PTS30 Series

- -40-200°C Operating Temperature
- +- 1% @ 25C
- NTC Polyimide Sheath probe
- Beta 4036 NTC
- Fast Response Time (<5 sec TC)
- IP67
- Media – Liquid, Air, & Gas

DESCRIPTION

The PTS30 temperature sensor was specifically designed for temperature applications in a medical device and also used in heater element applications. The Polyimide Sheath encapsulated NTC allows for protection against water ingress that cause traditional temperature sensors to fail. The small .040" diameter probe allows for use in the tightest of spaces. The low cost semi-automated manufacturing process allows for a cost effective solution.

APPLICATIONS

- Heaters
- Medical Devices
- SPAS

Maximum Environmental Ratings

Operating Temperature ……..... -40°C to 200°C

Storage Temperature Range ……. -40°C to 200°C

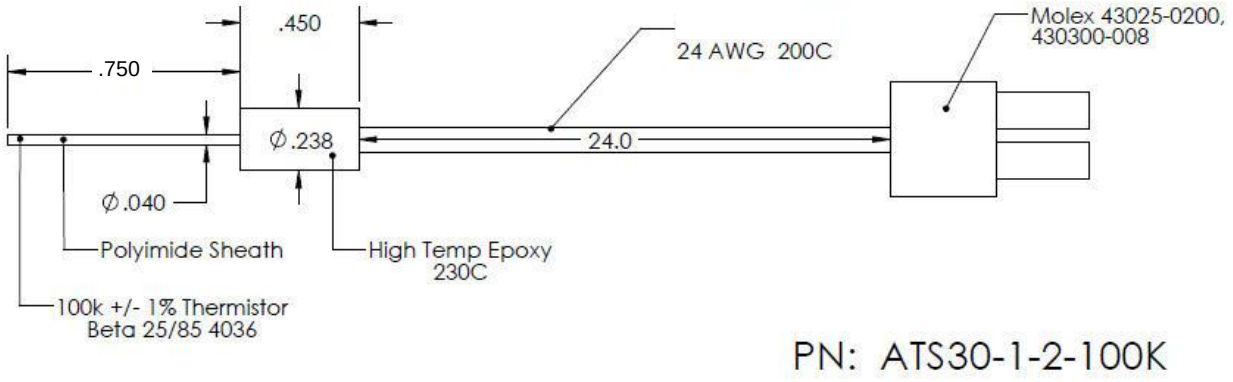
Resistance vs Temperature Chart

100Kohm NTC R vs. T

(other RT charts available)

T[−C]	R nom[Ohm]	R min[Ohm]	R max[Ohm]	deltaR/R [+-%]	deltaT [+-−C]	alpha [%K]
-55	9877500.0	8855700.0	10899000.0	10.3	1.4	7.4
-50	6864800.0	6186000.0	7543500.0	9.9	1.4	7.1
-45	4833700.0	4376800.0	5290600.0	9.5	1.4	6.9
-40	3445800.0	3134300.0	3757200.0	9.0	1.4	6.7
-35	2485200.0	2270400.0	2700000.0	8.6	1.3	6.4
-30	1812400.0	1662600.0	1962100.0	8.3	1.3	6.2
-25	1335600.0	1230100.0	1441200.0	7.9	1.3	6.0
-20	994130.0	919000.0	1069300.0	7.6	1.3	5.8
-15	747000.0	693030.0	800980.0	7.2	1.3	5.6
-10	566390.0	527260.0	605510.0	6.9	1.3	5.4
-5	433140.0	404540.0	461740.0	6.6	1.3	5.3
0	333960.0	312890.0	355030.0	6.3	1.2	5.2
5	258500.0	242920.0	274080.0	6.0	1.2	5.0
10	201660.0	190050.0	213270.0	5.8	1.2	4.9
15	158500.0	149790.0	167210.0	5.5	1.2	4.7
20	125470.0	118890.0	132050.0	5.2	1.1	4.6
25	100000.0	95000.0	105000.0	5.0	1.1	4.5
30	80223.0	76023.0	84422.0	5.2	1.2	4.3
35	64759.0	61222.0	68296.0	5.5	1.3	4.2
40	52589.0	49600.0	55578.0	5.7	1.4	4.1
45	42951.0	40418.0	45484.0	5.9	1.5	4.0
50	35272.0	33119.0	37426.0	6.1	1.6	3.9
55	29119.0	27282.0	30956.0	6.3	1.7	3.8
60	24161.0	22589.0	25732.0	6.5	1.8	3.7
65	20144.0	18796.0	21493.0	6.7	1.9	3.6
70	16874.0	15713.0	18035.0	6.9	2.0	3.5
75	14198.0	13196.0	15201.0	7.1	2.1	3.4
80	11998.0	11130.0	12867.0	7.2	2.2	3.3
85	10181.0	9427.2	10936.0	7.4	2.3	3.2
90	8674.4	8017.3	9331.5	7.6	2.4	3.2
95	7418.9	6844.9	7993.0	7.7	2.5	3.1
100	6368.8	5865.9	6871.7	7.9	2.6	3.0
105	5487.0	5045.3	5928.7	8.1	2.7	2.9
110	4743.7	4354.6	5132.7	8.2	2.9	2.9
115	4114.8	3771.3	4458.3	8.3	3.0	2.8
120	3580.8	3276.8	3884.9	8.5	3.1	2.7
125	3125.9	2856.1	3395.7	8.6	3.2	2.7
130	2737.0	2497.0	2977.0	8.8	3.3	2.6
135	2403.5	2189.6	2617.5	8.9	3.5	2.6
140	2116.7	1925.5	2307.8	9.0	3.6	2.5
145	1869.1	1697.9	2040.3	9.2	3.7	2.5
150	1654.9	1501.3	1808.6	9.3	3.9	2.4
155	1469.1	1330.9	1607.2	9.4	4.0	2.4
160	1307.3	1182.8	1431.8	9.5	4.1	2.3
165	1166.2	1053.7	1278.6	9.6	4.3	2.3
170	1042.7	941.0	1144.4	9.8	4.4	2.2
175	934.5	842.3	1026.7	9.9	4.5	2.2
180	839.3	755.6	923.0	10.0	4.7	2.1
185	755.4	679.3	831.6	10.1	4.8	2.1
190	681.4	611.9	750.8	10.2	5.0	2.0
195	615.8	552.4	679.2	10.3	5.1	2.0
200	557.6	499.7	615.6	10.4	5.3	2.0
205	505.9	452.9	559.0	10.5	5.4	1.9
210	459.9	411.2	508.6	10.6	5.6	1.9
215	418.8	374.0	463.5	10.7	5.8	1.9
220	382.0	340.8	423.2	10.8	5.9	1.8

Mechanical Dimensions (inches),



Part Number Configuration

PTS30-1-2-100K

Model

(0= flying leads, 1= Molex connector) Connection

Ohm Value @25C(10k=10kohms, 1k=1kohm)

Cable Length (1=12", 2= 24", 3= Custom)

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