

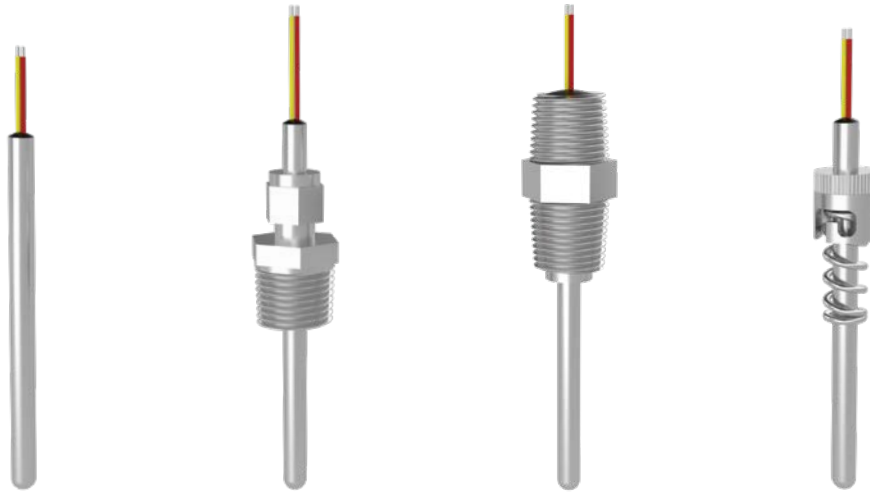
THERMOCOUPLE STEM ASSEMBLY WITH PLAIN LEADS

Reotemp Thermocouple Stem Assemblies with plain leads are typically used to hook up to a transmitter or terminal block close to the location of the stem.

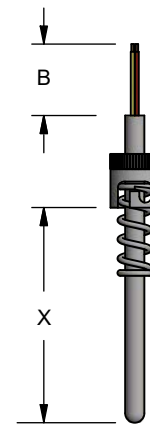
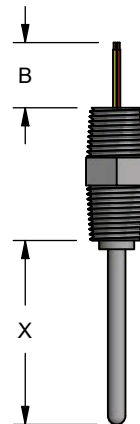
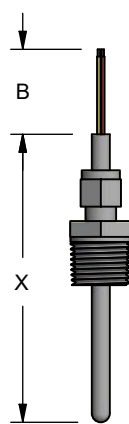
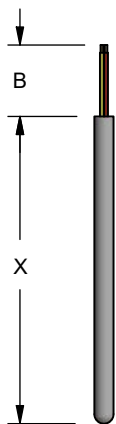


Made in USA

THERMOCOUPLES



Plain Stem	Compression Fitting	Hex Bushing	Bayonet Cap
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THERMOCOUPLE STEM ASSEMBLY WITH PLAIN LEADS

BUILD YOUR STEM ASSEMBLY : Choose options to build a part number. For example: **ATM25J1SG6L6SSS-TS**

THERMOCOUPLES

STYLE		STEM OPTIONS (OPTIONAL)	
A	Plain Stem (Lead Assembly)	H	Spring Loaded Bushing
B	Welded SS Bushing	P	1/2" NPT Nipple w/ Bayonet
R	Bayonet Cap w/ Spring	S	Load Spring Only
4T	5" Nominal Spring Loaded N-U-N 316SS		
<i>Leave blank for no stem option.</i>			
T	1/4" NPT Sliding Compression Fitting Loose On Plain 316SS Stem	U	1/2" NPT Sliding Compression Fitting Loose On Plain 316SS Stem
V	1/8" Compression Fitting Loose on Plain 316SS Stem	W	Weld Pad, 1"x1"x1/8"

Note: Compression fitting lengths will decrease overall stem length.

