTER JACKET DIAM.	MIN. BEND RADIUS	TENSION LOADING	NET WEIGHT LBS./1000 FT.
P/ALPTWK-04-20-XX	4	.042	.368	2.25	74	77
P/ALPTWK-06-20-XX	6	.053	.442	2.75	107	105
P/ALPTWK-08-20-XX	8	.053	.480	3.00	140	136
P/ALPTWK-10-20-XX	10	.053	.538	3.25	172	156
P/ALPTWK-12-20-XX	12	.053	.557	3.25	205	177
P/ALPTWK-16-20-XX	16	.064	.643	3.75	270	235
P/ALPTWK-20-20-XX	20	.064	.669	4.00	336	277
P/ALPTWK-24-20-XX	24	.064	.752	4.50	401	326

TO COMPLETE ORDERING CODE REPLACE "XX" WITH CALIBRATION

CALIBRATION SYMBOL	ORDERING CODE		CONDUCTOR SIZE (AWG)	NOMINAL LOOP RESISTANCE (2)
	STANDARD	SPECIAL (1)		
JX or JJX	W-P/ALPTW-XX-20-JX	W-P/ALPTW-XX-20-JJX	20 SOLID	0.367
KX or KXX	W-P/ALPTW-XX-20-KX	W-P/ALPTW-XX-20-KXX	20 SOLID	0.589
TX or TTX	W-P/ALPTW-XX-20-TX	W-P/ALPTW-XX-20-TTX	20 SOLID	0.304
EX or EEX	W-P/ALPTW-XX-20-EX	W-P/ALPTW-XX-20-EEX	20 SOLID	0.709
NX or NNX	W-P/ALPTW-XX-20-NX	W-P/ALPTW-XX-20-NNX	20 SOLID	0.783
SX/RX	W-P/ALPTW-XX-20-SX/RX		20 SOLID	0.040
BX	W-P/ALPTW-XX-20-BX		20 SOLID	0.098

"XX" IS REPLACED WITH THE NUMBER OF PAIRS



CALIBRATION	COLOR CODE (ANSI)			COLOR CODE (IEC)*		
	POSITIVE	NEGATIVE	OVERALL	POSITIVE	NEGATIVE	OVERALL
TYPE JX	WHITE	RED	BLACK	BLACK	WHITE	BLACK
TYPE KX	YELLOW	RED	YELLOW	GREEN	WHITE	GREEN
TYPE TX	BLUE	RED	BLUE	BROWN	WHITE	BROWN
TYPE EX	PURPLE	RED	PURPLE	PURPLE	WHITE	PURPLE
TYPE NX	ORANGE	RED	ORANGE	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-P/ALPTWK-12-20-JX-IEC

TEMPERATURE RANGE	INITIAL CALIBRATION TOLERANCES Per ANSI MC96.1 and ASTM E230 (°F)			
	STANDARD		SPECIAL	
	CALIBRATION	TOLERANCE	CALIBRATION	TOLERANCE
32 to 400°F	TYPE JX	±4.0°F	TYPE JJX	±2.0°F
32 to 400°F	TYPE KX	±4.0°F	TYPE KXX	±2.0°F
32 to 212°F	TYPE TX	±1.8°F	TYPE TTX	±0.9°F
32 to 400°F	TYPE EX	±3.0°F	TYPE EEX	±1.8°F
32 to 400°F	TYPE NX	±4.0°F	TYPE NNX	±2.0°F
32 to 400°F	TYPE SX, RX*	±9.0°F		
32 to 212°F	TYPE BX**	±6.7°F		

\* 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  
PVC INSULATED  
MULTI-PAIR THERMOCOUPLE CABLE

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