

Models 101, 102, & 103 General Purpose RTDs

Designed for a wide range of applications where a simple mounting scheme is required.



Model 101 is a Straight Sheath temperature sensor.

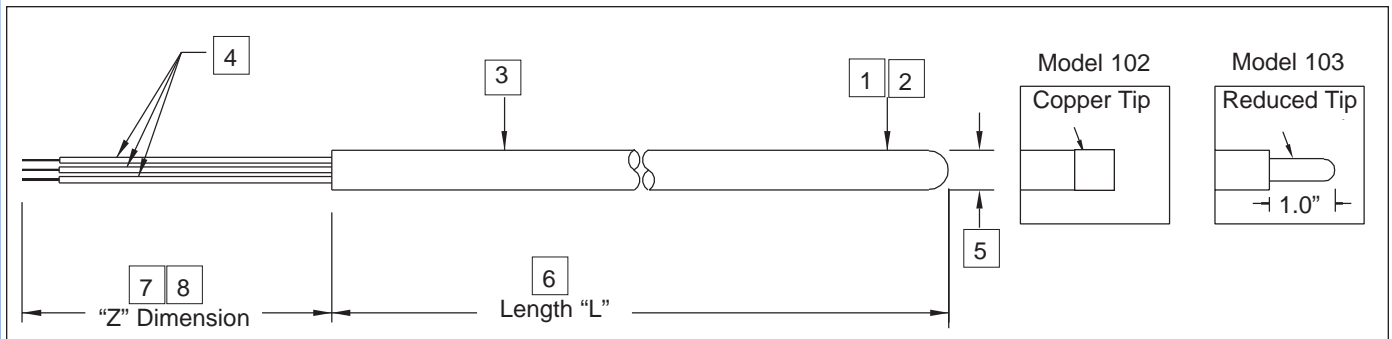
- Refer to Model 201 if welded fitting is required.
- Refer to 300 Series if spring loading is required.

Model 102 is a Copper Tip Sensitive temperature sensor.

- Refer to Model 303 or 304 if spring loading is required.

Model 103 is a Reduced Tip/Fast Response temperature sensor.

- Refer to Model 203 if welded fitting is required.



Specifications:

1. Model	Base Model/Series Number.												
2. A. Accuracy:	<i>Standard</i> Class B (no code) <i>High</i> Class A (code H) <i>Special</i> Customer Specified (code S) * Industry Standard is DIN Curve (code 01B), Platinum, 100 ohms @ 0°C. Conforms to IEC 751, DIN 60751.												
B. TCR:	Temperature Coefficient of Resistance is the temperature vs. resistance characteristics of a given metal (Pt, Cu & Ni) used in manufacturing the RTD. Determines the curve of the RTD.												
C. Ice Point Resistance:	R ₀ - Resistance at 0°C (32°F)												
D. Response Time:	Dependent on sheath diameter, the smaller the diameter - the faster the response. See RTD General Specs.												
E. Tip Sensitivity:	Model 102 Copper Tip, element is encapsulated in copper to increase sensitivity at tip of probe.												
3. Construction:	Code A - 316SS tube and wire construction, thin film element (.00385055) TCR, Teflon insulated lead wire. Code C - 316SS tube and wire construction, wire wound element, fiberglass insulated lead wire. Code B & D - Inconel sheathed MgO construction, wire wound element, fiberglass insulated lead wire.												
4. Lead Wires:	<table border="0" style="width: 100%; text-align: center;"> <tr> <td style="width: 25%;">3 - Wire</td> <td style="width: 25%;">4 - Wire</td> <td style="width: 25%;">6 - Wire (Dual 3 - Wire)</td> <td style="width: 25%;">8 - Wire (Dual 4 - Wire)</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>W R R</td> <td>W W R R</td> <td>W R R Y BK BK</td> <td>W W R R BK BK Y Y</td> </tr> </table>	3 - Wire	4 - Wire	6 - Wire (Dual 3 - Wire)	8 - Wire (Dual 4 - Wire)					W R R	W W R R	W R R Y BK BK	W W R R BK BK Y Y
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W R R	W W R R	W R R Y BK BK	W W R R BK BK Y Y										
5. Sheath Diameter:	.250" (1/4") is the industry standard. Code C/N for reduced tip design.												
6. Sheath Length:	Entire stem length.												
7. Lead Wire Length:	Length of wires beyond the sheath. Use Z000 if connector is installed directly on the end of sheath.												
8. Lead Wire Protection:	Stainless Steel Overbraid or Stainless Steel Armor. Order length at 3"-6" shorter than lead wire length. Example: Z024-X020												
9. Connectors:	Optional male plug for sensor end. For mating jack add code "/J".												
10. Optional Fittings:	Sensor is not supplied with mounting hardware, specify optional fitting.												
11. Water resistant:	Increases moisture protection for humid environments.												

Model	Description
101	General Purpose RTD
102	General Purpose, Tip Sensitive RTD (Non-Spring Loaded)
103	General Purpose, Reduced Tip/Fast Response RTD (Non-Spring Loaded)

1	Code	R ₀ & Temperature Coefficient		
	01B	100 ohm Platinum	.00385055	TCR 100 ohms @ 0° C - Industry Standard
	01A	100 ohm Platinum	.003902	TCR 100 ohms @ 0° C
	10A	1000 ohm Platinum	.003902	TCR 1000 ohms @ 0° C
	10B	1000 ohm Platinum	.00385055	TCR 1000 ohms @ 0° C
	12N	120 ohm Nickel	.00672	TCR 120 ohms @ 0° C
	09C	10 ohm Copper (9.035)	.004274	TCR 10 ohms @ 25° C
		Add Code "H" for higher accuracy Add Code "S" for special accuracy Add Code "M_", ME for matched to element, MT for matched to transmitter, MP for two matched probes.		

2	Code	Construction Temperature Limit	For Models
	A	500° F Maximum	All
	C	900° F Maximum (Platinum Only)	101 & 103
	D	1200° F Maximum (Platinum Only)	101 & 103
	B	1700° F Maximum (Platinum Only)	101 & 103

3	Code	Number of Lead Wires	For Models
	2	2-Wire (No lead Compensation)	All
	3	3-Wire (Lead Compensation)	All
	4	4-Wire (Complete Compensation)	All
	6	Dual 3-Wire (With dual element)	101
	8	Dual 4-Wire (With dual element)	101

4	Code	Sheath Diameter	For Models
	A	.125" (1/8") Diameter	101
	B	.187" (3/16") Diameter	101
	C	.250" (1/4") Diameter	All
	C/N	.250" (1/4") Dia. Sheath/.156" Dia. Tip	103
	Other	Consult factory	

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

6	Code	Lead Wire Length
	Z006	6" - Standard with head
	Z024	24" - Standard without head
	ZXXX	Other - Consult factory

7	Code	Lead Wire Protection
	X__	Stainless steel overbraid - (specify inches)
	Y__	Stainless steel armor - (specify inches)
	Other	Consult factory

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

9	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 1/2" x 1/2" Hex Fitting Kit
	F5S	1/4" Sheath 1/2" X 1/2" Hex Fitting With Adjustable Fluid Seal
	Other	Consult Factory

10	Code	Option
	W	Water Resistant

101	-	01B	-	A	-	3	-	C	-	012.0	-	Z024	-	X020	-	-	-	NS1	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Sample Model Number

Your Model Number