METAL SHEATHED	SHEATH DIAMETER	THERMOCOUPLE TYPE	TYPE OF SHEATH MATERIAL	NUMBER OF ELEMENTS	TYPE OF JUNCTION
M = Metal Sheathed Thermocouple	06 = 0.062 in.* 12 = 0.125 in.* 18 = 0.188 in.* 25 = 0.250 in. 37 = 0.375 in.	*If style A, P, R or S is chosen, please use part builder on page 16. These diameters require a transition. J = Type J K = Type K E = Type E T = Type T JS = Type J Special Limits of Error KS = Type K Special Limits of Error ES = Type E Special Limits of Error TS = Type T Special Limits of Error	1 = 316 Stainless Steel 2 = 310 Stainless Steel 3 = 304 Stainless Steel 5 = Inconel 600	S = Single Element Assembly D = Dual Element Assembly	G = Grounded U = Ungrounded E = Exposed UU = Ungrounded Uncommon

STEM LENGTH "X"	LEAD WIRE	LEAD LENGTH "B"	INSULATION /CONDUCTOR	WIRE TERMINATION	OPTIONS
?? = Stem Length in Inches	L = Lead Wire	?? = Insert "B" Length in Inches	T1 = Teflon, Solid F1 = Fiberglass, Solid T2 = Teflon, Stranded F2 = Fiberglass, Stranded (J&K Only) P1 = PVC, Solid SS = Strip and Sealed MI Cable Leads with Color Coded Heat Shrink	P = Plain Leads (Not Stripped) S = Stripped Leads L = Spade Lugs T = Terminal Pins M = Copper Crimp Pins	-TS = Stainless Tag -R1 = One Point Calibration Certification (Reotemp Chooses Point) -R3 = Three Point Calibration Certification (Reotemp Chooses Point) <i>For additional options see page 146.</i>

REFERENCE INFORMATION

THERMOCOUPLES

THERMOCOUPLE WIRE COLOR CODES (U.S.A. ANSI)					
Thermocouple Grade	Extension Grade	Plug/Jack	Thermocouple Grade	Extension Grade	Plug/Jack
K		Yellow	N		Orange
J		Black	S		Green
T		Blue	R		Green
E		Purple	B		White

THERMOCOUPLE & RTD ACCURACIES

	Type K	Type J	Type T	Type E	Type N	Type S	Type R	Type B	RTD Class B	RTD Class A
-328°F	*	–	*	*	–	–	–	–	± 2.34°F	± 2.34°F
-148°F	*	–	*	*	–	–	–	–	± 1.44°F	± 1.44°F
32°F	± 3.96°F	± 3.96°F	± 1.8°F	± 3.06°F	± 3.96°F	± 2.7°F	± 2.7°F	–	± 0.54°F	± 0.27°F
392°F	± 3.96°F	± 3.96°F	± 2.7°F	± 3.06°F	± 3.96°F	± 2.7°F	± 2.7°F	–	± 2.34°F	± 0.99°F
752°F	± 5.4°F	± 5.4°F	–	± 3.6°F	± 5.4°F	± 2.7°F	± 2.7°F	–	± 4.14°F	± 4.14°F
1112°F	± 8.1°F	± 8.1°F	–	± 5.4°F	± 8.1°F	± 2.7°F	± 2.7°F	–	± 5.94°F	± 5.94°F
1472°F	± 10.8°F	–	–	± 7.2°F	± 10.8°F	± 3.6°F	± 3.6°F	–	–	–
1832°F	± 13.5°F	–	–	–	± 13.5°F	± 4.5°F	± 4.5°F	± 9°F	–	–
2192°F	± 16.2°F	–	–	–	± 16.2°F	± 5.4°F	± 5.4°F	± 10.8°F	–	–
2552°F	–	–	–	–	–	± 6.3°F	± 6.3°F	± 12.6°F	–	–
2912°F	–	–	–	–	–	–	–	± 14.4°F	–	–

Note: The accuracies in the above table are estimates given at fixed points, they do not apply to temperature ranges and are intended only as examples to give a general idea of what can be expected. Consult Reotemp if a specific accuracy is required or to confirm accuracies at any points not listed in the above table.

*Thermocouples are normally supplied to meet the tolerances specified in the table for temperatures above 32°F. The same materials, however, may not fall within the tolerances for temperatures below 32°F. If materials are required to meet the tolerances stated for temperatures below 32°F, contact Reotemp sales.

Looking for better accuracy?



Reotemp offers **RTDs** up to 5x more accurate than Class B RTDs with the Hi-Accuracy™ option.

Thermocouples up to 2x more accurate with the Special Limits of Error option.

