

PVC INSULATED THERMOCOUPLE WIRE:



PVC is most popular & economical Insulation for THERMOCOUPLE WIRES with a withstanding capacity up to 90 °C.

APPALICATIONS	PRODUCT FEATURES
<ul style="list-style-type: none"> • Plastic & General Machinery • Heating and Air Conditioning • Plastic Processing Equipments • Laboratories • Thermocouple Circuits • General Industry • Appliances 	<ul style="list-style-type: none"> • Continuous use up to 90°C • Good moisture, chemical & solvent resistance • Good Thermal Durability & Strength • Flame Retardant • Superior Abrasion Resistance • Better flexibility • Most economical & popular insulation

PRODUCT SPECIFICATIONS:

Conductor	Solid or stranded thermocouple extension wires from 12 AWG to 22 AWG (2.44mm to 0.63mm)
Core Insulation	Flame Retardant PVC
Construction	Parallel Conductors
No. of Pair	1
Inner Sheath	Flame Retardant PVC
Armored (Optional)	WIRE ARMORED or SS METAL OVERBRAID
Outer sheath	Flame Retardant PVC
Color Coding	Confirms to ANSI MC 96.1 (International Color Code Available)

- Other sizes in SWG and also different construction in other stranded sizes are available on request
- Optional construction of twisted conductors & shielding
- Duplex construction are also available
- Optional Color coding: IEC 60584 – 3, BS 1843, DIN 13711, JIS C 1610 – 1981, NFC 42334 as per requirement

TYPE OF TC	Metal Alloy + ve leg	Metal Alloy – ve leg	Thermal Tolerance
J	Fe	Cu Ni	ASTM E 230 – ANSI MC 96.1 & IEC EN 60584 - 2
K	Ni Cr	Ni Al	ASTM E 230 – ANSI MC 96.1 & IEC EN 60584-2
T	Cu	Cu Ni	ASTM E 230 – ANSI MC 96.1 & IEC EN 60584- 2
E	Ni Cr	Cu Ni	ASTM E 230 – ANSI MC 96.1 & IEC EN 60584 - 2
N	Ni Cr Si	Ni Si	ASTM E 230 – ANSI MC 96.1 & IEC EN 60584 - 2

- Thermocouple wires are normally supplied to meet tolerance above 0 °C. If material is reqd. to meet tolerance below 0 °C, the purchaser should clarify the same in Purchase Order. Special selection of material is reqd.
- Initial calibration & Tolerance suggested, its requirement should be discussed well in advance before placing the order.
- R & S extension wires are also manufactured with copper as positive and different nickel alloys respective for R & S.
- B Type extension wire is manufactured with Copper as positive & negative for transition below 100 °C



ELTEC CABLES & INSTRUMENTS

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EMPOWERING PROCESS MANAGEMENT



TYPE OF CABLE	Wire Size AWG	Type of Wire	Type K	Type J	Type T	Type N	Type E
EXTRUDED PVC INSULATED & SHEATHED	7 * 32	Stranded	Kt-7*32 PPA	Jt-7*32PPA	Tt-7*32PPA	Nt-7*32PPA	Et-7*32PPA
	24	Solid	Kt-24 PPA	Jt-24PPA	Tt-24PPA		
	22	Solid	Kt-22 PPA	Jt-22PPA			
	20	Solid	Kt-20 PPA	Jt-20PPA			
	18	Solid	Kt-18 PPA	Jt-18PPA			
	16	Solid	Kt-16 PPA	Jt-16PPA			
	14	Solid	Kt-14 PPA	Jt-14PPA			
	12	Solid	Kt-12 PPA	Jt-12PPA			
EXTRUDED PVC INSULATED & SHEATHED WITH ARMORING	7 * 32	Stranded	Kt-7*32 PPA	Jt-7*32PPA	Tt-7*32PPA	Nt-7*32PPA	Et-7*32PPA
	24	Solid	Kt-24 PPA	Jt-24PPA	Tt-24PPA		
	22	Solid	Kt-22 PPA	Jt-22PPA			
	20	Solid	Kt-20 PPA	Jt-20PPA			
	18	Solid	Kt-18 PPA	Jt-18PPA			
	16	Solid	Kt-16 PPA	Jt-16PPA			
	14	Solid	Kt-14 PPA	Jt-14PPA			
	12	Solid	Kt-12 PPA	Jt-12PPA			

- PP – INSULATION & JACKET OF PVC
- PPA – INSULATION & JACKET OF PVC with Wire Armored
- Duplex construction are suffix with D i.e. KtD ____
- Extension & Compensating Grade Wire are suffix with e & c respectively

Initial Calibration Tolerances as per ASTM E230 and ANSI MC96.1

Tolerance-Reference Junction 0°C (32 °F)

Thermocouple Designation	Temperature Range °C (°F)	Standard Grade Limits °C (°F) whichever is greater	Special Grade Limits °C (°F) Whichever is greater
Thermocouple Grade Wires			
Jt	0 (32) to 750 (1382)	±2.2 (4.0) or ±0.75%	±1.1 (2.0) or 0.4%
Kt	0 (32) to 1250 (2282) -200 (-328) to 0 (32)	±2.2 (4.0) or ±0.75% ±2.2 (4.0) or ±2%	±1.1 (2.0) or 0.4% -----
Tt	0 (32) to 350 (662) -200 (-328) to 0 (32)	±1.0 (1.8) or ±0.75% ±1.0 (1.8) or ±1.5%	±0.5 (1.0) or 0.4% -----
Et	0 (32) to 900 (1652) -200 (-328) to 0 (32)	±1.7 (3.0) or ±0.5% ±1.7 (3.0) or ±1%	±1.0 (1.8) or 0.4% -----
Nt	0 (32) to 1300 (2372) -270(-454) to 0 (32)	±2.2 (4.0) or ±0.75% ±2.2 (4.0) or ±2%	±1.1 (2.0) or 0.4% -----
Extension / Compensating Grade Wires			
Jx	0 (32) to 200 (400)	±2.2 (4.0)	
Kx or Kc	0 (32) to 200 (400)	±2.2 (4.0)	
Tx	32 (0) to 100 (212)	±1.0 (1.8)	
Ex	0 (32) to 200 (400)	±1.7 (3.1)	
Nx or Nc	0 (32) to 200 (400)	±2.2 (4.0)	
Rc or Sc or Bc	0 (32) to 200 (400)	±5.0 (9.0)	



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