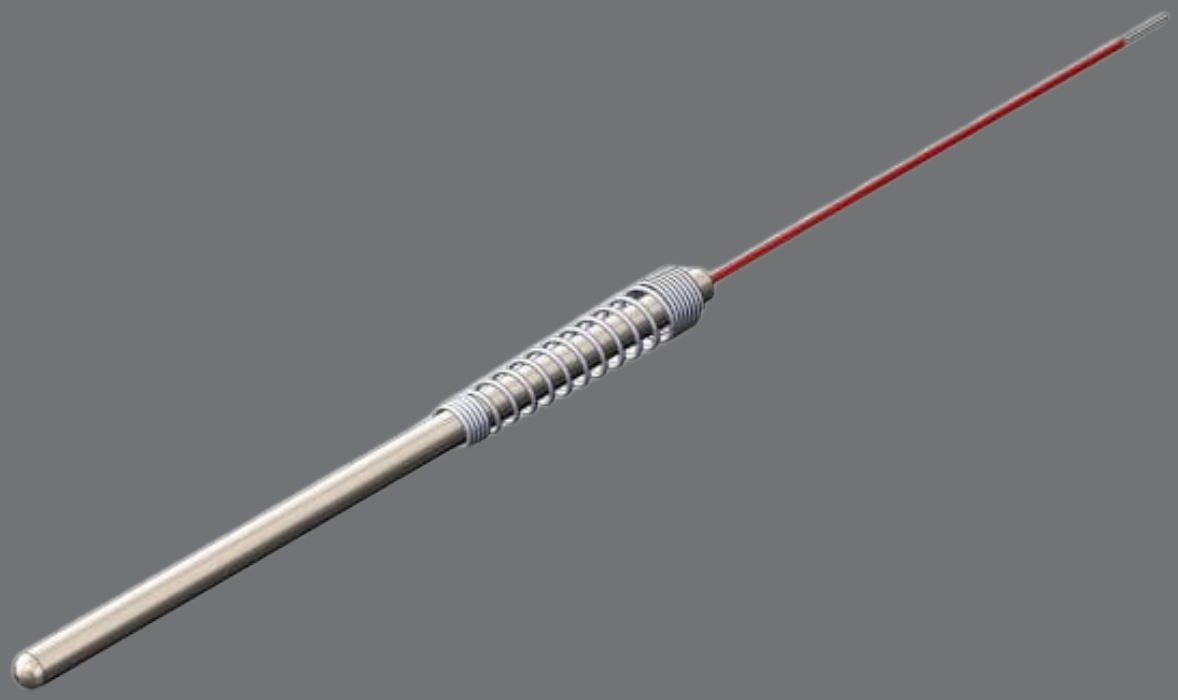
Model 312 spring loaded RTD



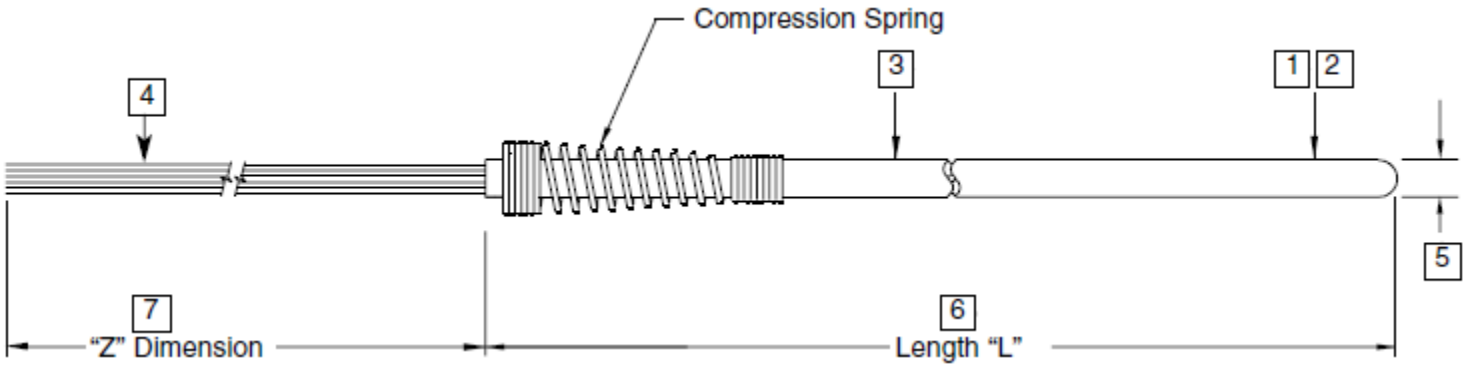
Overview

Model 312 is a spring loaded temperature sensor intended to be used in a thermowell. 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. Refer to model 301 for cast iron explosion-proof connection head applications. Refer to Model 305 if spring-loaded hex fitting is 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
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
Sheath length	Typical 1-1/2" to 42", with custom lengths available
Lead wire length	Standard 6", with custom lengths 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. 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, smaller diameter - faster response. See RTD General Specs.	
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. Code B & D - MgO construction, Teflon 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
312	**Spring-Loaded RTD (for use with all but type 3 connection head)**

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	Temperature Range
A	500° F Maximum
C	900° F Maximum (Platinum Only)
D	1200° F Maximum (Platinum Only)
B	1700° F Maximum (Platinum Only)

3

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

4

Code	Sheath Diameter
C	.250" (1/4") Diameter
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	Options
W	Water Resistant

8

312	-	01B	-	A	-	2	-	C	-	012.0	-	Z006	-	Sample Model Number
	-		-		-		-		-		-		-	Your Model Number

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