



CWF Precision NTC Thermistor Probes are designed to facilitate installation in a wide variety of applications. PVC leads are applied to a precision, high-reliability NTC thermistor, insulated with heat conductive water resistant materials and potted into probe bodies. **Features:** • Small size and fast response, temperature coefficient of resistance can reach - (2% - 5%/°C) • Long-term stability and reliability (yearly drift of $\pm 1\%$) • Excellent tolerance and interchangeability (the accuracy of R and B value can be $\pm 1\%$) • Double layer packaging provides excellent insulation and high strength and impact resistance • Time Constant of ≤ 15 - 70S

MF11 NTC Thermistor is designed for temperature measurement and the temperature compensation of measurement instruments and electronic circuits. **Features:** • Broad range of resistance • Standard tolerances: $\pm 5\%$ and $\pm 10\%$

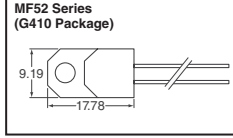
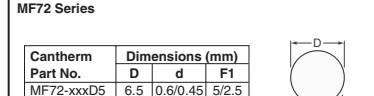
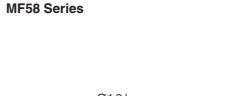
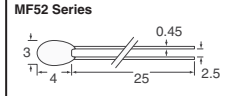
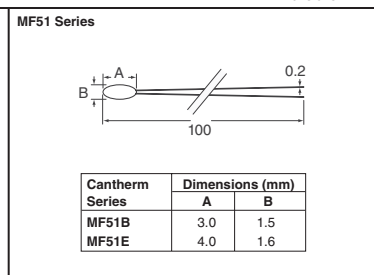
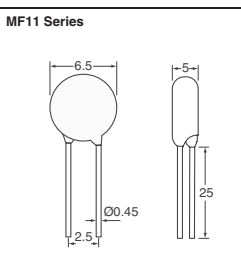
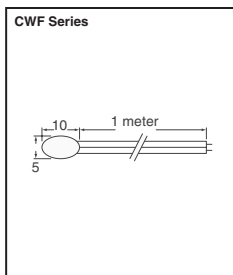
• Measuring power $\leq 0.5mW$ • Dissipation Constant $\leq 0.0mW/°C$ • Time Constant of ≤ 30 seconds • Rated Power: 0.5W • Good level of tolerance and interchangeability

MF51 Precision Glass Encapsulated NTC Thermistor is a small chip thermistor encased in glass with bare radial copper leads. **Benefits:** • High precision • Fast response • Reliable stability • No aging effect • Improved moisture resistance

MF52 NTC Thermistor is ethoxylamine resin coated. The small size is made possible by new materials and manufacturing methods which provide the benefit of close tolerances and fast response. **Features:** • Small Size and fast response • Long-term Stability and Reliability • Excellent tolerance and interchangeability • Time Constant of ≤ 7 seconds in still air • UL Listed E240991

MF58 Glass Shell Precision NTC Thermistors are equipped with tinned axial leads and then wrapped with purified glass. **Features:** • Usable in high temperature and high moisture environments • Suitable for automatic insertion on thru-hole PCBs • Rapid response • High Sensitivity • Dissipation factor: $\leq 2mW/°C$ (in still air) • Operating temperature range: $-55°C - 200°C$ • Rated power: $\leq 50mW$

MF72 Power NTC Thermistors provide inrush current suppression for sensitive electronics. Connecting a MF72 in series with the power source will limit the current surges typically created at turn on. Once the circuit is energized the resistance of the MF72 will decrease rapidly to a very low value, power consumption can be ignored and there will be no effect on normal operating current. **Features:** • Small size and fast response • High power handling capability • Fast response to surge current • High material constant (B value) • Low residual resistance • Long-term Stability and Reliability • UL 1434 Listed E241319



Cantherm Part No.	Dimensions (mm)		
	D	d	F1
MF72-xxxD5	6.5	0.6/0.45	5/2.5
MF72-xxxD9	8.5	0.6	5
MF72-xxxD10	10.5	0.8/0.6	7.5/5
MF72-xxxD11	12.5	0.8/0.6	7.5/5
MF72-xxxD13	14.5	0.8	7.5
MF72-xxxD15	16.5	0.8	10/7.5
MF72-xxxD20	21.5	1.0	10/7.5
MF72-xxxD25	26.5	1.0	10

