# 铠装铂热电阻

## Brief introduction to sheathed platinum thermal resistance

铠装铂热电阻是一种温度传感器，它比装配式铂电阻直径小，易弯曲，抗震性好，适宜安装在装配式铂电阻无法安装的场合。本公司生产的WZPK系列铠装铂电阻采用进口铂电阻测温元件，具有精确、灵敏、热响应时间快、质量稳定、使用寿命长等优点。

Sheathed platinum thermal resistance is a type of temperature sensor. Its diameter is less than that of packaged platinum resistance. Easy to bend and good in earthquake resistance, it is suitable to the places where the packaged platinum resistance cannot be fited. The WZPK series sheathed paltinum resistance produced by our company adopt the imported paltinum resistance element for thermometry, having the advantages of accuracy, sensitiveness, short thermal response time, stable quality and long service life.

铠装铂热电阻外保护套采用不锈钢，管内充满高密度氧化物质绝缘体，它具有很强的抗污染性能和优良的机械强度，适合安装在环境恶劣的场合。

The sheathed platinum thermal resistance has a strong anti pollution and fine mechanical strength and can be installed into places with bad environment condition for its outer protecting sleeve is made of stainless steel and the inside of its tube is filled with high density oxide insulator.

铠装热电阻可用于测量-70~600℃范围内温度，可直接用铜导线和二次仪表相连接使用。由于它具有良好的电阻输出特性，可为显示仪表、记录仪、调节器、扫描器、数据记录仪以及DCS系统提供精确的温度变化输出信号，符合JB/T8622-1997标准。

Sheathed thermal resistance can be used to measure the temperature within -70~600℃. It can also be made use of by connecting directly the cupper codnuctor with secondary meter. With good electric output property, it can provide accurate output signal of temperature variation for display instrument, recorder, accommodator, sacnner, data logger and computer. It shall comply with JB/T8622-1997 standard.

## 温度测量范围及允差 Temperature measurement range and tolerance

| 类型Type | 分度号 Graduation mark | 测量范围(℃) Measuring range | 允许偏差△t(℃) Tolerance |
|---|---|---|---|
| 铂热电阻 Platinum thermal resistance | Pt100 | −70~+600 | A级:±(0.15+0.002\|t\|)<br>B级:±(0.30+0.005\|t\|) |

铠装铂热电阻的热响应时间及可供长度

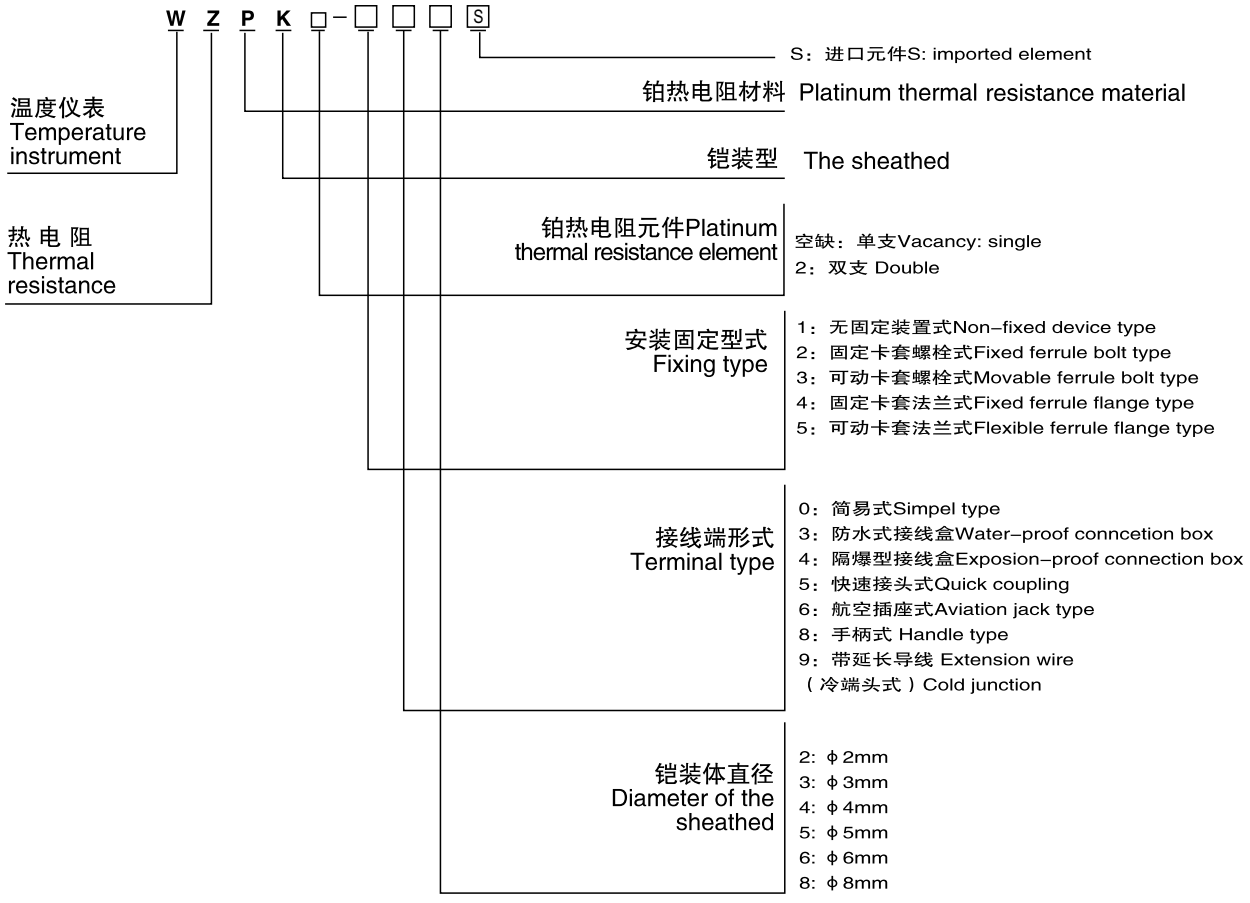
## Thermal response time and available length of sheathed platinum thermal resistance

