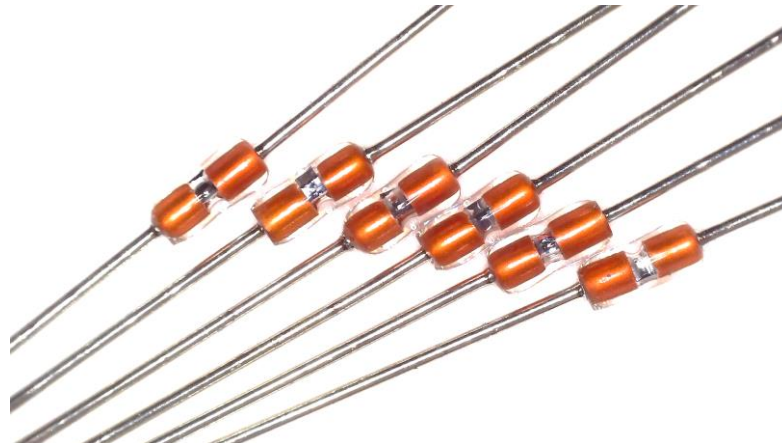


Temperature Sensors of PTC Series - KTY replacement



- **Alternative to KTY81, KTY82, KTY83 & KTY84**
- **Almost identical characteristics**
- **No polarity reversal (+/-) possible**
- **Short reaction time**
- **Excellent long-term stability**
- **DO-35 glass housing**
- **Customized wire bending**

Applications

The temperature sensors of the PTC series can be used as an alternative to the discontinued KTY81, KTY82, KTY83 & KTY84. The almost identical characteristic and design allow easy replacement. As single unit or assembled they can be ordered. Frequent applications can be found in windings of electric motors and transformers as winding temperature sensors, but also in printed circuit board construction, in household appliances and many more.

General technical data

Dimensions	DO-35 (DO-204-AH or SOD27)	
Operating temperature range	PTC-600:	-40 ... +170°C
	PTC-1000:	-55 ... +150°C
	PTC-2000:	-55 ... +150°C
Recommended measuring current	< 5mA	
Max. current	8mA @ 25°C	
Rated power	10mW	
Leads	Ferro-Nickel tinned	

Standard shape

Customized wire bending L1 & L2 according to your requirements

Changes and errors expected

Variants & Order Numbers

Description	Resistance	Tolerance	Measuring range	Alternative to	Order number	
					Bag	Tape & Reel
PTC-600 (3%)	$R_{100} = 1025 \Omega$	$\pm 3\%$	$-40^{\circ}\text{C} \dots +170^{\circ}\text{C}$	KTY84/130 KTY84/150 KTY84/151	520656	520662
PTC-1000 (1%)	$R_{25} = 1000 \Omega$	$\pm 1\%$	$-55^{\circ}\text{C} \dots +150^{\circ}\text{C}$	KTY81/110	520665	520871
				KTY82/110		
				KTY83/110		
				KTY81/120 KTY81/121 KTY81/122		
				KTY82/120 KTY82/121 KTY82/122		
				KTY83/120 KTY83/121 KTY83/122		
				KTY81/150 KTY82/150 KTY82/151 KTY83/150 KTY83/151		
				KTY81/210		
				KTY81/220 KTY81/221 KTY81/222		
				KTY82/210 KTY82/220 KTY82/221 KTY82/222		
				KTY81/250 KTY82/250 KTY82/251 KTY82/252		
PTC-2000 (1%)	$R_{25} = 2000 \Omega$	$\pm 1\%$	$-55^{\circ}\text{C} \dots +150^{\circ}\text{C}$	KTY81/210 KTY81/220 KTY81/221 KTY81/222 KTY82/210 KTY82/220 KTY82/221 KTY82/222 KTY81/250 KTY82/250 KTY82/251 KTY82/252	520873	520660

* Above the specified measuring ranges, the linearity of the characteristic curves cannot guaranteed

