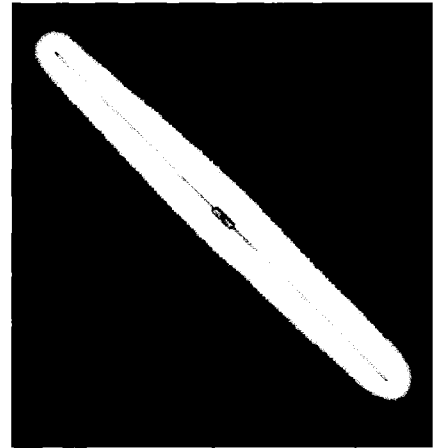


Product Data

Components For The Control Of Energy

Developed from our standard H-Series device is a precision sensor for applications needing tracking ability over a wide temperature range. Tighter tolerance assures less error and interchangeability from sensor to sensor. H-Series Hermetically Sealed Thermistors are small, rugged, and good for use up to 400°C. Dumet leads are weldable and/or solderable.



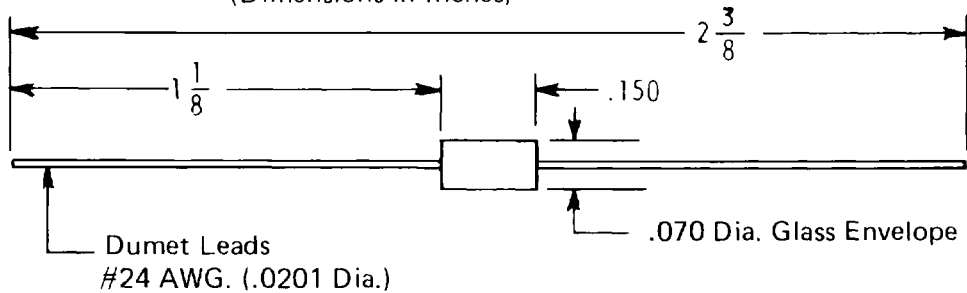
SPECIFICATIONS

Typical Characteristics

Catalog Number	PIH103	PIH203	PIH303	PIH403	PIH503	PIH603	PIH703	PIH803	PIH903	PIH104
Zero Power Resistance @25°C; OHMS ± 2%	10K	20K	30K	40K	50K	60K	70K	80K	90K	100K
Interchangeability °C (0-100°C) (see curve reverse side)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Resistance Ratio;	29.85	29.85	29.85	29.85	29.85	29.85	29.85	29.85	29.85	29.85
*Dissipation Constant (δ);	2	2	2	2	2	2	2	2	2	2
**Thermal Time Constant (τ);(sec.)	8	8	8	8	8	8	8	8	8	8
Time Constant with Stirred Oil (sec.)	1	1	1	1	1	1	1	1	1	1
Maximum Operating Temperature;°C	400	400	400	400	400	400	400	400	400	400

OUTLINE DRAWING

(Dimensions in Inches)



* The ratio, in a 25°C still air ambient, of the power input to raise the Thermistor temperature to 125°C and its temperature rise (125°C—25°C) above ambient.

** Time required for a Thermistor to change 63.2% of the temperature difference between its initial and final body temperature, when subjected to a step function change in temperature under zero-power conditions.

$$\left[\frac{(E_{Th} I_{Th}) @ 125^{\circ}\text{C operating temperature}}{125^{\circ}\text{C} - 25^{\circ}\text{C}} \right]$$

*TODIS017X

Multiplier

100

10

1

.1

.01

.001

-50°

0°

50°

100°

150°

200°

250°

300°

350°

400°

Temperature °C

TEMPERATURE CONVERSION CHART

C	F	C	F	C	F
-10	14.0	95	203.0	200	392.0
-5	23.0	100	212.0	205	401.0
0	32.0	105	221.0	210	410.0
5	41.0	110	230.0	215	419.0
10	50.0	115	239.0	220	428.0
15	59.0	120	248.0	225	437.0
20	68.0	125	257.0	230	446.0
25	77.0	130	266.0	235	455.0
30	86.0	135	275.0	240	464.0
35	95.0	140	284.0	245	473.0
40	104.0	145	293.0	250	482.0
45	113.0	150	302.0	255	491.0
50	122.0	155	311.0	260	500.0
55	131.0	160	320.0	265	509.0
60	140.0	165	329.0	270	518.0
65	149.0	170	338.0	275	527.0
70	158.0	175	347.0	280	536.0
75	167.0	180	356.0	285	545.0
80	176.0	185	365.0	290	554.0
85	185.0	190	374.0	295	563.0
90	194.0	195	383.0	300	572.0

Note: Parts are interchangeable to within $\pm 1^\circ\text{C}$ over range of 0°C to 100°C .