| d(mm) | 热响应时间τ0.5(s)Thermal response time | 保护管材料 Protection tube material | L（mm） |
|---|---|---|---|
| φ3 | ≤3 | *1Cr18Ni9Ti | 100 400 1000 4000 10000<br>150 450 1500 4500 12000<br>200 500 2000 5000 13000<br>250 650 2500 6000 14000<br>300 750 3000 7000 15000<br>350 900 3500 8000 20000 |
| φ4 | ≤5 | | |
| φ5 | ≤8 | | |
| φ6 | ≤12 | | |
| φ8 | ≤18 | | |

注：铠装热电阻的测量端部分100mm内不能弯曲，可绕半径不应小于铠装体直径的5倍。“*”常规供货为1Cr18Ni9Ti，如需要其他材质另行注明。

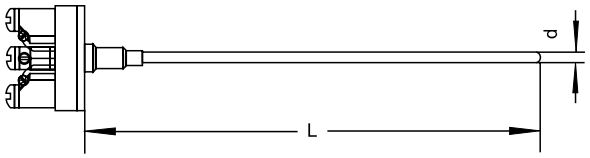
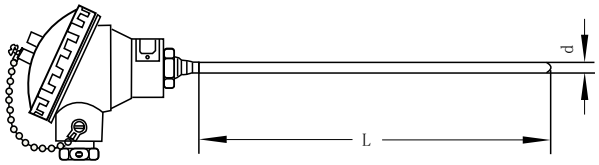
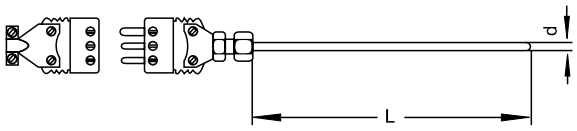
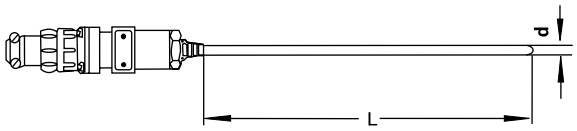
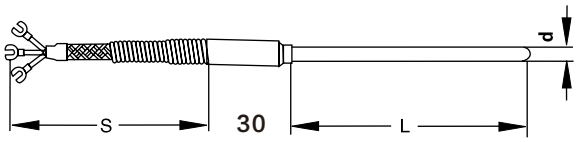
Note: The measuring terminal part of the sheathed thermal resistance shall not bend within 100mm, and the windable radius behind the former part shall not less than 5 times of the daimeter of the sheathed. The ordinary order is 1Cr18Ni9Ti. Pleaser mark it seperatedly if other material is required.

