

NTC Disc Thermistors

The News: Ametherm introduces new NTC disc thermistors for high-accuracy temperature measurement.

Key Benefits:

- Wide range of resistance values at 25 °C from 4 Ω to 150 kΩ
- Precision tolerances to 1 %
- Provide a cost-effective alternative to thermocouples in precision circuits
- Diameters from 2.54 mm to 12.7 mm with profiles from 0.64 mm to 5.33 mm
- Beta from 3000 °K to 5000 °K
- High-temperature operation to + 150 °C
- Dissipation constants from 3 mW/°C to 17 mW/°C
- Thermal time constants down to 5 s
- RoHS compliant
- Available in insulated and non-insulated configurations

Target Applications:

- Temperature measurement, compensation, and control in fan motor controls, fluid levels, and temperature sensors in a wide range of end products

Key Specifications:

Part number	Resistance @ 25 °C (Ω)	R-T curve	Diameter (mm)	Profile (mm)	Dissipation constant (mW/°C)	Thermal time constant (s)
5DA4R0K	4	A	12.7	1.65	14	60
5DA5R0K	5	A	12.7	2.0	15	70
2DA100K	10	A	5.1	0.64	7	18
3DA100K	10	A	7.6	1.5	8	48
5DA100K	10	A	12.7	3.8	17	120
3DA150K	15	A	7.6	2.29	8	55
2DA200K	20	A	5.1	1.27	7	20
1DA300K	30	A	2.5	0.51	3	5
2DA300K	30	A	5.1	1.91	7	25
1DA500K	50	A	2.5	0.76	3	6
2DA500K	50	A	5.1	3.05	7	30
3DB500K	50	B	7.6	0.64	8	35
4DB500K	50	B	10.2	1.14	9	50
1DA101K	100	A	2.5	1.5	3	10
2DB101K	100	B	5.1	0.64	7	18
2DB151K	150	B	5.1	0.89	7	19
2DB201K	200	B	5.1	1.27	7	20
2DB301K	300	B	5.1	1.78	7	25
3DB301K	300	B	7.6	3.8	9	75

1DB501K	500	B	2.5	0.76	3	6
2DB501K	500	B	5.1	3.05	7	30
4DC501K	500	C	10.2	1.78	9	65
1DB102K	1,000	B	2.5	1.5	3	10
2DC102K	1,000	C	5.1	0.89	7	18
3DC102K	1,000	C	7.6	2.0	8	48
1DB202K	2,000	B	2.5	3.05	4	14
2DC202K	2,000	C	5.1	1.78	7	25
2DC302K	3,000	C	5.1	2.54	7	30
3DC302K	3,000	C	7.6	5.33	10	90
2DC402K	4,000	C	5.1	3.18	7	32
1DC502K	5,000	C	2.5	1.02	3	8
2DC502K	5,000	C	5.1	4.06	8	36
1DC103K	10,000	C	2.5	2.0	4	12
2DE103K	10,000	E	5.1	1.02	7	17
3DE103K	10,000	E	7.6	2.16	8	48
2DE203K	20,000	E	5.1	1.91	7	20
2DE303K	30,000	E	5.1	2.92	7	25
1DE503K	50,000	E	2.5	1.27	3	6
2DE503K	50,000	E	5.1	4.83	7	30
1DE104K	100,000	E	2.5	2.41	3	9

The Context: Recently acquired from Measurement Specialties (formerly RTI Electronics), Ametherm's NTC disc thermistors feature a wide range of resistance values, with precision tolerances to 1 %. The devices feature dissipation constants from 3 mw/°C to 17 mw/°C and thermal time constants down to 5 s. Providing designers with a cost-effective alternative to thermocouples in precision circuits, the NTC disc thermistors deliver high stability and maximum sensitivity for temperature measurement, compensation, and control in a wide range of applications.

Availability: Offered through Sager, Dexter Magnetic Technologies, and PUI, samples and production quantities of the NTC disc thermistors are available now, with factory lead times of six weeks.

Datasheets:

Download this New Product Announcement as a PDF:

<http://www.ametherm.com/download/ntc-disk-thermistor-npa-june-2014.pdf>

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