

铠装热电阻

Armored Thermal Resistance

应用

通常和显示仪表、记录仪表、电子计算机等配套使用。直接测量各种生产过程中的-200℃~500℃范围内液体、蒸汽和气体介质以及固体表面温度。

Application

It is usually connected with displaymeter, recording meter and computer, etc. to directly measure temperature of liquid, vapor, gas and solid surface ranging from -200℃ to 500℃ during various production process.

特点

- 热响应时间少, 减小动态误差;
- 直径小, 长度不受限制;
- 测量精确度高;
- 进口薄膜电阻元件, 性能可靠稳定;

Features

- With quick thermal response, reducing dynamic error
- Small diameter, no limit on length
- High measuring accuracy
- Imported film resistor with high reliability and stability

工作原理

铠装热电阻是利用物质在温度变化时, 其电阻也随着发生变化的特征来测量温度的。当阻值变化时, 工作仪表便显示出阻值所对应的温度值。

Operation Theory

It is based on that temperature change of material results in change of its resistance. When resistance value changes, the working instrument will display relevant temperature.

主要技术参数

产品执行标准

IEC751
JB/T8622 - 1997

Main Technical Parameters

Executive Standard

IEC751
JB/T8622-1997

偶丝直径材料 Filament Diameter & Material

偶丝形式 Filament	单支式 simplex ☺	双支式 duplex ☺
套管直径 Tube Diameter	Φ3 Φ4 Φ5 Φ6 Φ8	Φ4 Φ5 Φ6 Φ8
套管材质 Tube Material	1Cr18Ni9Ti	1Cr18Ni9Ti

常温绝缘电阻

热电阻在环境温度为15~35℃, 相对湿度不大于80%, 试验电压为10~100V(直流)电极与外套管之间的绝缘电阻≥100MΩ

Insulation Resistance at Normal Temperature

The insulation resistance between electrode and protection tube of armored thermal resistance shall be no less than 100MΩ under condition that environment temperature is 15~35℃, relative humidity is no more than 80%, and testing voltage is D. C. 10~100V.



测温范围及温差 Measuring Range & Tolerance

型号 Type	分度号 Graduation	测温范围℃ Measuring Range °C	精度等级 Accuracy	允差 Tolerance
WZPK	Pt100	-200 ~ +500	A 级 Class A	$\pm (0.15+0.002 t)$
			B 级 Class B	$\pm (0.30+0.005 t)$

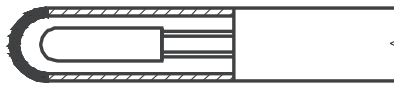
注: t 为感温元件实测温度绝对值

Remarks: t is absolute temperature value actually tested with thermal sensor:

热响应时间 Thermal Response Time

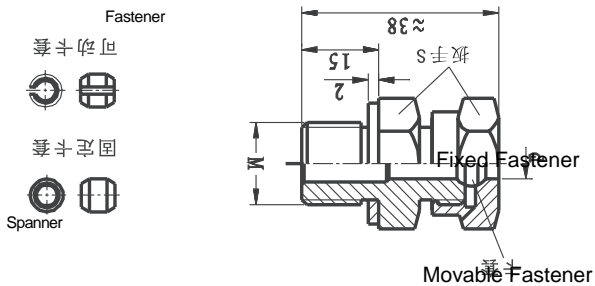
套管直径 Sleeve Tube Diameter	热响应时间 Thermal Response Time
Φ 3	≤ 3
Φ 4	≤ 5
Φ 5	≤ 8
Φ 6	≤ 12
Φ 8	≤ 15

