

## MGO Thermocouples

### Type J, K, T and E Thermocouples

- Grounded
- Ungrounded
- Exposed

### Sheath Materials

- 304 Stainless Steel
- 316 Stainless Steel
- Inconel 600

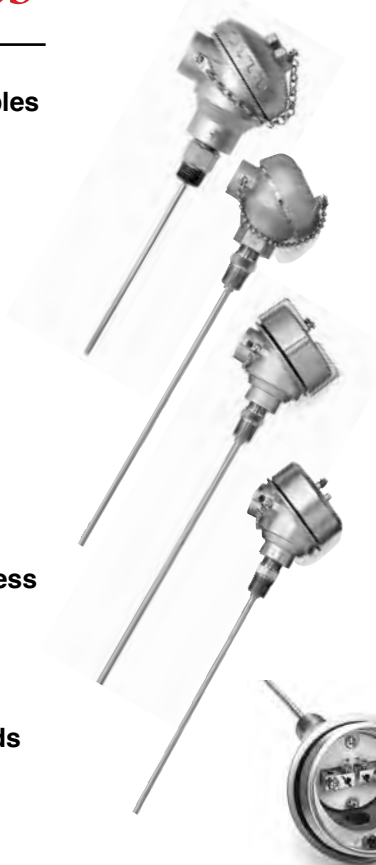
### Connection Heads

- Standard Aluminum
- Aluminum Flip Top
- Cast Iron/Aluminum
- 316 Stainless Steel
- Explosion Proof 316 Stainless Steel
- Explosion Proof Aluminum

### Termination Options

- T/C wire with Stripped Leads
- Spade Lugs
- Thermocouple Plugs
- Terminal Blocks for Connections Heads

*Connection Head*



*Connection Heads*



*Connection Head*



*Thermowells*



*Junction Fittings*



*Connectors*

### *Description*

Industrial MGO insulated thermocouples are equipped with heavy duty features such as metal jacketed lead wire and metal connection heads. Their rugged design enables them to be used in harsh environments and continuous processes. MGO Thermocouples are integral components of all thermal systems. A wide selection of sensors, connection heads, lead wire termination options and accessories are available from stock or can be quickly manufactured to customer specifications.

## MGO Thermocouples

### Ordering Information

CODE	Thermocouple Alloy	Min Temp. °F	Max Temp °F
J	Iron/Constantan	32	700
K	Chromel/Alumel	32	1600
T	Copper/Constantan	-328	400
E	Chromel/Constantan	32	800
CODE	Number of Elements		
S	One (Single)		
D	Two (Dual)		
CODE	Sheath Diameter		
A	1/16"		
B	1/8"		
C	3/16"		
E	1/4"		
F	3/8"		
CODE	Sheath Material	Thermocouple Type	
2	304 Stainless Steel = General Purpose, Good Corrosion Resistance	J, K, T, E	
3	316 Stainless Steel = Superior Corrosion Resistance	J, K, T, E	
4	Inconel 600 = Excellent Corrosion Resistance at High Temperatures	J, K,	
CODE	Junction		
G	Grounded		
U	Ungrounded		
E	Exposed (Not available on 1/16" Diameter Sheath)		
CODE	PROBE LENGTH (On bent T/Cs PROBE LENGTH = Hot Leg + Cold Leg)		
XXX	XXX = Probe Length in Inches		
CODE	Fraction of an inch Probe Lengths		
A	None		
B	1/4"		
C	1/2"		
E	3/4"		
CODE	Sheath Bend and Angle		
000	None		
2XX	45° Sheath Bend XX = Length in inches from Probe Tip to start of bend (Hot Leg)		
3XX	90° Sheath Bend XX = Length in inches from Probe Tip to start of bend (Hot Leg)		
CODE	Junction Fitting		
J1	None (Epoxy Seal)		
J3	1/2" x 1/2" NPT 316 Stainless Steel Hex Nipple (For Connection Head or Replacement Probe)		
J4	Spring loaded 1/2" x 1/2" NPT 316 Stainless Steel Hex Nipple (Connection Head Use Only)		
J5	Stainless Steel transition Joint (400°F Max) with spring style strain relief		
J6	Stainless steel transition Joint with High Temp. Potting (1000°F) with spring style strain relief		
J7	Stainless steel transition fitting without strain relief		
J8	Stainless steel transition fitting same diameter as sheath (Not available on 1/16" Diameter Sheath)		
JC	1/2" NPT Fixed Bushing 316 Stainless Steel		
CODE	Lead-Wire Type & Connection Head Options	Thermocouple Types	
NA	None	J,K,T,E	
F1	Fiberglass insulation-solid conductor	J,K,T	
F2	Fiberglass insulation-solid conductor (flexible armor)	J,K,T	
F3	Fiberglass insulation-solid conductor (stainless steel overbraid)	J,K	
F4	Fiberglass insulation-stranded conductor	J,K	
F5	Fiberglass insulation-stranded conductor (flexible armor)	J,K	
F6	Fiberglass insulation-stranded conductor (stainless steel overbraid)	J	
T1	Teflon insulation-solid conductor	J,K,T	
T2	Teflon insulation-solid conductor (flexible armor)	J,K,T	
T3	Teflon insulation-stranded conductor	J,K	
T4	Teflon insulation-stranded conductor (flexible armor)	J,K	
H1	Cast Aluminum Connection Head with Terminal Block	J,K,T,E	
H2	Flip Top Aluminum Connection Head w/Terminal Block	J,K,T,E	
H4	Explosion Proof 316 SS Conn. Head w/Terminal Block	J,K,T,E	
H5	316 Stainless Steel Connection Head with Terminal Block	J,K,T,E	
H7	Cast Iron Connection Head with Terminal Block	J,K,T,E	
H8	Explosion-Proof Cast Iron/Alum. Conn. Head w/Terminal Block	J,K,T,E	