Resistance Ω	Tolerance \pm	Digi-Key Part No.	Pricing			Cantherm Part No.
			1	10	50	
CWF Series						
10K	1%	317-1310-ND	3.67	32.17	107.08	CWF1B103F3380
100K		317-1311-ND	3.67	32.17	107.08	CWF1B104F3950
10K	2%	317-1312-ND	3.22	28.15	93.71	CWF1B103G3380
100K		317-1313-ND	3.22	28.15	93.71	CWF1B104G3950
10K	3%	317-1314-ND	2.76	24.14	80.35	CWF1B103H3380
100K		317-1315-ND	2.76	24.14	80.35	CWF1B104H3950
10K	5%	317-1316-ND	1.84	16.11	53.62	CWF1B103J3380
100K		317-1317-ND	1.84	16.11	53.62	CWF1B104J3950
10K		317-1382-ND	4.81	42.08	140.06	CWF3AA103G3380
100K		317-1383-ND	4.81	42.08	140.06	CWF3AA104G4150
50K	2%	317-1384-ND	4.81	42.08	140.06	CWF3AA503G3950
10K		317-1385-ND	4.81	42.08	140.06	CWF4B103G3380
MF11 Series						
20		317-1267-ND	.46	4.01	13.37	MF11-0000205
40		317-1268-ND	.46	4.01	13.37	MF11-0000405
75	5%	317-1269-ND	.46	4.01	13.37	MF11-0000755
100		317-1270-ND	.46	4.01	13.37	MF11-0001005
170		317-1271-ND	.46	4.01	13.37	MF11-0001705
250		317-1272-ND	.46	4.01	13.37	MF11-0002505
300		317-1273-ND	.46	4.01	13.37	MF11-0003005
350	5%	317-1274-ND	.46	4.01	13.37	MF11-0003505
600		317-1275-ND	.46	4.01	13.37	MF11-0006005
800		317-1276-ND	.46	4.01	13.37	MF11-0008005
1000		317-1277-ND	.46	4.01	13.37	MF11-0010005
1400		317-1278-ND	.46	4.01	13.37	MF11-0014005
2000	5%	317-1279-ND	.46	4.01	13.37	MF11-0020005
3300		317-1280-ND	.46	4.01	13.37	MF11-0033005
4600		317-1281-ND	.46	4.01	13.37	MF11-0046005
8000		317-1282-ND	.46	4.01	13.37	MF11-0080005
10K	5%	317-1283-ND	.46	4.01	13.37	MF11-0100005
15K		317-1284-ND	.46	4.01	13.37	MF11-0150005
33K		317-1285-ND	.46	4.01	13.37	MF11-0330005
20		317-1286-ND	.23	2.01	6.68	MF11-0002010
40		317-1287-ND	.23	2.01	6.68	MF11-0004010
75	10%	317-1288-ND	.23	2.01	6.68	MF11-0007510
100		317-1289-ND	.23	2.01	6.68	MF11-0010010
170		317-1290-ND	.23	2.01	6.68	MF11-0017010
250		317-1291-ND	.23	2.01	6.68	MF11-0025010
300		317-1292-ND	.23	2.01	6.68	MF11-0030010
350	10%	317-1293-ND	.23	2.01	6.68	MF11-0035010
600		317-1294-ND	.23	2.01	6.68	MF11-0060010
800		317-1295-ND	.23	2.01	6.68	MF11-0080010
1000		317-1296-ND	.23	2.01	6.68	MF11-0100010
1400		317-1297-ND	.23	2.01	6.68	MF11-0140010
2000	10%	317-1298-ND	.23	2.01	6.68	MF11-0200010
3300		317-1299-ND	.23	2.01	6.68	MF11-0330010
4600		317-1300-ND	.23	2.01	6.68	MF11-0460010
8000		317-1301-ND	.23	2.01	6.68	MF11-0800010
10000		317-1302-ND	.23	2.01	6.68	MF11-1000010
15000	10%	317-1303-ND	.23	2.01	6.68	MF11-1500010
33000		317-1304-ND	.23	2.01	6.68	MF11-3300010
MF51B Series						
10K		317-1370-ND	3.21	28.05	93.38	MF51B103F3380
100K	1%	317-1371-ND	3.21	28.05	93.38	MF51B104F3950
50K		317-1372-ND	3.21	28.05	93.38	MF51B503F3950
MF51E Series						
10K	0.5%	317-1305-ND	1.44	12.55	41.78	MF51E103E3950
10K		317-1306-ND	1.44	12.55	41.78	MF51E103F3950
10K	1%	317-1309-ND	1.73	15.09	50.24	MF51E103F3950C
22.5K		317-1308-ND	1.73	15.09	50.24	MF51E225F3950C
10K	2%	317-1307-ND	1.44	12.55	41.78	MF51E103G3950
MF52A Series						
10K		317-1355-ND	1.15	10.04	33.41	MF52A103F3380
100K	1%	317-1356-ND	1.15	10.04	33.41	MF52A104F4150

