

Type E thermocouple|china E Type thermocouple WREK is a low-cost metal thermocouple. The positive electrode (EP) is: nickel-chromium 10 alloy, and the negative electrode (EN) is copper-nickel alloy. The nominal chemical composition is: 55% copper, 45% nickel and a small amount of Manganese, cobalt, iron and other elements. The operating temperature of this thermocouple is -200~900°C.

Features of E-type thermocouple

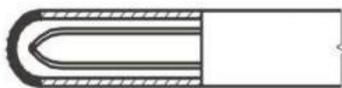
The thermoelectromotive force is large and the sensitivity is high. It is the best among the thermocouple types, better than the [K-type thermocouple](#). It is suitable to be made into a thermopile to measure small temperature changes. High sensitivity, but not very sensitive to the corrosion of high humidity atmosphere, suitable for low humidity environment. The E thermocouple also has the advantages of good stability, better oxidation resistance than copper-constantan and iron-constantan thermocouples, and low price. It can be used in oxidizing and inert atmospheres and is widely used. E-type thermocouples cannot be directly used for sulfur at high temperatures, and the uniformity of thermoelectric potential is poor in a reducing atmosphere.

Type E thermocouple|china E Type thermocouple WREK Range for temperature measurement and error-tolerance

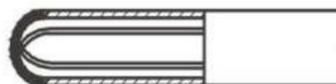
型号 Model	分度号 Graduation	允差等级 Tolerance level			
		I		II	
		测温范围 °C Range of temperature measurement °C	允差值 Tolerance value	测温范围 °C Range of temperature measurement °C	允差值 Tolerance value
WRNK	K	-40~+375	±1.5°C	-40~+333	±2.5°C
		375~1000	±0.004ItI	333~1200	±0.0075ItI
WRMK	N	-40~+375	±1.5°C	-40~+333	±2.5°C
		375~1000	±0.004ItI	333~1200	±0.0075ItI
WREK	E	-40~+375	±1.5°C	-40~+333	±2.5°C
		375~800	±0.004ItI	333~900	±0.0075ItI
WRFK	J	-40~+375	±1.5°C	-40~+333	±2.5°C
		375~750	±0.004ItI	333~750	±0.0075ItI
WRCK	T	-40~+125	±0.5°C	-40~+133	±1.0°C
		125~350	±0.004ItI	133~350	±0.0075ItI
WRPK	S	0~+1100	±1.0°C	0~600	±1.5°C
		1100~1600	±[1+0.003(t-1100)]	600~1600	±0.0025ItI
WRQK	R	0~1100	±1°C	0~600	±1.5
		1100~1600	±[1+0.003(t-1100)]	600~1600	±0.0025ItI
WRRK	B	—	—	600~1700	±0.0025ItI
		—	—	—	—

Type E thermocouple|china E Type thermocouple WREK Insulation resistance for normal temperature In terms of the sheath thermocouple, the environment temperature is 20 + 15°C, the relative humidity is not more than 80%, the test voltage is 500 + 50V(DC), the insulation resistance between electrode and outer sleeve ≥1000MΩ.m. That is to say, the insulation resistance for sample of 1m is 1000MΩ; the insulation resistance for sample of 10m is 100MΩ.

Structure form in the measuring terminal



绝缘式



接壳式

Type E thermocouple|china E Type thermocouple WREK Notice for model selection

Model Graduation

Precision grade

Installation and fixation form

Material for the protective tube

Length or insertion length

For example: in terms of the sheathed thermocouple, K model, I grade, fixed-sleeve screw, protective tube GH3030, length 450mm, insertion length: 300mm,WREK-231,Lx l=450x 300, the protective tube of I grade GH3030.