

# Tolerance of Thermocouples

ANSI/ASTM	°C			°F		
	Temperature Range	Standard	Special	Temperature Range	Standard	Special
<b>T</b>	-200° to -67°	± 1.5% T	± 0.8% T*	-328° to -88°	± 1.5% (T - 32)	± 0.8% (T - 32)*
	-67° to -62°	± 1°	± 0.8% T*	- 88° to -80°	± 1.8°	± 0.8% (T - 32)*
	-62° to 125°	± 1°	± 0.5°	- 80° to 257°	± 1.8°	± 0.9° *
	125° to 133°	± 1°	± 0.4% T	257° to 272°	± 1.8°	± 0.4% (T - 32)
	133° to 370°	± 0.75% T	± 0.4% T	272° to 700°	± 0.75% (T - 32)	± 0.4% (T - 32)
<b>J</b>	0° to 275°	± 2.2°	± 1.1°	32° to 527°	± 3.96°	± 1.98°
	275° to 293°	± 2.2°	± 0.4% T	527° to 560°	± 3.96°	± 0.4% (T - 32)
	293° to 760°	± 0.75% T	± 0.4% T	560° to 1400°	± 0.75% (T - 32)	± 0.4% (T - 32)
<b>E</b>	-200° to -170°	± 1% T	± 1*	-328° to -274°	± 1% (T - 32)	± 1.8*
	-170° to 250°	± 1.7°	± 1*	-274° to 482°	± 3.06°	± 1.8*
	250° to 340°	± 1.7°	± 0.4% T	482° to 644°	± 3.06°	± 0.4% (T - 32)
	340° to 870°	± 0.5% T	± 0.4% T	644° to 1600°	± 0.5% (T - 32)	± 0.4% (T - 32)
<b>K</b>	-200° to -110°	± 2%T	—	-328° to -166°	± 2% (T - 32)	—
	-100° to 0°	± 2.2°	—	166° to 32°	± 3.96°	—
	0° to 275°	± 2.2°	± 1.1°	32° to 527°	± 3.96°	± 1.98°
	275° to 293°	± 2.2°	± 0.4% T	527° to 560°	± 3.96°	± 0.4% (T - 32)
	293° to 1260°	± 0.75% T	± 0.4% T	560° to 2300°	± 0.75% (T - 32)	± 0.4% (T - 32)
<b>N</b>	0° to 275°	± 2.2°	± 1.1°	32° to 527°	± 3.96°	± 1.98°
	275° to 293°	± 2.2°	± 0.4% T	527° to 560°	± 3.96°	± 0.4% (T - 32)
	293° to 1250°	± 0.75% T	± 0.4% T	560° to 2300°	± 0.75% (T - 32)	± 0.4% (T - 32)
<b>R or S</b>	0° to 600°	± 1.5°	± 0.6°	32° to 1112°	± 2.7°	± 1.08°
	600° to 1480°	± 0.25% T	± 0.1% T	1112° to 2700°	± 0.25% (T - 32)	± 0.1% (T - 32)
<b>B</b>	870° to 1700°	± 0.5% T	± 0.25%	1600° to 3100°	± 0.5% (T - 32)	± 0.25% (T - 32)
<b>C</b>	0° to 426°	± 4.4°	—	32° to 800°	± 8°	—
	426° to 2315°	± 1% T	—	800° to 4200°	± 1% (T - 32)	—
<b>W3** (D)</b>	0° to 426°	± 4.4°	—	32° to 800°	± 8°	—
	426° to 2315°	± 1% T	—	800° to 4200°	± 1% (T - 32)	—

\*Special tolerances below 0°C (32°F) are unofficial and are provided as a basis of discussion between Conax and our customers.  
 \*\*Conax designated, not ANSI/ASTM.



2300 Walden Avenue  
 Buffalo, New York 14225, USA  
 Fax: 716-684-7433 • Phone: 716-684-4500  
 Toll free in the USA at 1-800-223-2389  
 E-mail: sales@ConaxTechnologies.com  
 Website: www.ConaxTechnologies.com