Resistance Ω	Tolerance \pm	Digi-Key Part No.	Pricing			Cantherm Part No.
			1	10	50	
10K		317-1357-ND	.69	6.05	20.13	MF52A103G3380
100K	2%	317-1358-ND	.69	6.05	20.13	MF52A104G4150
2.7K		317-1359-ND	.44	3.81	12.69	MF52A27H3470
4.7K		317-1360-ND	.44	3.81	12.69	MF52A27H3470
47K	3%	317-1361-ND	.44	3.81	12.69	MF52A47H3950
100K		317-1362-ND	.44	3.81	12.69	MF52A104H4150
1K		317-1251-ND	.23	1.95	6.70	MF52A102J3470
1.5K		317-1252-ND	.28	2.42	8.04	MF52A152J3470
2K	5%	317-1253-ND	.28	2.42	8.04	MF52A202J3470
2.2K		317-1254-ND	.28	2.42	8.04	MF52A222J3470
3.3K		317-1255-ND	.23	2.01	6.70	MF52A332J3470
4.7K		317-1256-ND	.28	2.42	8.04	MF52A272J3470
6.8K		317-1257-ND	.28	2.42	8.04	MF52A682J3470
10K	5%	317-1258-ND	.28	2.42	8.04	MF52A103J3470
15K		317-1259-ND	.28	2.42	8.04	MF52A153J3470
22K		317-1280-ND	.28	2.42	8.04	MF52A223J3470
33K		317-1363-ND	.28	2.42	8.04	MF52A333J3950
47K		317-1364-ND	.28	2.42	8.04	MF52A473J3950
68K	5%	317-1263-ND	.28	2.42	8.04	MF52A683J3950
100K		317-1264-ND	.28	2.42	8.04	MF52A104J3950
220K		317-1265-ND	.28	2.42	8.04	MF52A224J4150
MF52C Series						
10K		317-1376-ND	1.43	12.50	41.61	MF52C1103F3380
100K	1%	317-1377-ND	1.43	12.50	41.61	MF52C1104F4150
50K		317-1378-ND	1.43	12.50	41.61	MF52C1503F3950
10K		317-1406-ND	4.81	42.08	140.06	MF52C103F3380-G410
100K	1%	317-1407-ND	4.81	42.08	140.06	MF52C104F4150-G410
50K		317-1408-ND	4.81	42.08	140.06	MF52C503F3950-G410
MF52F Series						
10K		317-1373-ND	1.39	12.20	40.60	MF52F103F3380
100K	1%	317-1374-ND	1.39	12.20	40.60	MF52F104F4150
50K		317-1375-ND	1.39	12.20	40.60	MF52F503F3950
MF58 Series						
10K		317-1379-ND	1.15	10.06	33.49	MF58103F3380
100K	1%	317-1380-ND	1.15	10.06	33.49	MF58104F3950
50K		317-1381-ND	1.15	10.06	33.49	MF58503F3950
MF72 Series						
5		317-1144-ND	.31	2.74	9.13	MF72-00505
10		317-1145-ND	.26	2.29	7.62	MF72-01005
60	20%	317-1146-ND	.31	2.74	9.13	MF72-06005
200		317-1147-ND	.31	2.74	9.13	MF72-20005
5		317-1148-ND	.31	2.74	9.13	MF72-00507
8		317-1149-ND	.31	2.74	9.13	MF72-00807
10		317-1150-ND	.26	2.29	7.62	MF72-01007
12		317-1151-ND	.31	2.74	9.13	MF72-01207
16		317-1152-ND	.31	2.74	9.13	MF72-01607
22		317-1153-ND	.31	2.74	9.13	MF72-02207
33		317-1154-ND	.31	2.74	9.13	MF72-03307
200		317-1155-ND	.31	2.74	9.13	MF72-20007
3	20%	317-1156-ND	.35	3.03	10.06	MF72-00309
4		317-1157-ND	.35	3.03	10.06	MF72-00409
5		317-1158-ND	.35	3.03	10.06	MF72-00509
6		317-1159-ND	.35	3.03	10.06	MF72-00609
8		317-1160-ND	.35	3.03	10.06	MF72-00809
10	20%	317-1161-ND	.29	2.52	8.37	MF72-01009
12		317-1162-ND	.35	3.03	10.06	MF72-01209
16		317-1163-ND	.35	3.03	10.06	MF72-01609
20		317-1164-ND	.35	3.03	10.06	MF72-02009
22		317-1165-ND				