测量端结构形式 Measuring End Configuration



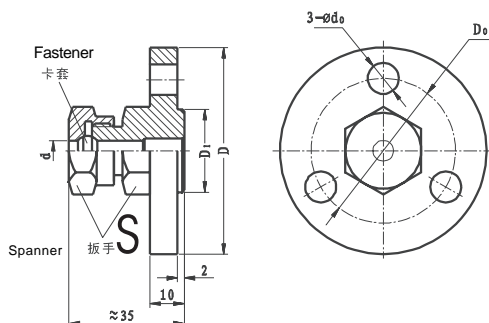
安装固定形式 Mounting & Fixing

卡套螺纹接头 Threaded Connector with Fastener



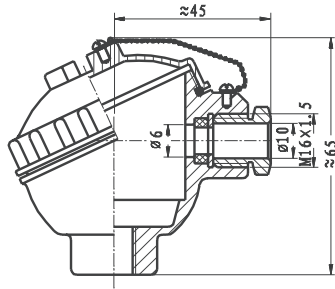
代号和尺寸 Code & Size	铠装阻外径 Outer Diameter of Armored Thermal Resistance				
	Φ 8	Φ 6	Φ 5	Φ 4	Φ 3
M	M16 × 1.5			M12 × 1.5	
S	22			19	

卡套法兰盘 Flange with Fastener

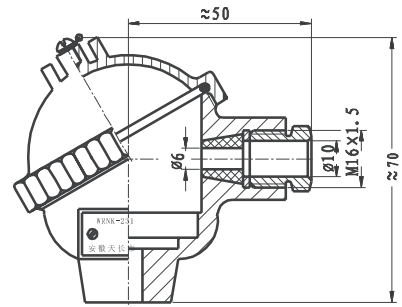


代号和尺寸 Code & Size	铠装阻外径 Outer Diameter of Armored Thermal Resistance				
	Φ 8	Φ 6	Φ 5	Φ 4	Φ 3
D	Φ60			Φ50	
D ₀	Φ42			Φ36	
D ₁	Φ24			Φ20	
S	Φ22			Φ19	
d ₀	Φ9			Φ7	

