

G10K3694 Radial Glass Thermistor



- Glass hermetic encapsulation with high resistance to humid environments
- Wide operating temperature range
- High stability and performance in harsh environmental conditions
- Fast response time
- RoHS Compliant

DESCRIPTION

The NTC Chip hermetically sealed in a glass encapsulation package

FEATURES

- Hermetically sealed glass package
- Proven Stability and Reliability
- Available in $\pm 1\%$, $\pm 2\%$, $\pm 3\%$, $\pm 5\%$ and $\pm 10\%$ tolerance @ $+25^\circ\text{C}$
- Fast time response
- Low cost
- Temperature range -40°C to $+250^\circ\text{C}$

APPLICATIONS

- Air conditioning systems
- Refrigeration control
- Assembly into probes for a wide variety of applications
- In environments where thermal shock and humidity are present
- Hot water boiler systems
- Sensor for engine temperature control

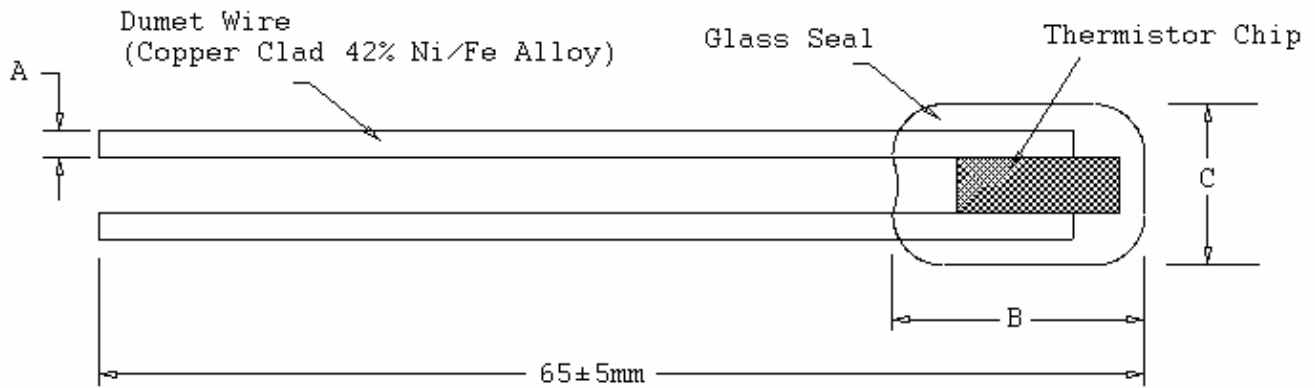
PERFORMANCE SPECS

Parameters	Units	Value
Resistance @ $+25^\circ\text{C}$	Ohms	10,000
Resistance tolerance @ 25°C	%	± 1
Beta Value 25/85	K	3694
Tolerance on Beta Value 25/85	%	± 2
Series A Dissipation Constant in still air	mW/ $^\circ\text{C}$	1.3
Series B Dissipation Constant in still air	mW/ $^\circ\text{C}$	0.8
Series C Dissipation Constant in still air	mW/ $^\circ\text{C}$	0.5
Series A Time response in Liquids	Seconds	0.9~1.1
Series B Time response in Liquids	Seconds	0.3~0.4
Series C Time response in Liquids	Seconds	0.18~0.2

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Reliability Tests	Standard	Test Condition	Delta R
Storage in Dry Heat	IEC 60068-2-2	Storage temperature: +250°C Duration: 1000 hours	< 3%
Storage in Damp Heat	IEC 60068-2-3	Temperature of air is 50°C & RH 95% Duration: 56 days.	< 2%
Rapid Temperature Cycling	IEC 60068-2-14	Lower Test Temperature -55°C Upper Test Temperature +200°C Number of Cycles 1000	< 2%

