



Technical Information

ACCUTHERM™ High Accuracy Thermocouple Wire

Business and industry are spending considerable time and money improving the efficiency of their manufacturing processes. Reducing scrap, increasing through-put, and improving product quality are today's benchmarks for success. Temperature is the most frequently measured process variable. To be competitive, industry needs to control and monitor process temperatures

to the highest degree of accuracy. In response to this need, TE Wire & Cable has developed ACCUTHERM™, a super accurate thermocouple wire which surpasses the performance of ASTM/ANSI special limits initial accuracy tolerance.

The accuracy of thermocouple wire is expressed as deviation from the published NIST voltage versus temperature relationship

for each type of wire. This chart shows the accuracy advantage of ACCUTHERM™ thermocouple wire over the initial calibration

tolerances for standard limits and special limits.

Initial Calibration Tolerances per ASTM E230 and ANSI MC96.1

Thermocouple Type	Standard Limits Tolerance*	Special Limits Tolerance*	ACCUTHERM™ Tolerance* **
T	±1.8F (1C) or ±0.75%	±0.9F (0.5C) or ±0.4%	±0.5F (0.3C) or ±0.2%
J	±4F (2.2C) or ±0.75%	±2F (1.1C) or ±0.4%	±1F (0.5C) or ±0.2%
E	±3.1F (1.7C) or ±0.5%	±1.8F (1C) or ±0.4%	±0.9F (0.5C) or ±0.2%
K	±4F (2.2C) or ±0.75%	±2F (1.1C) or ±0.4%	±1F (0.5C) or ±0.2%
N	±4F (2.2C) or ±0.75%	±2F (1.1C) or ±0.4%	±1F (0.5C) or ±0.2%

* whichever is greater

** at customer selected temperature points

The initial calibration tolerance for ACCUTHERM™ is approximately four times that of standard limits thermocouple wire and double that of special limits thermocouple wire. It is available with any of TE Wire & Cable's standard insulations.

Whether your process is Heat Treating or Autoclave Validation; Performance Testing or Research and Development; Aerospace

or Metals, ACCUTHERM™ will give you the temperature accuracy readings you need to remain competitive. When high accuracy temperature measurements are critical to your process, ACCUTHERM™ is the answer.



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