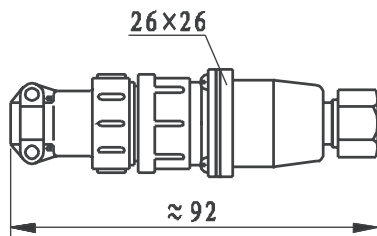
接线盒形式 Junction Box Figure



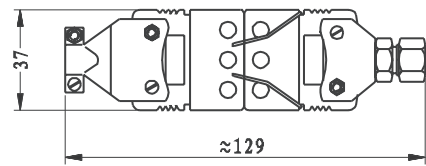
防喷式
Anti-spray Type



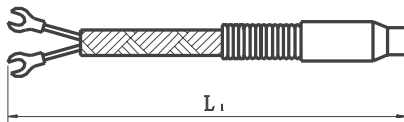
防水式
Water-proof Type



扁接插式
Flat Plug Type



圆接插式
Round Plug Type

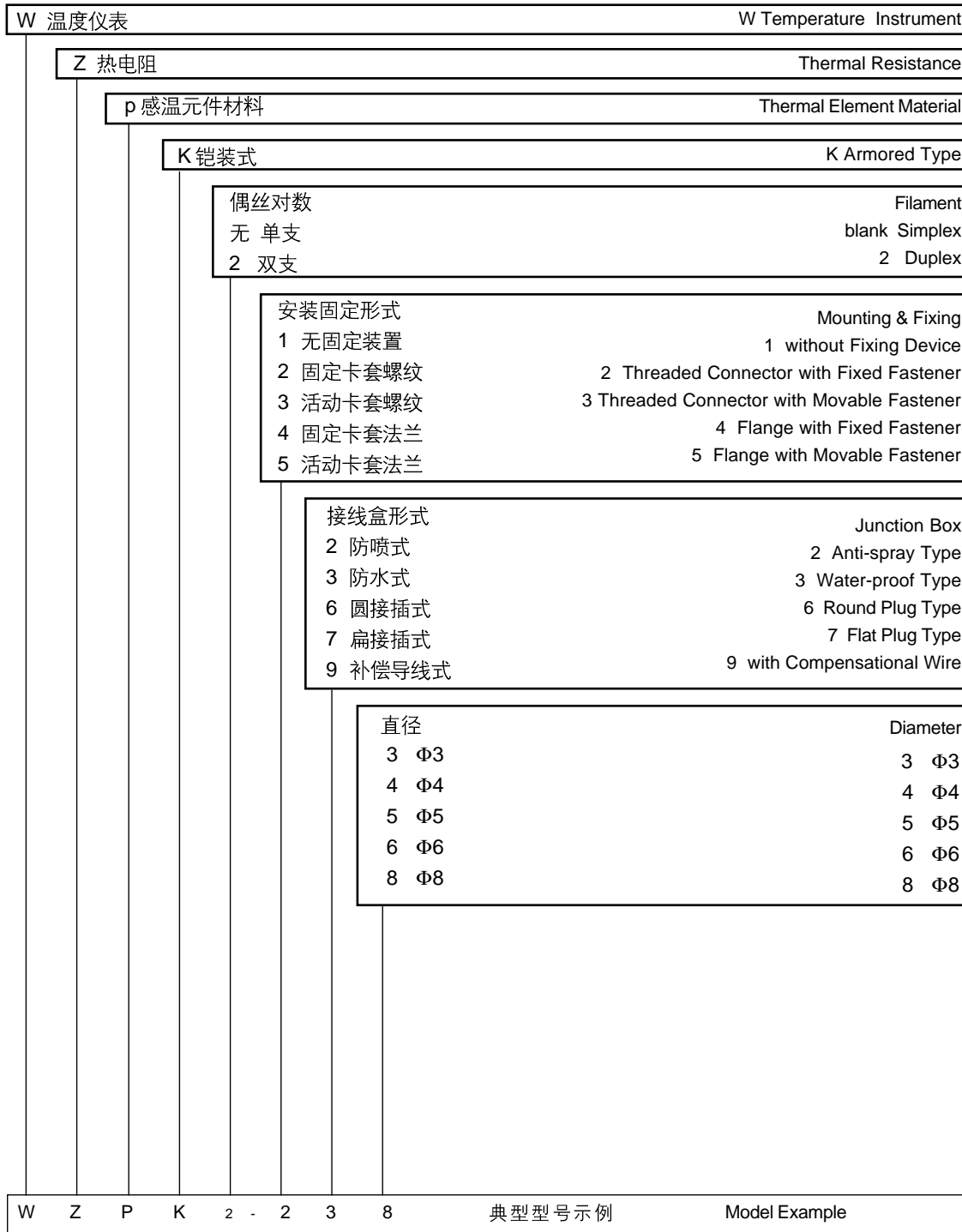


带补偿导线式
with Compensation Wire



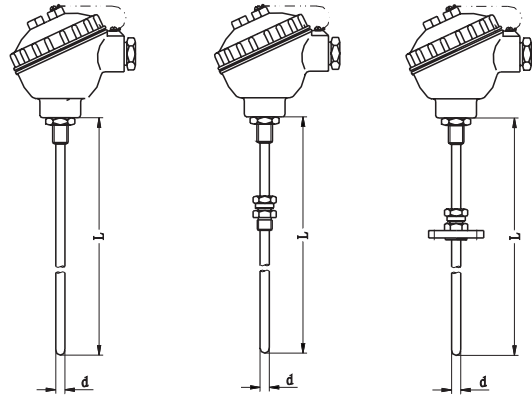
型号命名方法

Type Naming Method



防喷式铠装热电阻

Anti-spray Type Armored Thermal Resistance



型号 Type	分度号 Graduation	测温范围℃ Measuring Range	精度等级 Accuracy Class	安装固定装置 Mounting & Fixing Device
WZPK-123	Pt100	-200 ~ +500	A级或B级 A or B	无固定装置 without Fixing Device
WZPK-124				
WZPK-125				
WZPK-126				
WZPK-128				
WZPK ₂ -124				
WZPK ₂ -125				
WZPK ₂ -126				
WZPK ₂ -128				
WZPK-223				固定卡套螺纹 Threaded Connector with Fixed Fastener
WZPK-224				
WZPK-225				
WZPK-226				
WZPK-228				
WZPK ₂ -224				
WZPK ₂ -225				
WZPK ₂ -226				
WZPK ₂ -228				
WZPK-323				
WZPK-324				
WZPK-325				
WZPK-326				
WZPK-328				
WZPK ₂ -324				
WZPK ₂ -325				
WZPK ₂ -326				
WZPK ₂ -328				