J S E 2 U- 012 A 000- J5 T3

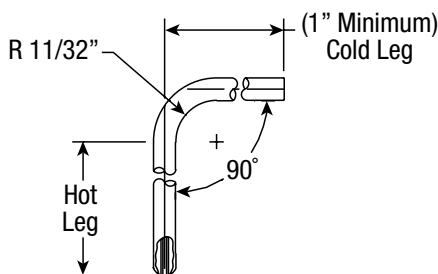
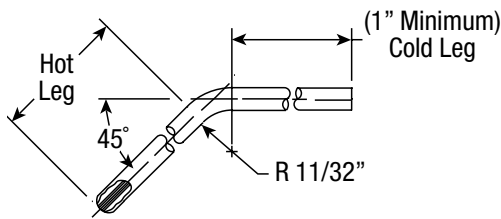
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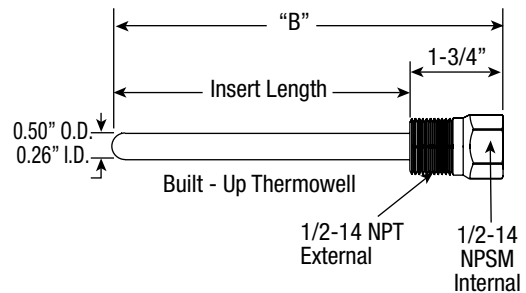
### Ordering Information (continued)

										CODE	Lead Length "F" Dimension	
										XXX	XXX = Lead Length in Inches	
										CODE	Termination Options	Thermocouple Types
										01	None	J,K,T,E
										02	Leads stripped 2"	J,K,T,E
										03	Leads stripped 2" with spade lugs	J,K,T,E
										04	Leads stripped 2" with 1/2" NPT Bx connector	J,K,T,E
										05	Leads stripped 2" with spade lugs & 1/2" NPT Bx connector	J,K,T,E
										06	Standard thermocouple plug*	J,K,T
										07	Standard thermocouple jack*	J,K,T
										08	Standard thermocouple plug with mating connector*	J,K,T
										09	Standard thermocouple jack with mating connector*	J,K,T
										10	Miniature thermocouple plug*	J,K
										11	Miniature thermocouple jack*	J,K
										12	Miniature thermocouple plug with mating connector*	J,K
										13	Miniature thermocouple jack with mating connector*	J,K
										18	Thermowells for 1/4" diameter Probes (4" to 26" length), Matching Built-Up Protection Wells, External 1/2" NPT and Internal 1/2" NPT, 316SS, .260 Bore	
											* Plugs and Jacks 500°F maximum temp., single element thermocouples only	
J	S	E	2	U-	012	A	000-	J5	T3	036	02	Typical Model Number

### Bend Dimensions

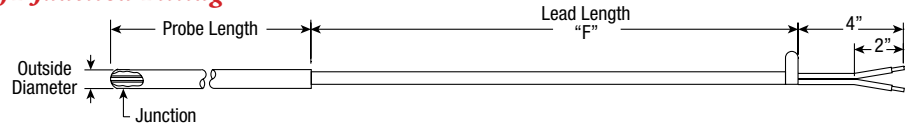


### Built Up Thermowell

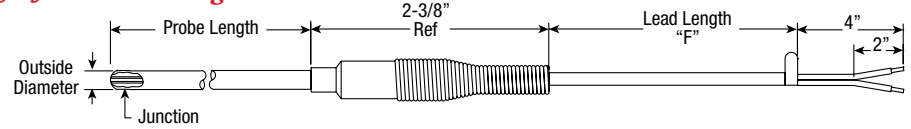


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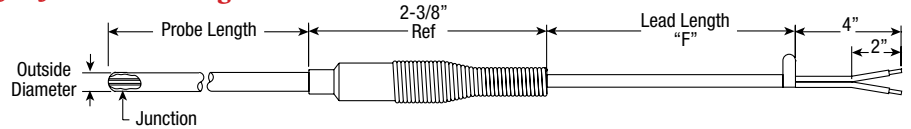
**J1 Junction Fitting**



