

Table 4. Limits of Error for Thermocouple Wire

Thermoelements*	Temperature Range, °F	Limits of Error ³	
		Standard	Special
Type J	32 to 530	± 4F	± 2F
	530 to 1400	± ¾ %	± ⅜ %
Type K	32 to 530	± 4F	± 2F
	530 to 2300	± ¾ %	± ⅜ %
	-300 to -75		± 1%
	-150 to -75	± 2%	± 1%
Type T	-75 to +200	± 1½ %	± ¾ %
	200 to 700	± ¾ %	± ⅜ %
Type E	32 to 600	± 3F	± 2¼ F
	600 to 1600	± ½ %	± ⅜ %
Type R or S	32 to 1000	± 5F	± 2½ F
	1000 to 2700	± ½ %	± ¼ %
Type B	1600 to 3100	± ½ %	

* These symbols, which are in common use throughout industry, identify the following thermocouple calibrations:

- Type J. Iron versus constantan (modified 1913 calibration).
- Type K. Originally Chromel-P versus Alumel².
- Type T. Copper versus constantan.
- Type E. Originally Chromel-P2 versus constantan.
- Type R. Platinum 13% rhodium versus platinum.
- Type S. Platinum 10% rhodium versus platinum.
- Type B. Platinum 30% rhodium versus platinum.

² Chromel and Alumel are registered trademarks of Hoskins Manufacturing Co. It should be noted that alloys other than Chromel and Alumel are now available which will develop the temperature-emf relationships of the Type K and E calibrations.

³ When emf values are converted to temperature units using National Institutes of Standards and Technology (NIST) monograph 175.