

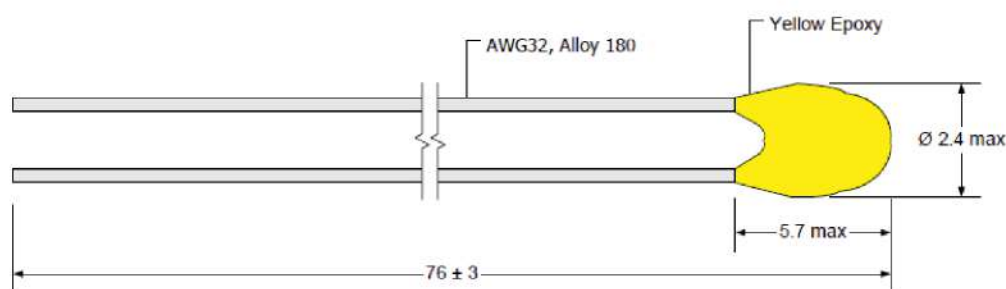


- ▶ **High sensitivity**
- ▶ **Epoxy encapsulated**
- ▶ **Temperature range -40 to 150°C**
- ▶ **RoHS compliant**

The ENTC-EB-10k3977-02 is specifically designed for sensing small changes in temperature for mid-range temperature applications. Due to its high sensitivity and high resistance (10kOhm @25°C) it is ideal for tight tolerance instrumentation in non-condensing moisture environments.

Specifications	
Input Parameters	
Element	NTC Thermistor
Wire material	76mm bare leads, 32 AWG solid alloy 180
Performance characteristics	
Resistance at +25°C	10000Ω
Resistance tolerance from 0 to 70°C	±0.2°C
Beta value 25/85 constant	3977k ± 0.5%
Dissipation factor (in air)	~ 2mW/°C
Thermal time constant (in air)	~ 15 sec
Operating temperature range	- 40 to 150°C

Dimensions



Ordering information

Order code: ENTC-EB-10k3977-02

Resistance versus temperature table for 10K3977-02

$R(25) = 10000 \text{ Ohms}$ $B(25/85) = 3977K \pm 0.5\%$

Temp. °C	KΩ	Temp. °C	KΩ	Temp. °C	KΩ	Temp. °C	KΩ	Temp. °C	KΩ
-40	336.478	1	31.030	42	4.916	82	1.177	123	0.360
-39	314.902	2	29.498	43	4.725	83	1.140	133	0.279
-38	294.849	3	28.051	44	4.543	84	1.104	134	0.272
-37	276.194	4	26.683	45	4.368	85	1.070	135	0.266
-36	258.836	5	25.391	46	4.201	86	1.037	136	0.259
-35	242.682	6	24.170	47	4.041	87	1.005	137	0.253
-34	227.633	7	23.015	48	3.888	88	0.974	138	0.247
-33	213.610	8	21.918	49	3.742	89	0.944	139	0.241
-32	200.537	9	20.884	50	3.602	90	0.916	140	0.235
-31	188.348	10	19.902	51	3.468	91	0.888	141	0.230
-30	176.976	11	18.970	51	3.468	92	0.861	142	0.224
-29	166.354	12	18.091	52	3.340	93	0.835	143	0.219
-28	156.443	13	17.256	53	3.217	94	0.810	144	0.214
-27	147.176	14	16.461	54	3.099	95	0.786	145	0.209
-26	138.517	15	15.710	55	2.986	96	0.763	146	0.204
-25	130.422	16	15.000	56	2.878	97	0.741	147	0.199
-24	122.846	17	14.325	57	2.774	98	0.720	148	0.195
-23	115.759	18	13.681	58	2.675	99	0.698	149	0.190
-22	109.121	19	13.073	59	2.579	100	0.679	150	0.186
-21	102.904	20	12.491	60	2.488	101	0.659		
-20	97.083	21	11.940	61	2.400	102	0.640		
-19	91.621	22	11.421	62	2.316	103	0.622		
-18	86.501	23	10.924	63	2.235	104	0.605		
-17	81.696	24	10.448	64	2.157	105	0.587		
-16	77.189	25	10.000	65	2.083	106	0.571		
-15	72.957	26	9.574	66	2.011	107	0.556		
-14	68.983	27	9.165	67	1.942	108	0.540		
-13	65.244	28	8.779	68	1.876	109	0.525		
-12	61.736	29	8.406	69	1.813	110	0.511		
-11	58.433	30	8.055	70	1.752	111	0.497		
-10	55.329	31	7.722	71	1.693	112	0.483		
-9	52.407	32	7.402	72	1.637	113	0.470		
-8	49.658	33	7.096	73	1.582	114	0.457		
-7	47.065	34	6.807	74	1.530	115	0.445		
-6	44.627	35	6.532	75	1.480	116	0.433		
-5	42.327	36	6.266	76	1.432	117	0.422		
-4	40.160	37	6.017	77	1.385	118	0.411		
-3	38.113	38	5.777	78	1.340	119	0.400		
-2	36.186	39	5.549	79	1.297	120	0.390		
-1	34.369	40	5.324	80	1.255	121	0.379		
0	32.650	41	5.115	81	1.215	122	0.370		