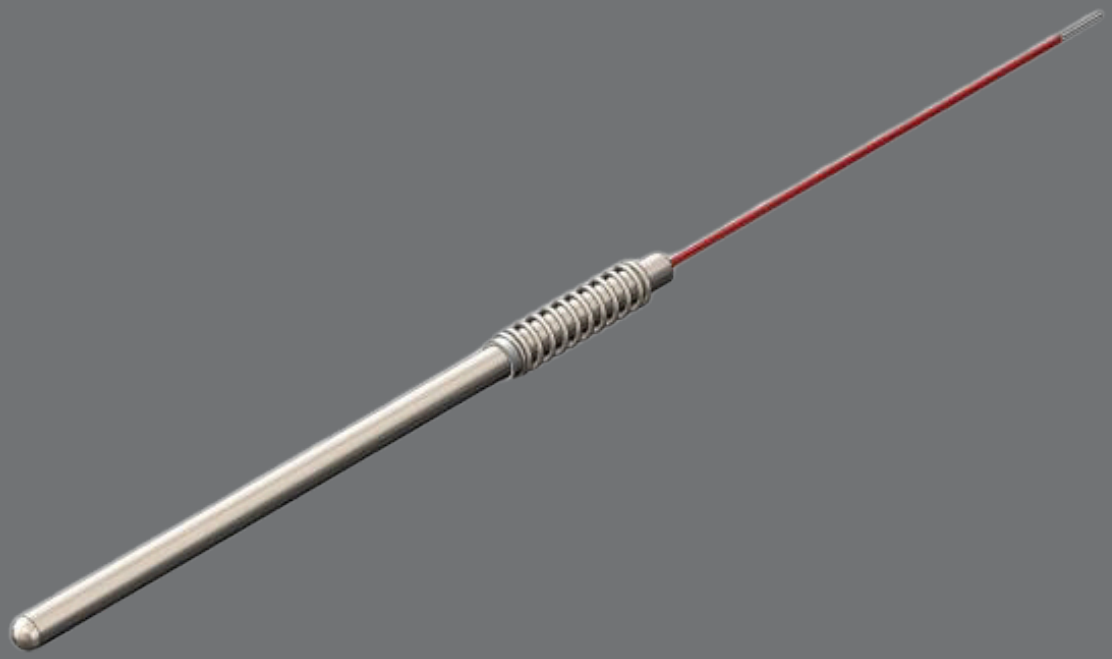
Model 302 and 303 spring loaded RTDs for general purpose housings



Overview

Designed for applications where a general purpose head and a thermowell are required. The spring loaded action of this RTD ensures proper contact with the tip of the thermowell for maximum heat transfer.

