

NORTH STAR SENSORS CURVE 40

R/T SPECIFICATIONS

°C	RESISTANCE RATIO Rt / R25	NTC (%/°C)	POINT MATCHED RESISTANCE MFG. TOL. ADDER (±%)	INTER- CHANGEABLE T2A CODE ±°C TOL.
-50	44.1667	-6.31	6.5	0.58
-45	32.3860	-6.10	5.7	0.53
-40	23.9829	-5.91	5.0	0.49
-35	17.9282	-5.73	4.4	0.44
-30	13.5234	-5.55	3.8	0.39
-25	10.2890	-5.38	3.3	0.34
-20	7.89305	-5.22	2.8	0.30
-15	6.10308	-5.07	2.4	0.26
-10	4.75493	-4.92	2.0	0.23
-5	3.73160	-4.78	1.7	0.21
0	2.94900	-4.64	1.4	0.20
5	2.34621	-4.51	1.1	0.20
10	1.87868	-4.38	0.8	0.20
15	1.51363	-4.26	0.5	0.20
20	1.22679	-4.14	0.3	0.20
25	1.00000	-4.03	0.0	0.20
30	0.81964	-3.92	0.3	0.20
35	0.67537	-3.82	0.5	0.20
40	0.55935	-3.72	0.7	0.20
45	0.46554	-3.62	0.9	0.20
50	0.38930	-3.53	1.2	0.20
55	0.32705	-3.44	1.4	0.20
60	0.27597	-3.35	1.6	0.20
65	0.23387	-3.27	1.8	0.20
70	0.19900	-3.19	2.0	0.20
75	0.17000	-3.11	2.1	0.22
80	0.14579	-3.04	2.3	0.24
85	0.12548	-2.96	2.5	0.28
90	0.10840	-2.89	2.7	0.31
95	0.09396	-2.82	2.8	0.36
100	0.08172	-2.76	3.0	0.40
105	0.07130	-2.70	3.1	0.45
110	0.06241	-2.63	3.3	0.49
115	0.05479	-2.57	3.4	0.54
120	0.04824	-2.52	3.6	0.59
125	0.04260	-2.46	3.7	0.65
130	0.03772	-2.41	3.8	0.70
135	0.03349	-2.35	4.0	0.77
140	0.02981	-2.30	4.1	0.83
145	0.02661	-2.25	4.3	0.92
150	0.02380	-2.20	4.4	1.00

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 ±11.4 % tolerance at 0 °C. Point matched thermistors should typically not cycle or operate continuously above 105 °C.

INTERCHANGEABLE T2A CODE - An interchangeable tolerance means that a thermistor has a temperature tolerance specified over a temperature range. For example, a “T2A” code indicates a ± 0.2 °C temperature tolerance from 0 °C to 70 °C. Typically, interchangeable thermistors should not cycle or operate continuously above their specified temperature range.