

KTY84 series positive temperature coefficient silicon temperature sensor

KTY84-13019

product description

- Material: Silicon
- Process: film
- Signal output: analog signal
- Temperature resistance: $-40\text{ }^{\circ}\text{C}$ - $+190\text{ }^{\circ}\text{C}$
- Material physical properties: semiconductor
- Wire: Teflon high temperature insulated wire
- Wire diameter: 22AWG (can be customized)
- Product line length: 60cm (can be customized)



Features

- Small size and fast response
- Positive temperature coefficient
- Long-term stability
- Temperature range from -40°C to $+190^{\circ}\text{C}$
- Nickel-plated lead
- Features almost linear changes
- High precision and high reliability

Applications

- New Energy Motor
- Golf cart
- Electric carrier, etc.
- Electric Bus
- Charging pile

Product parameters

Serial number	Electrical parameters	symbol	Test Conditions	Minimum value	standard value	Maximum	unit
1	25 ° C resistance value	R_{25}	constant temperature 25±0.05°C	577	603	629	Ω
2	100 °C resistance value	R_{100}	constant temperature 100±0.05°C	970	1000	1030	Ω
3	Dissipation coefficient	δ	In still air	1.5	/	/	mW /°C
4	Thermal time constant	τ	In still air	/	/	7	s
5	Insulation resistance	/	DC=100V	100	/	/	M Ω
6	Maximum operating current	I_{max}	/	/	/	8	mA
7	Rated operating current	I_N	/	/	5	/	mA
8	rated power	P_{max}	/	/	/	50	mW
9	Operating temperature	T_A	-40 — +190°C				

Note: R-T table see attachment (1)

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R-T curve parameter table - accessories (1)

Ambient temperature		Temperature coefficient (K%)	KTY84-13019			
Celsius (°C)	Fahrenheit (°F)		Resistance (Ω)			Temperature error (K)
			Min	Typ	Max	
-40	-40	0.88	340	359	380	±6 . 4 9
-30	-22	0.84	371	391	410	±6 . 3 6
-20	-4	0.82	403	424	446	±6 . 2 6
-10	14	0.80	437	460	483	±6 . 1 6
0	32	0.79	474	498	522	±6 . 0 7
10	50	0.77	514	538	563	±5 . 9 8
20	68	0.75	555	581	607	±5 . 8 9
25	77	0.74	577	603	629	±5 . 8 4
30	86	0.73	599	626	652	±5 . 7 9
40	104	0.71	645	672	700	±5 . 6 9
50	122	0.70	694	722	750	±5 . 5 9
60	140	0.68	744	773	801	±5 . 4 7
70	158	0.66	798	825	856	±5 . 3 4
80	176	0.64	852	882	912	±5 . 2 1
90	194	0.63	910	940	970	±5 . 0 6
100	212	0.61	970	1000	1030	±4 . 9
110	230	0.60	1049	1062	1106	±5 . 3 4
120	248	0.58	1089	1127	1164	±5 . 7 3
130	266	0.57	1152	1194	1235	±6 . 1 7
140	284	0.55	1216	1262	1309	±6 . 6 3
150	302	0.54	1282	1334	1385	±7 . 1
160	320	0.53	1350	1407	1463	±7 . 5 9
170	338	0.52	1420	1482	1544	±8 . 1
180	356	0.51	1492	1560	1628	±8 . 6 2
190	374	0.49	1570	1640	1719	±9 . 1 6