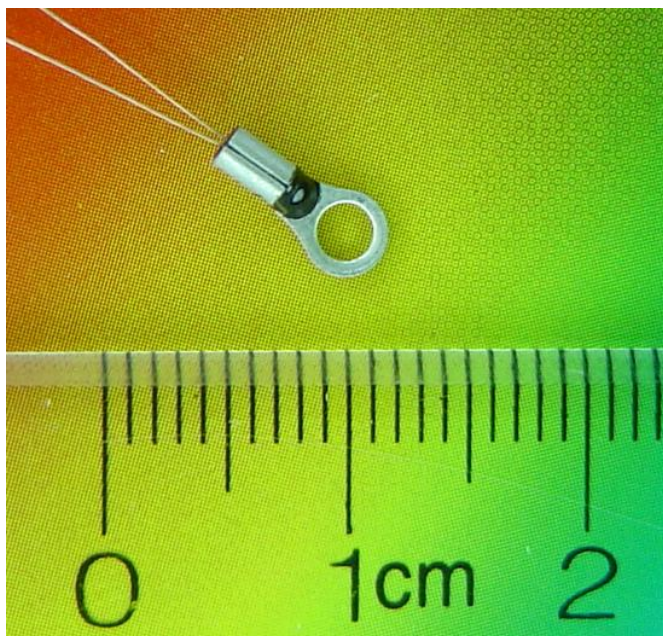




MAIN FEATURES

Glass Encapsulated for Long Term Stability & Reliability

High Stability: $<0.1^{\circ}\text{C}/\text{Y}$

High Resistance Accuracy: 1%

Wide Temp. Range: -55°C to 250°C

Packaged in Extra Small Ring Lug

APPLICATIONS

Temperature sensing for laser diodes, optical components, etc.

DESCRIPTION

The ATH10KL2 is a thermistor assembly with a glass encapsulated thermistor packaged in an extra compact ring lug. Comparing with conventional assemblies containing epoxy encapsulated thermistors, ATH10KL2 presents higher long term stability, higher reliability and wider temperature range. In addition, it has a small size and short response time.

The ATH10KL2 can be used to measure the temperatures of laser diodes, optical components, etc., with high accuracy and long term stability.

SPECIFICATIONS

Nominal Resistance @ 25°C : $10\text{K} \pm 1\%$

B Value @ $25^{\circ}\text{C}/85^{\circ}\text{C}$: $3480\text{K} \pm 1\%$

B Value @ $0^{\circ}\text{C}/100^{\circ}\text{C}$: $3450\text{K} \pm 1\%$

B Value @ $25^{\circ}\text{C}/100^{\circ}\text{C}$: $3497\text{K} \pm 1\%$

Ring Lug Length: $8.1\text{mm} \pm 0.1\text{mm}$

Ring Lug Width: $3.6 \pm 0.1\text{mm}$

Ring Hole Diameter: $2.4 \pm 0.1\text{mm}$

Lead Diameter: 0.15mm
Lead Length: $60 \pm 3\text{mm}$

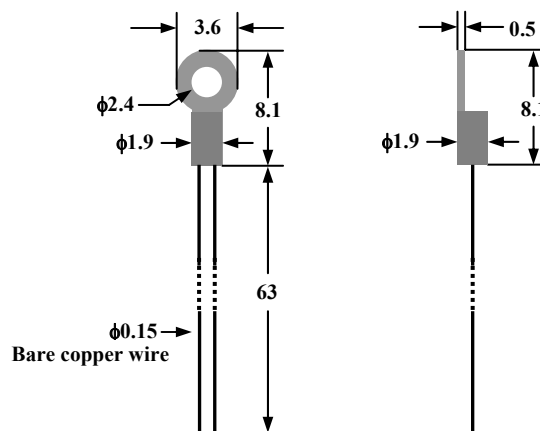


Figure 1 The Front and Side Views of ATH10KL2

APPLICATION

Use #2 imperial or M2.5 metric screw to mount the thermistor assembly onto a smooth metal surface of the object for which the temperature needs to be measured.

The thermistor lead wires are made of plain copper, make sure that they do not touch each other, nor any other electrically conductive objects.