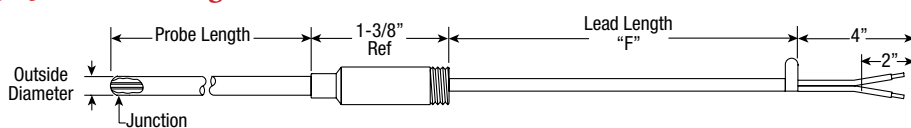
**J5 Junction Fitting**



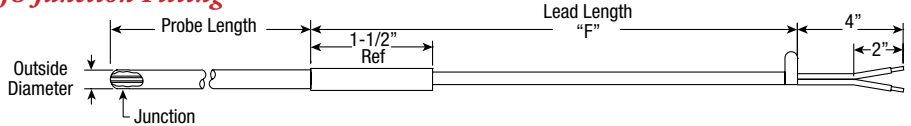
**J6 Junction Fitting**



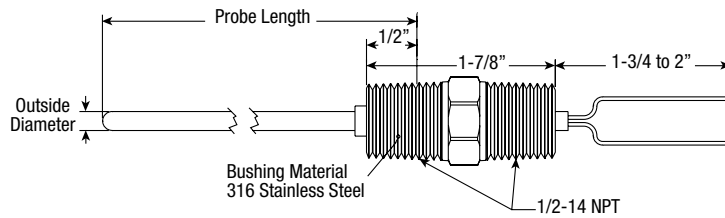
**J7 Junction Fitting**



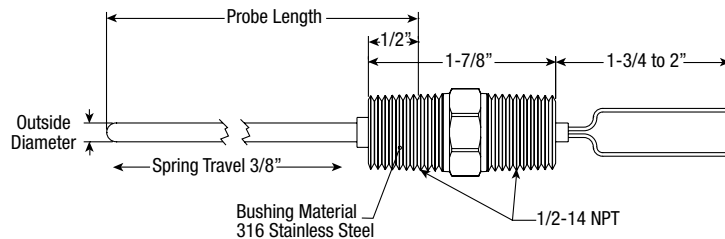
**J8 Junction Fitting**



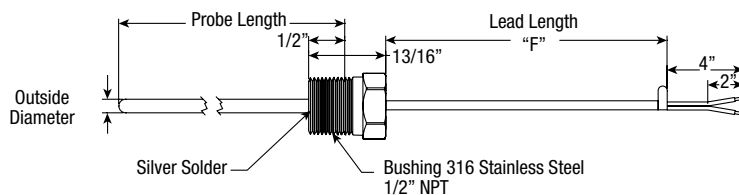
**J3 Junction Fitting (Fixed)**



**J4 Junction Fitting (Spring Loaded)**

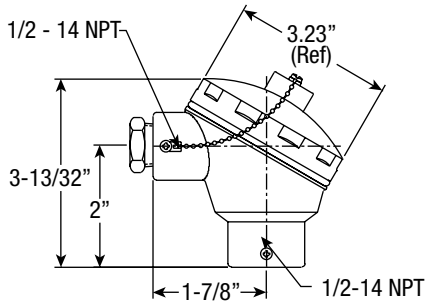


**JC Junction Fitting (Fixed)**

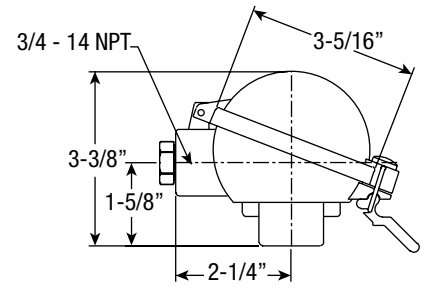


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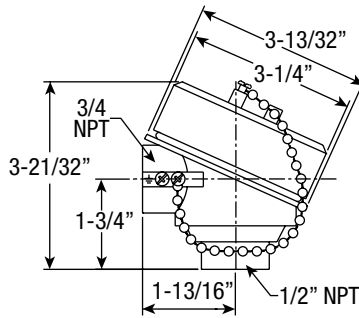
### Connection Heads



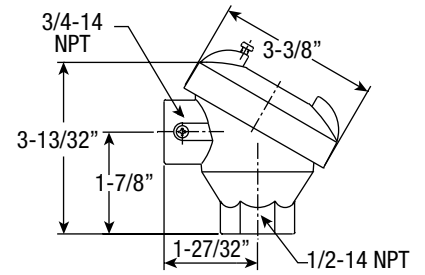
**H1**



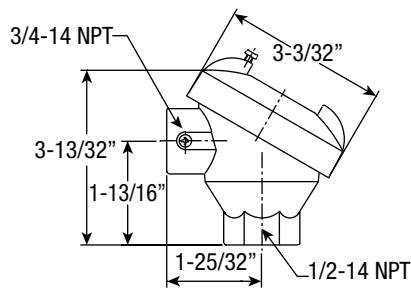
**H2**



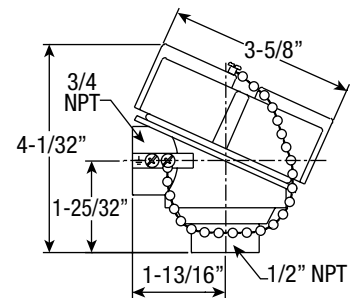
**H4**



**H5**



**H7**



**H8**

