

Thermocouple characteristics

TYPE	Material 1 (+)	Material 2 (-)	Approx. temperature range °C	Miniature Connector Colour	Comments	Feedthroughs available	Kapton T/C wires
K	Chromel (Nickel Chromium)	Alumel (Nickel Aluminium)	-200 to 1200	Yellow/ green	Most common T/C type, Alumel is magnetic	Yes	Yes
N	Nicrosil (Nickel Chromium Silicon)	Nisil (Nickel Silicon)	-250 to 1300	Pink/ orange	Very stable at high temperature, good oxidation resistance	Yes	Yes
C	Tungsten 5% Rhenium	Tungsten 26% Rhenium	0 to 2320	Red	High temperature, non IEC standard, extension grade	Yes	Bare wire only
R	Platinum 13% Rhodium	Platinum	0 to 1600		Used for high temperature applications, f/t uses extension grade material	Yes	Bare wire only
S	Platinum 10% Rhodium	Platinum	0 to 1600		Similar to type R, uses same feedthrough	Uses type R	Bare wire only
T	Copper	Constantan (Copper Nickel)	-200 to 350	Blue	Suitable for cryogenic use	On request	On request
J	Iron	Constantan	0 to 700	Black	old Style	On request	Yes