For high precision applications, use a cover which is made of thermal isolation material to cover the thermistor area, see Figure 2. In this way, the air flow will not affect the temperature sensing accuracy.

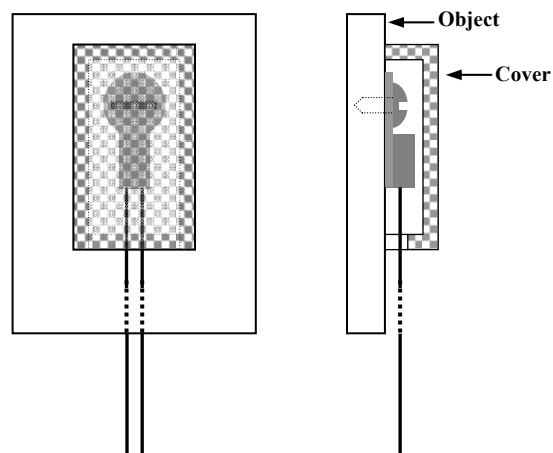


Figure 2 Using an Insulation Cover to Improve Accuracy

ORDERING INFORMATION

Part number: ATH10KL2

Quantity	1 - 9	10 - 49	50 - 249	≥ 250
Price	\$9.6	\$8.2	\$6.4	\$4.8



Resistance Temperature Characteristics

T [°C]	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR/R _N [±%]
-55	519911	491950	547873	5,4
-50	379894	360878	398909	5,0
-45	280697	267644	293750	4,7
-40	209603	200566	218639	4,3
-35	158088	151784	164393	4,0
-30	120372	115944	124800	3,7
-25	92484	89355	95612	3,4
-20	71668	69447	73889	3,1
-15	55993	54410	57576	2,8
-10	44087	42955	45218	2,6
-5	34971	34161	35780	2,3
0	27936	27356	28516	2,1
5	22468	22054	22882	1,8
10	18187	17892	18482	1,6
15	14813	14605	15021	1,4
20	12136	11991	12282	1,2
25	10000	9900	10100	1,0
30	8284	8186	8383	1,2
35	6899	6804	6994	1,4
40	5774	5684	5864	1,6
45	4856	4772	4940	1,7
50	4103	4024	4181	1,9
55	3482	3409	3554	2,1
60	2967	2901	3034	2,2
65	2539	2479	2600	2,4
70	2182	2126	2237	2,5
75	1882	1831	1932	2,7
80	1629	1583	1675	2,8
85	1415	1373	1457	3,0
90	1234	1195	1272	3,1
95	1079	1044	1114	3,2
100	946,6	914,6	978,6	3,4
105	833,1	803,9	862,3	3,5
110	735,5	708,8	762,1	3,6
115	651,1	626,7	675,5	3,7
120	578,1	555,8	600,4	3,9

T [°C]	R _{nom} [Ω]	R _{min} [Ω]	R _{max} [Ω]	ΔR/R _N [±%]
125	514,6	494,2	535,1	4,0
130	459,4	440,6	478,1	4,1
135	411,1	393,8	428,3	4,2
140	368,8	352,9	384,6	4,3
145	331,6	317,0	346,2	4,4
150	298,9	285,4	312,3	4,5
155	270,0	257,5	282,4	4,6
160	244,4	232,9	255,9	4,7
165	221,7	211,1	232,4	4,8
170	201,6	191,7	211,5	4,9
175	183,6	174,5	192,8	5,0
180	167,6	159,1	176,1	5,1
185	153,3	145,4	161,2	5,2
190	140,4	133,1	147,8	5,3
195	128,9	122,0	135,8	5,3
200	118,5	112,1	124,9	5,4
205	109,1	103,1	115,1	5,5
210	100,7	95,05	106,3	5,6
215	93,01	87,76	98,27	5,7
220	86,08	81,14	91,01	5,7
225	79,78	75,15	84,41	5,8
230	74,05	69,70	78,40	5,9
235	68,83	64,74	72,93	5,9
240	64,08	60,22	67,93	6,0
245	59,73	56,09	63,36	6,1
250	55,75	52,32	59,18	6,2

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