## 型号命名Type designation



## 结构型式Structure shape

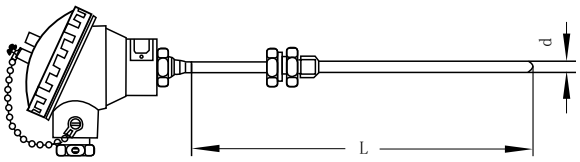
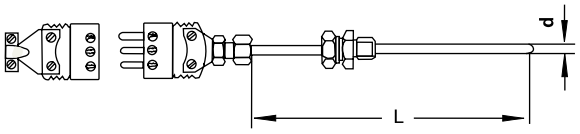
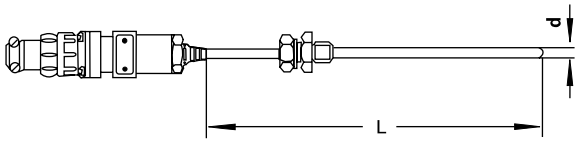
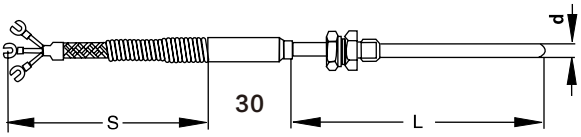
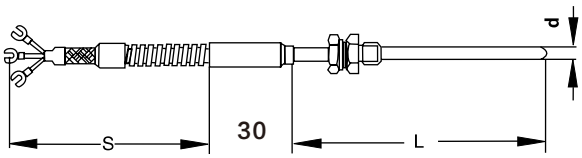
### 无固定装置式铠装铂热电阻Non-fixed device sheathed platinum thermal resistance

| 接线端型式Terminal type | 型号Model | 示意图Schematic diagram |
|---|---|---|
| 简易式 Simpel type | WZPK-10□S<br>WZPK$_2$-10□S |  |
| 防水式 Water-proof Type | WZPK-13□S<br>WZPK$_2$-13□S |  |
| 快速接头式 Quck coupling type | WZPK-15□S<br>WZPK$_2$-15□S |  |
| 航空插座式 Aviation jack type | WZPK-16□S<br>WZPK$_2$-16□S |  |
| 手柄式 Handle type | WZPK-18□S<br>WZPK$_2$-18□S |  |
| 带延长导线式 Extension wire | WZPK-19□S<br>WZPK$_2$-19□S |  |

注：（1）WZPK-10□S可用于装配式铂热电阻铠装元件更换。其长度的正确选用应为保护管总长度“L”再增加30mm。
（2）带延长导线式，尾线常规附带1500mm，如需增加请注明长度。
（3）选择铠装热电阻的分度号、测量范围、热响应时间、直径、可供长度可按照用户要求。
（4）型号后加“S”为进口元件。

Note: (1) WZPK-10□S is applicable to replacement of sheated elements of packaged platinum thermal resistacne.Its length shall be the overall length “L” of the outer protecting tube plus 30mm.
(2) Of the extension wire type, the buttcock line always is attached to 500mm. If it need to add, please indicate the length.
(3) Refer to select the graduation mark, mearing range, thermal response time, diameter and available length of the sheathed thermal resistance.
(4) The type with a “S” attached to is improted element.