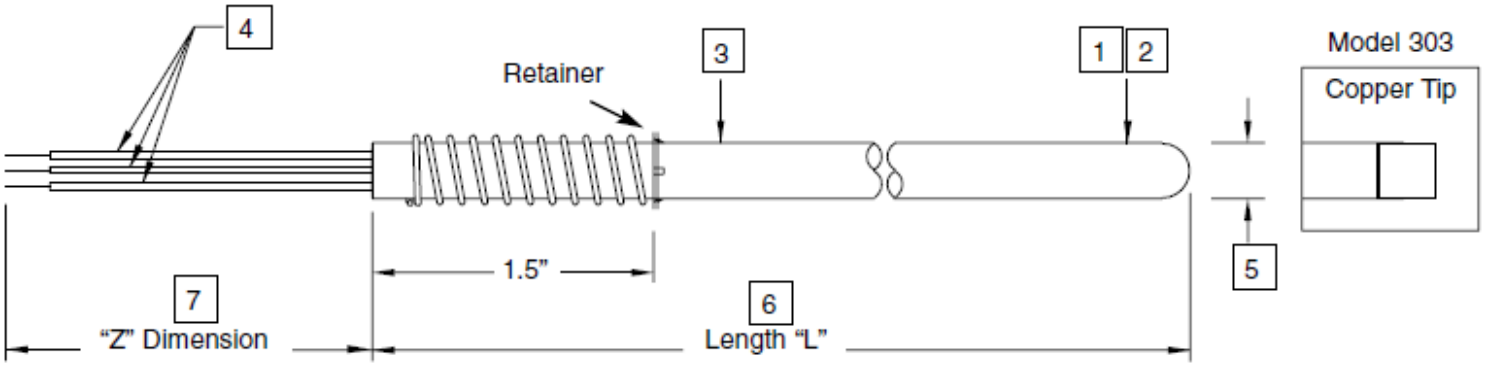
Key features

- Model 302 is a spring loaded temperature sensor intended to be used in a thermowell. Refer to Model 301 for explosion proof connection head applications. Refer to Model 305 if spring loaded hex fitting is required.
- Model 303 is a spring loaded, tip sensitive temperature sensor. The tip sensitive design is ideal for bearing temperature applications. Refer to Model 304 for cast iron explosion-proof connection head applications. Refer to Model 102 if spring-loading is not required.

Technical specification

Feature	Description
Element type	Standard platinum, 100 ohms @ 0C (32F), .00385 TCR, with optional Pt Ro and TCRs available
Accuracy	Standard DIN-B, with optional DIN-A and others available upon request
Construction	Standard 500°F service temperature, with optional high temperature and rugged constructions available
Fittings	Standard 1/2" NPT Hex Nipple, with optional fittings with various NPT connections available
Lead wire configuration	Standard 3 Wire, with optional: 2, 4, 6 or 8 wire
Sensor sheath diameter	Standard 1/4" diameter, with optional 1/8", 3/16" and others available
Lead wire length	Standard 6", with custom length available
Connections	Options of standard and miniature sizes, as well as standard and high temperature ratings
Fittings	Optional compression and spring loaded fittings with various NPT connections
Insulation resistance	Greater than 100 Megohms @ 100VDC @ 21C (70F)

Technical specification



1. Base Model	Base Model/Series Number.	
2. A. Accuracy:	*Standard*	Class B (no code)
	High	Class A (code H)
	Special	Customer Specified (code S)
	* Industry Standard is DIN Curve (code 01B), Platinum, 100@ 0°C. Conforms to IEC 751.	
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 diameter - faster response. See RTD General Specs.	
E. Tip Sensitivity:	Model 303 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, teflon insulated lead wire.	
	Code C - 316SS tube and wire construction, fiberglass insulated lead wire.	
4. Lead Wires:	3 - Wire: W, R R; 4 - Wire: W W, R R; 6 - Wire (Dual 3 - Wire): W, R R Y, BK BK; 8 - Wire (Dual 4 - Wire): W W, R R BK BK, Y Y	
5. Sheath Diameter:	.250" (1/4") is the industry standard.	
6. Sheath Length:	Entire stem length. See sizing chart in RTD General Specifications.	
7. Lead Wire Length:	Length of wires beyond sheath.	
8. Water resistant:	Increases moisture protection for humid environments.	

Technical specification

Model	Description
302	**Spring-Loaded RTD (Legacy Type 1 & 2 Connection Head)**
303	**Spring-Loaded, Tip Sensitive RTD (Legacy Type 1 & 2 Connection Head)**

1

Code	R_0 & Temperature Coefficient			
01B	**100 ohm Platinum**	**.00385055**	**TCR**	**(100 ohms @ 0°C) - Industry Standard**
01AW	100 ohm Platinum	.003902	TCR	(100 ohms @ 0 °C) - wire wound sensing element
10AW	1000 ohm Platinum	.003902	TCR	(1000 ohms @ 0°C) - wire wound sensing element
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)	302
D	1200° F Maximum (Platinum Only)	302
B	1700° F Maximum (Platinum Only)	302

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)	302
8	Dual 4-Wire (With dual element)	302

4

Code	Sheath Diameter	For Models
C	.250" (1/4") Diameter	All
D	.215" (2 or 3 wire only)	All
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	Option
W	Water Resistant

8

303	-	01B	-	A	-	2	-	C	-	012.0	-	Z006	-	Sample Model Number
	-		-		-		-		-		-		-	Your Model Number

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