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# **TWC-K SERIES** resistance thermometers

### Description

TWC-K series resistance thermometers is widely used in the international market in the  $20^{th}$  century. It has a positive temperature coefficient of resistance and is suitable for use in the measurement and control systems over the temperature range up to  $200^{\circ}$ C.

K series chip is packaged by cylindrical glass, the leads of which is Nickel-iron alloy with TIN plated. This structure can have better mechanical strength compared with other sensor elements. Element is so rigid that it is friendly for mass production. It is available with plastic protect housing package and Kynar shrinking tube package for different application. Both packages can have excellent high voltage performance.

## Application

Because K series chips are made of semiconductor material, its price can be very cheap to be competitive in almost every field, such as industrial field, engineering applications, and so on. It can be embedded in the copper coils for any sizes of motors to monitor the temperature of motor working.

Also, it also can be used in oven, chamber and air conditioning application.

#### **Technical Data**

Parameter	Specification
Resistance @ 100℃	1000 Ω ±3%
Temp Range	-40 to 200℃
HV Performance	>2.5kV
Rated Current	≤5mA
Rated Power	≤50mW

### **R-T Table**

T℃	-40	-30	-20	-10	0	10	20	25	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180	190	200
R MIN	322	344	378	414	452	493	537	560	582	629	678	733	788	846	907	970	1030	1094	1162	1228	1290	1346	1396	1446	1491	1531
R TYP	341	363	398	435	475	517	562	585	608	656	706	761	817	875	937	1000	1064	1132	1204	1274	1341	1402	1457	1507	1552	1592
R MAX	359	382	418	456	498	541	587	610	634	683	734	789	846	904	967	1030	1098	1170	1246	1320	1392	1458	1518	1568	1613	1653

#### **K SERIES resistance thermometers**

With Kynar shrinking tube

Mode NO.	HOUSING Diameter	Sensor type	Wiring	Wire Spec	Wire length	Connection			
TWC- KE	Kynar shrinking tube D=Max4.2	H= 1xNTC, K Series CHIP		A= Single wire, Teflon insulation	00500	A=Half Stripping, 6mm			
TWC- KF	PPS Housing □6.4x3.4,L= 20	R100=1kΩ, ±3% (-40~+200°C) X= Special	2= 2-wire	E= Cable, 2 cores, Teflon jacket non-shield	=500mm xxxx =Special	B=Full Stripping TIN coating, 6mm X= According to specifications with specifying			
TWC- KG	PPS Housing	option		X= Special option	length	terminals or connectors.			
тwс- кх	Customized by	special request							

#### **K SERIES resistance thermometers**

Other customized sensors also can be designed to meet special request.





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