## 卡套螺栓式铠装铂热电阻Ferrule bolt sheathed platinum thermal resistance

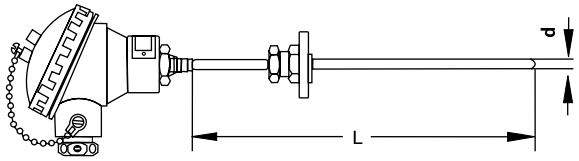
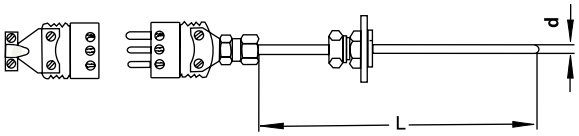
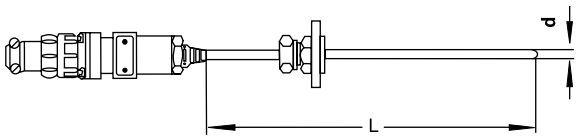
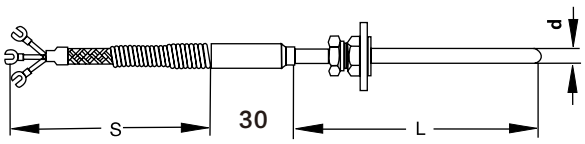
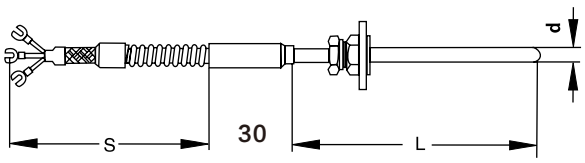
| 接线端型式Terminal type | 型号Model | 示意图Schematic diagram |
|---|---|---|
| 防水式<br>Water-proof Type | WZPK-23□S<br>WZPK$_2$-23□S<br>WZPK-33□S<br>WZPK$_2$-33□S |  |
| 快速接头式<br>Quck coupling type | WZPK-25□S<br>WZPK$_2$-25□S<br>WZPK-35□S<br>WZPK$_2$-35□S |  |
| 航空插座式<br>Aviation jack type | WZPK-26□S<br>WZPK$_2$-26□S<br>WZPK-36□S<br>WZPK$_2$-36□S |  |
| 带延长导线式<br>Extension wire | WZPK-29□S<br>WZPK$_2$-29□S<br>WZPK-39□S<br>WZPK$_2$-39□S |  |
| 带延长导线式<br>（不锈钢软管）<br>Extension wire<br>(stainless steel soft tube) | WZPK-29□SP3A<br>WZPK$_2$-29□SP3A<br>WZPK-39□SP3A<br>WZPK$_2$-39□SP3A |  |

注：（1）铠装热电阻直径　　，卡套螺栓的螺栓常规供货为M16×1.5。
（2）固定卡套螺栓公称压力：2.5Mpa。活动卡套螺栓公称压力为常压。
（3）卡套螺栓规格为16*1.5，可按照用户要求制作螺纹。
（4）型号后加“S”为进口元件。

Note: (1) The diameter of sheathed thermal resistance is not less than. The common shipment of ferrule bolt bolt is M16×1.5; and

(2) The fixed ferrule bolt's nominal pressure is 2.5Mpa, while the movable ferrule bolt's nominal pressure is norminal pressure.
(3) Refer for the specification of ferrule bolt.
(4) The type with a “S” attached to is improted element.

## 卡套法兰式铠装铂热电阻Ferrule flange sheathed paltinum thermal resistance

| 接线端型式Terminal type | 型号Model | 示意图Schematic diagram |
|---|---|---|
| 防水式 Water-proof Type | WZPK-43□S<br>WZPK$_2$-43□S<br>WZPK-53□S<br>WZPK$_2$-53□S |  |
| 快速接头式 Quck coupling type | WZPK-45□S<br>WZPK$_2$-45□S<br>WZPK-55□S<br>WZPK$_2$-55□S |  |
| 航空插座式 Aviation jack type | WZPK-46□S<br>WZPK$_2$-46□S<br>WZPK-56□S<br>WZPK$_2$-56□S |  |
| 带延长导线式 Extension wire | WZPK-49□S<br>WZPK$_2$-49□S<br>WZPK-59□S<br>WZPK$_2$-59□S |  |
| 带延长导线式（不锈钢软管） Extension wire (stainless steel soft tube) | WZPK-49□SP3A<br>WZPK$_2$-49□SP3A<br>WZPK-59□SP3A<br>WZPK$_2$-59□SP3A |  |

注：（1）铠装热电阻直径 ，卡套法兰盘常规供货为 ϕ60；
（2）固定卡套法兰公称压力：2.5Mpa。可动卡套螺栓公称压力为常压。（3）卡套法兰规格。
（4）型号后加“S”为进口元件。

Note: (1) The diameter of sheathed thermal resistance is not less than 5, The common shipment of ferrule flange is ϕ60； and ≤ϕ4 is ϕ50.
(2) The fixed ferrule flange's nominal pressure is 2.5Mpa, while the flexible ferrule flange's nominal pressure is norminal pressure.
(3) Refer for the specification of ferrule flange.
(4) The type with a “S” attached to is improted element.

**铠装铂电阻热电偶安装示意图**

**Installation fixed form of sheathed platinum thermal resistance thermocouple**