

ANSI/ASTM CODE	Alloy Combinations		Color Coding		Max Temperature Range	Temp	Limits of Error (Whichever is Greater)	
	+Lead	- Lead	Thermocouple wire	Extension wire			Standard Limits	Special Limits
K	Chromel-Nickel-Chromium	Alumel-Nickel-Aluminum	Brown	Yellow	-270 to 1372°C -454 to 2501°F	-200 to -100°C -110 to 0°C 0 to 275°C 275 to 293°C 293 to 1260°C	±2% ±2.22°C ±2.22°C ±2.22°C ±0.75%	± - ± - ±1.1°C ±0.4% ±0.4%
N	Nicrosil-Ni-Cr-Si	Nisil-Ni-Si-Mg	Brown	Orange	-270 to 1300°C -454 to 2372°F	0 to 275°C 275 to 293°C 293 to 1250°C	±2.2°C ±2.2°C ±0.75%	±1.98°C ±0.4% ±0.4%
J	Iron	Constantan-Copper-Nickel	Brown	Black	-210 to 1200°C -346 to 2193°F	0 to 275°C 275 to 393°C 293 to 760°C	±2.2°C ±2.2°C ±0.75%	±1.98°C ±0.4% ±0.4%
T	Copper	Constantan-Copper-Nickel	Brown	Blue	-250 to 400°C -454 to 752°F	-200 to -67°C -67 to -62°C -62 to 125°C 125 to 133°C 133 to 370°C	±1.5% ±1 ±1 ±2 ±0.75%	±0.8% ±0.8% ±0.5% ±0.4% ±0.4%
E	Chromel-Nickel-Chromium	Constantan-Copper-Nickel	Brown	Purple	-270 to 1000°C -454 to 1832°F	-200 to -170°C -170 to 250°C 250 to 340°C 340 to 870°C	±1% ±1.7°C ±1.7°C ±0.5%	±1°C ±1°C ±0.4% ±0.4%
R	Platinum-13% Rhodium	Platinum	NA	Green	-0 to 1480°C 32 to 2700°F	0 to 1260°C 1260 to 1480°C	±1.5°C ±0.25%	±0.6% ±0.1%
S	Platinum-10% Rhodium	Platinum	NA	Green	-0 to 1480°C 32 to 2700°F	0 to 1260°C 1260 to 1480°C	±1.5°C ±0.25%	±0.6% ±0.1%
B	Platinum-30% Rhodium	Platinum-6% Rhodium	NA	Green	870 to 1700°C 1600 to 3100°F	870 to 1700°C	±0.5%	±0.25%
C	Tungsten-5% Rhenium	Tungsten-26% Rhenium	NA	Red	0°C to 2315°C 32°F to 4200°F	0°C to 426°C 426°C to 2315°C	±4.4°C ±1.1%	- -
SVS	SVS/411			Blue	-200 °C to 400°C -328°F to 752°F	-200 °C to 400°C	±1.1°C or 0.4% for life of sensor	±1.1°C or 0.4% for life of sensor
	SVS/2311			Orange	-0 °C to 1260°C 32°F to 2300°F	-0 °C to 1260°C	±1.1°C or 0.4% for life of sensor	±1.1°C or 0.4% for life of sensor
	SVS/3212			Red	-0 °C to 1750°C -0 °C to 1750°C	-0 °C to 1750°C	±1.1°C or 0.4% for life of sensor	±1.1°C or 0.4% for life of sensor