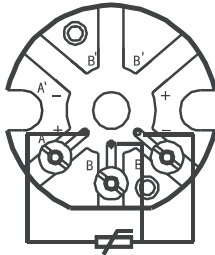
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型号 Type	分度号 Graduation	测温范围℃ Measuring Range	精度等级 Accuracy Class	安装固定装置 Mounting & Fixing Device
WZPK-423	Pt100	-200 ~ +500	A级或B级 A or B	固定卡套法兰 Flange with Fixed Fastener
WZPK-424				
WZPK-425				
WZPK-426				
WZPK-428				
WZPK ₂ -424				
WZPK ₂ -425				
WZPK ₂ -426				
WZPK ₂ -428				
WZPK-523				可动卡套法兰 Flange with Movable Fastener
WZPK-524				
WZPK-525				
WZPK-526				
WZPK-528				
WZPK ₂ -524				
WZPK ₂ -525				
WZPK ₂ -526				
WZPK ₂ -528				

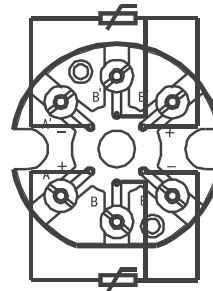
铠装阻防护等级 IP65;

Protection Class of Armored Resistance: IP65;

接线方式 Wiring Method



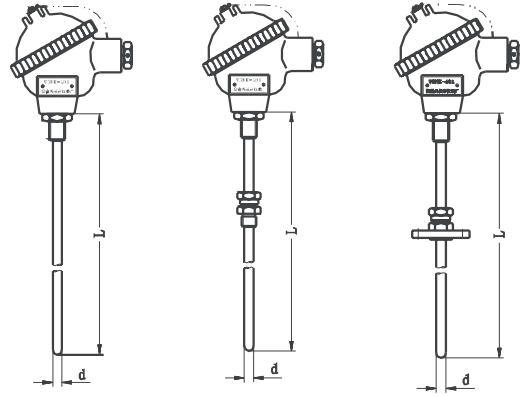
单支接线方法
Wiring Method (Simplex)



双支接线方法
Wiring Method (Duplex)

防水式铠装热电阻

Water-proof Armored Thermal Resistance



型号 Type	分度号 Graduation	测温范围℃ Measuring Range	精度等级 Accuracy Class	安装固定装置 Mounting & Fixing Device
WZPK-133	Pt100	-200 ~ +500	A级或B级 A or B	无固定装置 without Fixing Device
WZPK-134				
WZPK-135				
WZPK-136				
WZPK-138				
WZPK ₂ -134				
WZPK ₂ -135				
WZPK ₂ -136				
WZPK ₂ -138				
WZPK-233				固定卡套螺纹 Threaded Connector with Fixed Fastener
WZPK-234				
WZPK-235				
WZPK-236				
WZPK-238				
WZPK ₂ -234				
WZPK ₂ -235				
WZPK ₂ -236				
WZPK ₂ -238				
WZPK-333				可动卡套螺纹 Threaded Connector With Movable Fastener
WZPK-334				
WZPK-335				
WZPK-336				
WZPK-338				
WZPK ₂ -334				
WZPK ₂ -335				
WZPK ₂ -336				
WZPK ₂ -338				



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表

型号 Type	分度号 Graduation	测温范围℃ Measuring Range	精度等级 Accuracy Class	安装固定装置 Mounting & Fixing Device
WZPK-433	Pt100	-200 ~ +500	A级或B级 A or B	固定卡套法兰 Flange with Fixed Fastener
WZPK-434				
WZPK-435				
WZPK-436				
WZPK-438				
WZPK ₂ -434				
WZPK ₂ -435				
WZPK ₂ -436				
WZPK ₂ -438				
WZPK-533				
WZPK-534				可动卡套法兰 Flange with Movable Fastener
WZPK-535				
WZPK-536				
WZPK-538				
WZPK ₂ -534				
WZPK ₂ -535				
WZPK ₂ -536				
WZPK ₂ -538				

铠装阻防护等级 IP55;

Protection Class of Armored Resistance: IP55;