

Table 1

**Sheath Diameter**

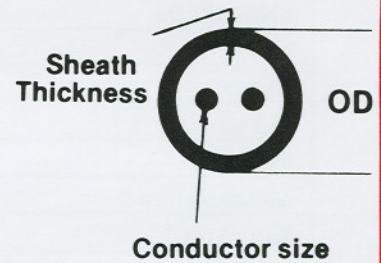
Sheath Diameter	Thermocouple Element	Sheath Material	Measuring Junction	Immersion Range	Mounting Fitting	Cold-end Termination
Table #1	Table #2	Table #3	Table #4	Table #5	Table #6	Table #7

For dual element construction insert a 2 before diameter code example: 2 - .250

Ordering Code	Diameter Inches	Conductor Size (Awg.)	Sheath Thickness (Inches)	Maximum Continuous Length (Feet)
.375	3/8	13	.053	65
.313	5/16	15	.044	100
.250	1/4	16	.035	140
.188	3/16	19	.026	260
.125	1/8	22	.018	500
.062	1/16	28	.009	1000
.040	1/25	32	.006	1000

Suggested Upper Temperature Limits for FORMPAK Thermocouples.

Calibration	1/25"	1/16"	1/8"	3/16"	1/4"	5/16"	3/8"
J	900°F	1000°F	1000°F	1200°F	1200°F	1200°F	1200°F
T	300°F	400°F	400°F	700°F	700°F	700°F	700°F
K	1400°F	1800°F	1800°F	2000°F	2000°F	2000°F	2100°F
E	800°F	1000°F	1000°F	1000°F	1100°F	1200°F	1300°F

**Thermocouple Element Calibration** Table 2

Sheath Diameter	Thermocouple Element	Sheath Material	Measuring Junction	Immersion Range	Mounting Fitting	Cold-end Termination
Table #1	Table #2	Table #3	Table #4	Table #5	Table #6	Table #7

**Limits of Error for Thermocouple Wire**

Reference Junction 32°F (0°C)

Wire Alloys	Cal. Type	Temperature Range		Tolerance (whichever is greater)	
		°F	°C	Standard	Special
<b>ANSI Thermocouple Type</b>					
* Iron (+) vs. Constantan (-)	J	32 to 1382°F	0 to 750°C	± 2.2°C or ± 0.75%	± 1.1°C or ± 0.4%
Chromel™ (+) vs. * Alumel™ (-)	K	32 to 2282°F	0 to 1250°C	± 2.2°C or ± 0.75%	± 1.1°C or ± 0.4%
Chromel™ (+) vs. Constantan (-)	E	32 to 1652°F	0 to 900°C	± 1.7°C or ± 0.5%	± 1.0°C or ± 0.4%
Copper (+) vs. Constantan (-)	T	32 to 662°F	0 to 350°C	± 1.0°C or ± 0.75%	± 0.5°C or ± 0.4%
Platinum -13% Rhodium (+) vs. Platinum (-)	R	32 to 2642°F	0 to 1450°C	± 1.5°C or ± 0.25%	± 0.6°C or ± 0.1%
Platinum -10% Rhodium (+) vs. Platinum (-)	S	32 to 2642°F	0 to 1450°C	± 1.5°C or ± 0.25%	± 0.6°C or ± 0.1%
Platinum -30% Rhodium (+) vs. Platinum 6% Rhodium (-)	B	1598 to 3092°F	870 to 1700°C	± 0.5%	± 0.25%
Nicrosil (+) vs. Nisil (-)	N	32 to 2282°F	0 to 1250°C	± 2.2°C or ± 0.75%	± 1.1°C or ± 0.4%

\* Magnetic ™Trade Mark Hoskins Mfg. Co.