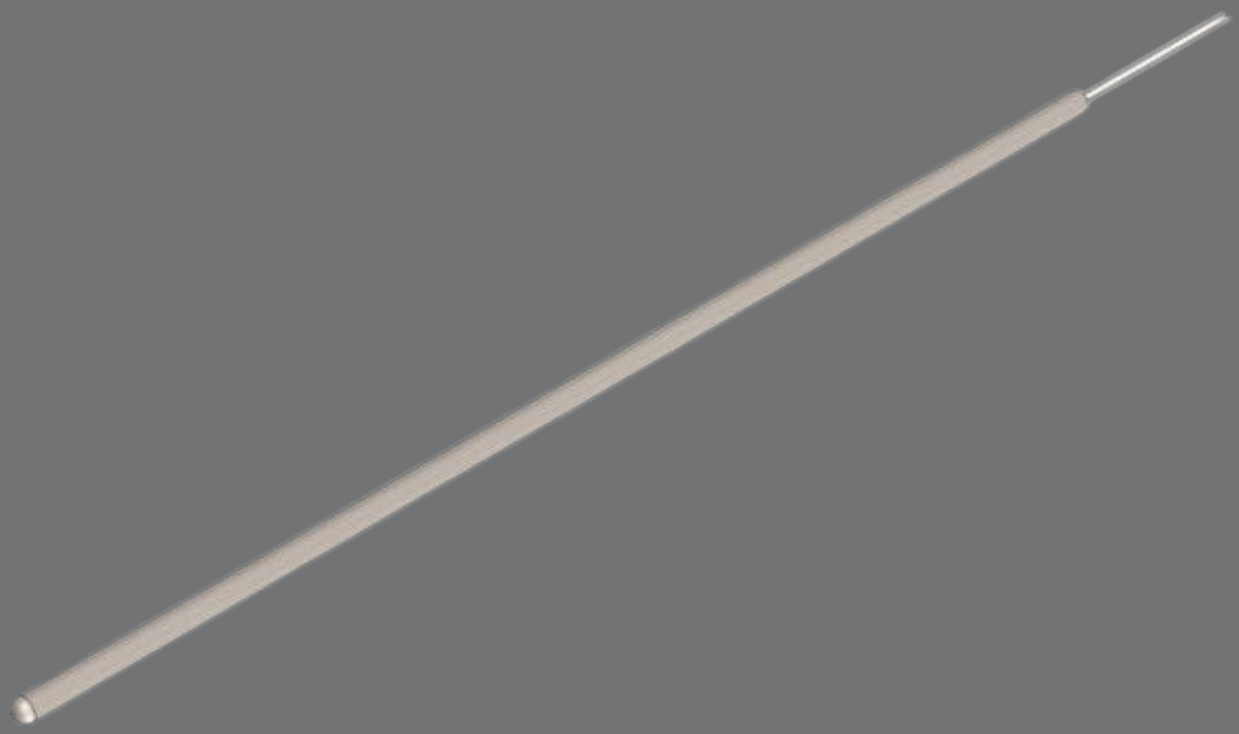
Model 101 and 103 general purpose thermocouples

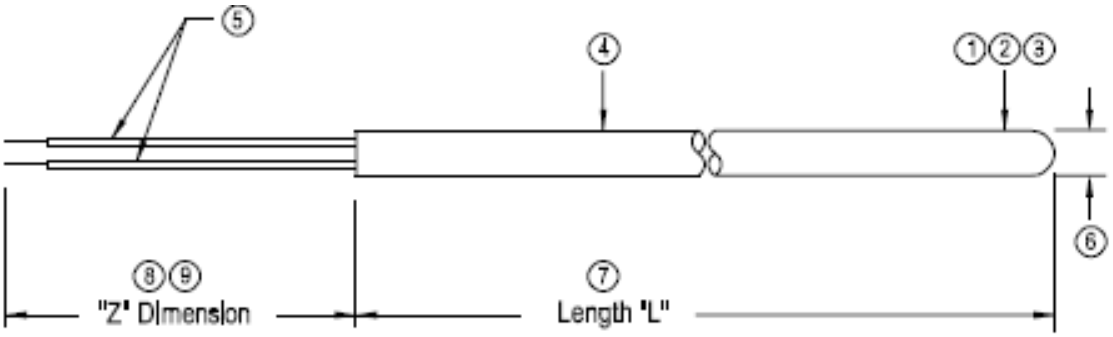


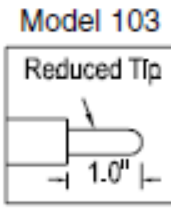
Overview

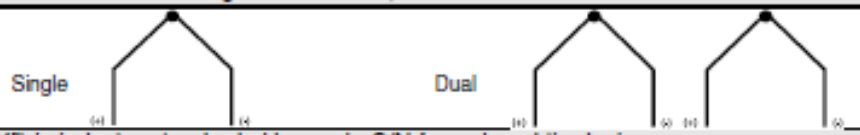
Model 101 is a straight sheath temperature sensor. Refer to Model 201 if welded fitting is required and the 300 Series if spring loading is required.