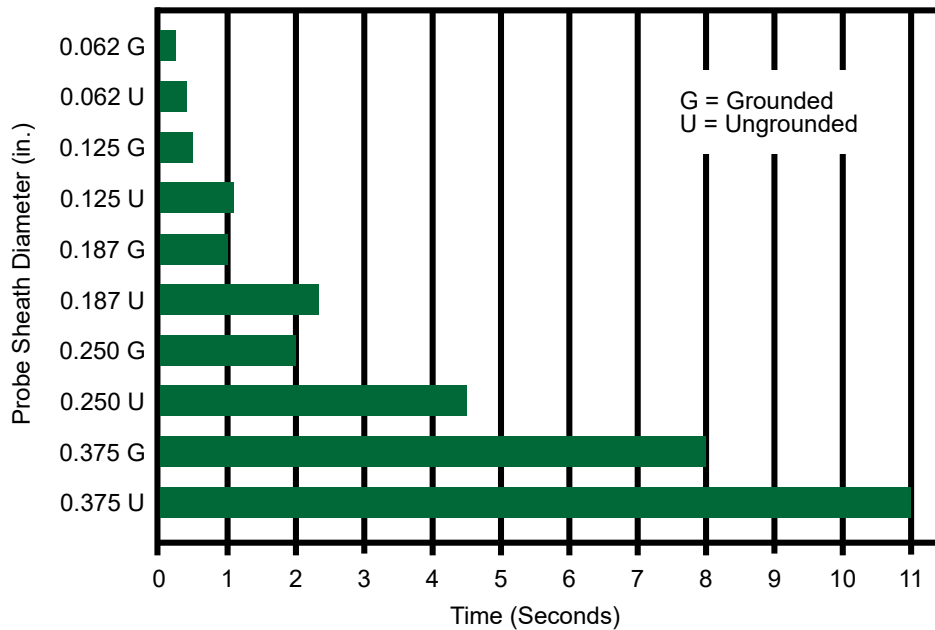
REFERENCE INFORMATION

THERMOCOUPLE TEMPERATURE OPERATING RANGES

Type	Minimum Temp. °F	Maximum Temp. °F
K	-328	2300
J	32	1400
T	-328	700
E	-328	1600
N	32	2300
S	32	2700
R	32	2700
B	1600	3100

THERMOCOUPLE TYPICAL RESPONSE TIMES

63.2% Temperature Change in an Agitated Water Bath



TEMP. LIMITS OF WIRE JACKETS

Jacket	Temp. Limit
PVC	221°F
Teflon	400°F
Fiberglass	900°F

THERMOCOUPLE & RTD OPTIONS

		Thermocouple	RTD	Digital Thermometers	Handheld Digital
CERTIFICATION OPTIONS					
-R1	1 Point Calibration Certification, Reotemp Chooses	✓	✓	✓	✓
-R3	3 Point Calibration Certification, Reotemp Chooses	✓	✓	✓	✓
-C1	1 Point Calibration Certification, Customer Chooses	✓	✓	✓	✓
-C3	3 Point Calibration Certification, Customer Chooses	✓	✓	✓	✓
-CC	Certificate of Conformance	✓	✓	✓	✓
-CS	NIST Calibration Sticker (No Logged Points)	✓	✓	✓	✓
OTHER OPTIONS					
-VB	Hi-Vibration	N/A	✓	✓	✓
-AC	Hi-Accuracy	N/A	✓	N/A	N/A
-PS	Pointed Stem	✓	✓	✓	✓
-TF	Teflon Coating	✓	✓	✓	✓
-SS	316 SS stem	N/A	STD	✓	✓
-NL	No Logo	✓	✓	✓	✓
-HT	Heat Transfer Compound (2 oz)	✓	✓	✓	N/A
-GL	Plain Glass Lens	N/A	N/A	✓	✓
-CL	Custom Logo Dial	N/A	N/A	✓	✓
-BP	Replacement Battery Pack	N/A	N/A	✓	✓
-WD	White Dial	N/A	N/A	✓	✓
-AS	Allows to Fit 1-1/4-18 Industrial Thermowell	✓	✓	✓	N/A
TAG OPTION					
-TS	Stainless Steel Tag (1-10 Characters)			✓	
-TM	Stainless Steel Tag (11-80 Characters)			✓	
-TP	Paper Tag			✓	

✓	Indicates that the option is available with this model.
N/A	Indicates the option is not available with this model.
STD	Indicates standard options with no additional cost.