

**NORTH STAR SENSORS CURVE 35**

**R/T SPECIFICATIONS**

°C	RESISTANCE RATIO Rt / R25	NTC (%/°C)	POINT MATCHED RESISTANCE MFG. TOL. ADDER (±%)	INTER- CHANGEABLE T9A CODE ±°C TOL.
-50	27.54	-5.57	8.2	2.32
-45	20.94	-5.39	7.5	2.08
-40	16.07	-5.21	6.8	1.88
-35	12.44	-5.04	6.2	1.70
-30	9.707	-4.87	5.6	1.54
-25	7.638	-4.72	5.0	1.40
-20	6.056	-4.57	4.4	1.28
-15	4.837	-4.43	3.9	1.18
-10	3.891	-4.30	3.3	1.10
-5	3.151	-4.17	2.8	1.04
0	2.568	-4.05	2.3	1.00
5	2.103	-3.94	1.8	1.00
10	1.732	-3.82	1.2	1.00
15	1.434	-3.71	0.8	1.00
20	1.195	-3.61	0.4	1.00
25	1.000	-3.50	0.0	1.00
30	0.8413	-3.41	0.4	1.00
35	0.7113	-3.31	0.8	1.00
40	0.6042	-3.22	1.2	1.00
45	0.5155	-3.13	1.7	1.00
50	0.4417	-3.05	2.2	1.00
55	0.3800	-2.97	2.6	1.00
60	0.3282	-2.89	3.0	1.00
65	0.2845	-2.82	3.3	1.00
70	0.2475	-2.75	3.6	1.00
75	0.2161	-2.68	3.9	1.06
80	0.1893	-2.62	4.3	1.14
85	0.1663	-2.55	4.6	1.24
90	0.1466	-2.49	4.9	1.36
95	0.1297	-2.43	5.2	1.50
100	0.1150	-2.37	5.5	1.66

**COLUMN HEADING DEFINITIONS:**

**RESISTANCE RATIO** – The ratio of the resistance at temperature “t” to the resistance at 25 °C. To determine the resistance of a thermistor at a temperature point other than 25 °C, multiply the given resistance ratio by the resistance at 25 °C.

**NTC** - The Negative Temperature Coefficient of resistance is the % change in resistance per change in temperature, expressed in units of -%/ °C. To determine the approximate % resistance tolerance of a thermistor at a particular temperature, multiply the given NTC value by the temperature tolerance at that temperature.

**POINT MATCHED** - For thermistors with a specified tolerance at a single temperature point, the manufacturing tolerance is used to determine the tolerance at other temperature points. Typically, thermistors are specified at 25 °C. To determine the resistance tolerance at another temperature point, add the manufacturing tolerance to the specified point matched tolerance. For example, a thermistor with a ±10 % resistance tolerance at 25 °C has a ±12.3 % tolerance at 0 °C. Point matched thermistors should typically not cycle or operate continuously above 105 °C.

**INTERCHANGEABLE T9A CODE** - An interchangeable tolerance means that a thermistor has a temperature tolerance specified over a temperature range. For example, a “T9A” code indicates a ± 1.0 °C temperature tolerance from 0 °C to 70 °C. Typically, interchangeable thermistors should not cycle or operate continuously above their specified temperature range.