MECHANICAL DETAILS



Dimensions			
	A	B	C
Series A Thermistor	0.3mm	4mm Max	2.5mm Max
Series B Thermistor	0.2mm	3mm Max	1.5mm Max
Series C Thermistor	0.15mm	2mm Max	0.9mm Max

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RESISTANCE V TEMPERATURE TABLE

Temp. °C	KOhms	Temp. °C	KOhms	Temp. °C	KOhms	Temp. °C	KOhms
-40	261.1	2	27.33	44	4.802	86	1.218
-39	245.6	3	26.08	45	4.631	87	1.184
-38	231.1	4	24.9	46	4.466	88	1.15
-37	217.5	5	23.78	47	4.308	89	1.117
-36	204.8	6	22.71	48	4.156	90	1.086
-35	193	7	21.7	49	4.011	91	1.055
-34	181.9	8	20.74	50	3.871	92	1.026
-33	171.5	9	19.83	51	3.737	93	0.997
-32	161.7	10	18.96	52	3.608	94	0.9694
-31	152.6	11	18.13	53	3.485	95	0.9427
-30	144	12	17.35	54	3.366	96	0.9169
-29	136	13	16.6	55	3.252	97	0.8919
-28	128.5	14	15.89	56	3.142	98	0.8677
-27	121.4	15	15.22	57	3.037	99	0.8442
-26	114.8	16	14.58	58	2.936	100	0.8215
-25	108.6	17	13.96	59	2.838	101	0.7996
-24	102.7	18	13.38	60	2.745	102	0.7783
-23	97.19	19	12.83	61	2.655	103	0.7577
-22	92.01	20	12.3	62	2.568	104	0.7377
-21	87.14	21	11.79	63	2.485	105	0.7183
-20	82.55	22	11.31	64	2.405	106	0.6996
-19	78.24	23	10.85	65	2.327	107	0.6814
-18	74.17	24	10.42	66	2.253	108	0.6638
-17	70.34	25	10	67	2.181	109	0.6467
-16	66.73	26	9.601	68	2.112	110	0.6302
-15	63.33	27	9.221	69	2.046	111	0.6141
-14	60.12	28	8.858	70	1.982	112	0.5985
-13	57.1	29	8.511	71	1.92	113	0.5834
-12	54.24	30	8.180	72	1.861	114	0.5688
-11	51.54	31	7.863	73	1.804	115	0.5545
-10	49	32	7.561	74	1.748	116	0.5407
-9	46.59	33	7.271	75	1.695	117	0.5273
-8	44.32	34	6.995	76	1.644	118	0.5143
-7	42.17	35	6.730	77	1.594	119	0.5017
-6	40.13	36	6.477	78	1.546	120	0.4895
-5	38.21	37	6.234	79	1.5	121	0.4776
-4	36.39	38	6.002	80	1.455	122	0.466
-3	34.67	39	5.780	81	1.412	123	0.4548
-2	33.04	40	5.568	82	1.371	124	0.4439
-1	31.49	41	5.364	83	1.331	125	0.4333
0	30.03	42	5.169	84	1.292	126	0.423
1	28.64	43	4.982	85	1.255	127	0.413

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128	0.4033
129	0.3938
130	0.3847
131	0.3757
132	0.3671
133	0.3586
134	0.3504
135	0.3424
136	0.3347
137	0.3271
138	0.3198
139	0.3126
140	0.3056
141	0.2989
142	0.2923
143	0.2858
144	0.2796
145	0.2735
146	0.2676
147	0.2618
148	0.2562
149	0.2507
150	0.2453
151	0.2401
152	0.2351
153	0.2301
154	0.2253
155	0.2206
156	0.216
157	0.2116
158	0.2072

159	0.203
160	0.1988
161	0.1948
162	0.1908
163	0.187
164	0.1833
165	0.1796
166	0.176
167	0.1725
168	0.1691
169	0.1658
170	0.1626
171	0.1594
172	0.1563
173	0.1533
174	0.1504
175	0.1475
176	0.1447
177	0.1419
178	0.1393
179	0.1366
180	0.1341
181	0.1316
182	0.1291
183	0.1267
184	0.1244
185	0.1221
186	0.1199
187	0.1177
188	0.1156
189	0.1135