Model 103 is a reduced tip/fast response temperature sensor. Refer to Model 203 if welded fitting is required.

Technical specification





1. Base Model	Base Model/Series Number.
2. A. Accuracy:	ANSI Special Limits of Error is standard. See Thermocouple General Specifications.
B. Type:	Application dependent. See Thermocouple General Specifications.
C. Response Time:	Dependent on sheath diameter and measuring junction. See Thermocouple General Specifications.
D. Tip Sensitivity:	Thermocouples are inherently tip sensitive.
3. Grounded:	At the tip, thermocouple wires are attached to inside of probe wall, resulting in quick response time.
Ungrounded:	At the tip, thermocouple wires are insulated from the inside of probe wall; results are a slower response time but increased isolation.
Exposed:	Thermocouple junction protrudes out of sheath tip, results are quickest response time, but limited to use in non-corrosive, non-pressurized applications.
4. Construction:	Code A - 316SS tube construction, Teflon insulated lead wire. Code C - 316SS MgO construction, Teflon insulated lead wire. Code B - Inconel sheathed MgO construction, Teflon insulated lead wire.
5. Lead Wires:	
6. Sheath Diameter:	.250" (1/4") is industry standard. Use code C/N for reduced tip design.
7. Sheath Length:	Entire stem length.
8. Lead Wire Length:	Length of wires beyond the sheath. Use Z000 if connector is installed directly on the end of sheath.
9. Lead Wire Protection:	Stainless Steel Overbraid or Stainless Steel Armor. Order length at 3-6" shorter then lead wire length. Example: Z024-X020
10. Connectors:	Optional male plug for sensor end. For mating jack add code "/J".
11. Optional Fittings:	Sensor is not supplied with mounting hardware, specify optional fitting.

Technical specification

Model	Description
101	General Purpose Thermocouple (Non-Spring Loaded)
103	Reduced Tip/ Fast Response Thermocouple (Non-Spring Loaded)

1

Code	Thermocouple Type	Range	
J	Type J Thermocouple	32 to 1400°F	0 to 760°C
K	Type K Thermocouple	-328 to 2300°F	-200 to 1260°C
T	Type T Thermocouple	-328 to 700°F	-200 to 371°C
E	Type E Thermocouple	-328 to 1600°F	-200 to 871°C
R	Type R Thermocouple	32 to 2700°F	0 to 1482°C
S	Type S Thermocouple	32 to 2700°F	0 to 1482°C
B	Type B Thermocouple	32 to 3100°F	0 to 1704°C
N	Type N Thermocouple	-454 to 2372°F	-270 to 1300°C

Add "MT" for matched to transmitter. See Thermocouple General Specifications.

2

Code	Junction Type
G	Grounded
U	Ungrounded
E	Exposed

3

Code	Construction Temperature Limit
A	500° F Maximum
C	1600° F Maximum
B	2300° F Maximum

4

Code	Number of Lead Wires
2	Single Thermocouple
4	Dual Thermocouple

5

Code	Sheath Diameter	Model
A	.125" Diameter	101
B	.187" Diameter	101
C	.250" Diameter	101
C/N	.250" (1/4") Diameter / .156" Diameter Tip	103
A/G	.125" (1/8") Diameter / .063" Diameter Tip	103
Other	Consult factory	

6

Code	Sheath Length
XXX.X	Specify length to nearest 0.1"

7

Code	Lead Wire Length
Z003	3" - Standard with head
Z024	24" - Standard without head
ZXXX	Other - consult factory

8

Code	Lead Wire Protection
X___	Stainless steel overbraid-(specify inches)
Y___	Stainless steel armor - (specify inches)
Other	Consult factory

9

Code	Connectors
P1	Standard Size, Standard Temperature
P2	Standard Size, High Temperature
P3	Miniature, Standard Temperature
P4	Miniature, High Temperature
	(add /"J" for optional mating jack)

10

Code	Optional Fittings	
A1S	Compression:	1/8" Sheath x 1/8" NPT SS
B1S		3/16" Sheath x 1/8" NPT SS
B2S		3/16" Sheath x 1/4" NPT SS
C1S		1/4" Sheath x 1/8" NPT SS
C2S		1/4" Sheath x 1/4" NPT SS
C3S		1/4" Sheath x 1/2" NPT SS
NS1		1/4" Sheath x 1/2" NPT Hex Nipple
NS2		3/16" Sheath x 1/2" NPT Hex Nipple
NS3		1/8" Sheath x 1/2" NPT Hex Nipple
310	Spring-Loaded:	Spring loaded Hex Fitting Kit
FS5		1/4" Sheath 1/2" X 1/2" Hex Fitting With Adjustable Fluid Seal
	Other	Consult Factory

11

101	-	J	-	G	-	C	-	2	-	C	-	012.0	-	Z024	-	X020	-		-	NS1	
	-		-		-		-		-		-		-		-		-		-		Your Model Number

Sample Model Number

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