R/T table

°C	PTC-600 (3%)			PTC-1000 (1%)			PTC-2000 (1%)		
	min. Ω	nor. Ω	max. Ω	min. Ω	nor. Ω	max. Ω	min. Ω	nor. Ω	max. Ω
-55	---	---	---	463	477	492	942	980	1000
-50	---	---	---	488	502	516	992	1030	1051
-40	334	344	371	541	555	570	1098	1135	1158
-30	360	372	400	598	613	627	1212	1247	1271
-20	395	408	437	660	674	689	1333	1367	1391
-10	432	446	476	727	741	755	1463	1495	1519
0	472	487	518	797	810	823	1600	1630	1653
10	514	530	562	873	885	898	1746	1772	1795
20	559	576	609	950	961	972	1900	1922	1943
25	582	600	634	990	1000	1010	1980	2000	2020
30	604	623	657	1024	1036	1047	2056	2080	2103
40	651	672	706	1107	1121	1135	2215	2245	2274
50	700	724	757	1198	1215	1232	2380	2417	2454
60	755	780	813	1290	1311	1331	2553	2597	2641
70	811	837	870	1384	1408	1432	2732	2785	2837
80	869	897	929	1479	1508	1536	2918	2980	3041
90	931	960	992	1581	1614	1647	3111	3182	3253
100	994	1025	1056	1686	1724	1762	3310	3392	3474
110	1057	1091	1126	1793	1836	1879	3514	3607	3700
120	1124	1160	1201	1897	1947	1996	3712	3817	3922
130	1194	1234	1281	1996	2049	2101	3891	4008	4124
140	1262	1306	1357	2076	2133	2189	4039	4166	4293
150	1327	1375	1432	2140	2201	2261	4143	4280	4417
160	1385	1437	1501	---	---	---	---	---	---
170	1438	1493	1563	---	---	---	---	---	---



Packaging

Bag

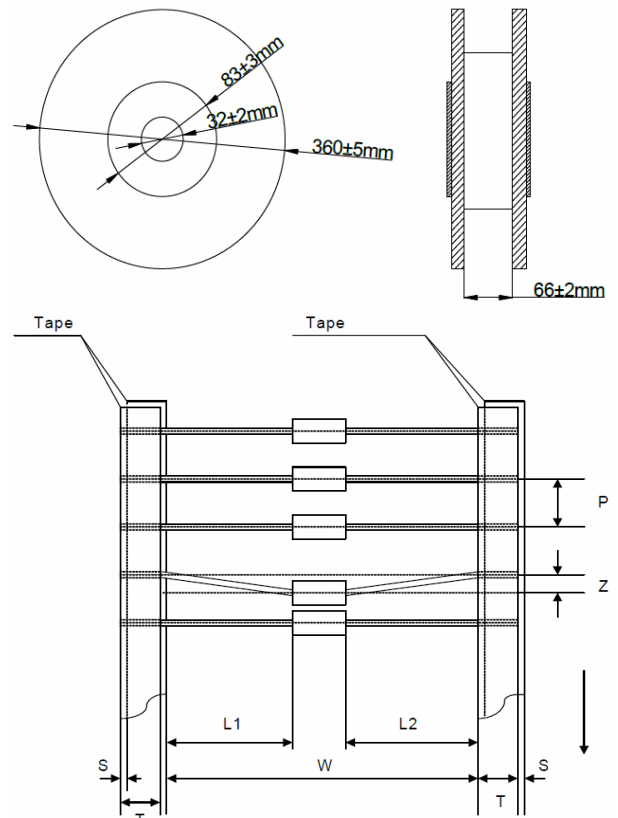
Packaging unit: 500 PCS per Bag
Weight: Per Bag appx. 0.072 kg

Tape & Reel

Packaging unit: 5.000 PCS taped on reel
Weight: Per Reel appx. 1.4 kg
Dimension (D x B): $\varnothing 360 \times 66 \text{ mm}$
Inner diameter (D1): $\varnothing 32 \text{ mm}$

Dimension tape

W	P	L1-L2	T	Z	S
52	5.08	± 0.69	0.55	1.2	0



All dimensions in mm

Changes and errors expected

Specification assembled temperature sensor

PTC-1000(1%) - 2L - ETFE - 250mm - 30mm - PVDF

Sensor element:

PTC-600, PTC-1000, PTC-2000, ...

Number of wires:

2-Wire = 2L

Material Wire insulation:

e.g. ETFE, FEP, PFA, etc.

Wire length:

e.g. 250mm

Length shrink tube:

e.g. 30mm

Material shrink tube:

e.g. PVDF 175(Kynar)

Example: PTC-1000(1%)-2L-ETFE-250mm-30mm-PVDF

Other Specification are available on request

UL-style version with UL wire and UL shrink tube is standard