190	0.1115
191	0.1095
192	0.1075
193	0.1056
194	0.1037
195	0.1019
196	0.1001
197	0.0984
198	0.0966
199	0.095
200	0.0933
201	0.0917
202	0.0902
203	0.0886
204	0.0871
205	0.0856
206	0.0842
207	0.0828
208	0.0814
209	0.08
210	0.0787
211	0.0774
212	0.0761
213	0.0749
214	0.0737
215	0.0725
216	0.0713
217	0.0701
218	0.069
219	0.0679
220	0.0668

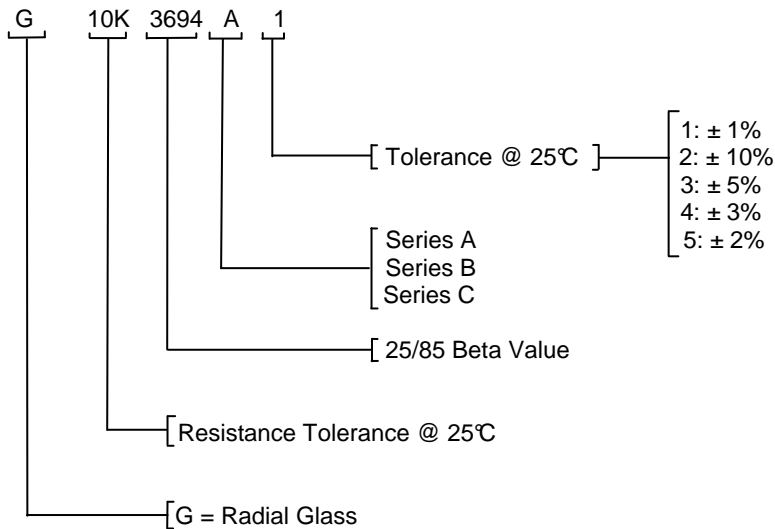
221	0.0658
222	0.0647
223	0.0637
224	0.0627
225	0.0617
226	0.0607
227	0.0598
228	0.0589
229	0.058
230	0.0571
231	0.0562
232	0.0554
233	0.0545
234	0.0537
235	0.0529
236	0.0521
237	0.0513
238	0.0505
239	0.0498
240	0.0491
241	0.0483
242	0.0476
243	0.0469
244	0.0462
245	0.0456
246	0.0449
247	0.0443
248	0.0436
249	0.043
250	0.0424

G10K3694 Radial Glass Thermistor

ORDERING INFORMATION

Part Number	Description	Ω @25°C	MOQ
G10K3694A1	Radial Glass Thermistor Series A	10,000	10,000*
G10K3694B1	Radial Glass Thermistor Series B	10,000	10,000*
G10K3694C1	Radial Glass Thermistor Series C	10,000	10,000*

* For quantities less than Minimum Order Quantity – Contact Distribution



NORTH AMERICA

Measurement Specialties, Inc.
910 Turnpike Road
Shrewsbury, MA 01545
Tel: 1-508-842-0516
Fax: 1-508-842-0342

Sales email:
temperature.sales.amer@meas-spec.com

EUROPE

Measurement Specialties, Inc
Ballybrit Business Park
Galway Ireland
Tel: +353-91-753238
Fax: +353-91-770789

Sales email:
temperature.sales.emea@meas-spec.com

ASIA

Measurement Specialties (China) Ltd.
No. 26 Langshan Road
Shenzhen High-Tech Park (North)
Nanshan District, Shenzhen 51807
China
Tel: +86 (0) 755 33305088
Fax: +86 (0) 755 33305099

Sales email:
temperature.sales.asia@meas-spec.com

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