装配热电阻使用说明

Assembly Thermal Resistance Instruction

CN BOILER ENGINEERING SOLUTION LLC

装配热电阻

Assembly 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。直接测量和各种生产过程中的 -200 ℃ - 500 ℃ 范围内液体、蒸汽和气体介质以及固体表面测温。

特　点

1、压簧式感温元件、抗振性能好；

2、毋须补偿导线、节省费用；

3、测量精度高；

4、机械强度高、耐压性能好；

5、进口薄膜电阻元件、性能可靠稳定；

工作原理

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

主要技术参数

产品执行标准

IEC751

JB/T8622-1997

JB/T8623-1997

常温绝缘电阻

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

Application

It is usuakky connected with display meter, 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.

Features

1.Spring thermal sensor with good shock-proof performance

2.No compensational wire,spare cost

3.High measuring accuracy

4.High mechanical strength.good pressure-resistant performance

5.Imported fim resitor with stsble &reliable performance

Operation Theory

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

Main Technical Parameters

Executive Standard

IEC751

JB/T8622-1997

JB/T8623-1997

Insulation Resistance at Normal Temperature

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

测量范围及允差

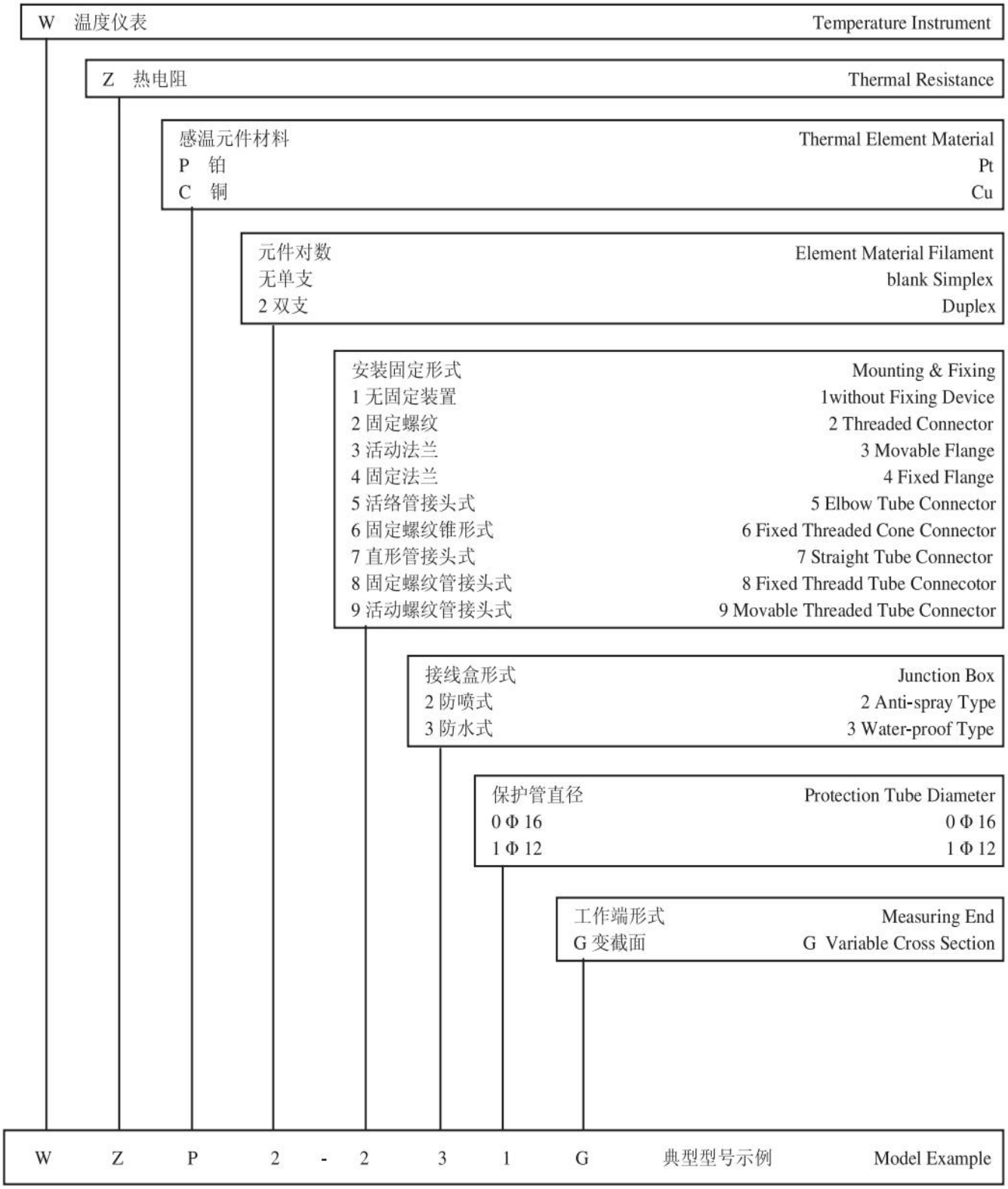
Measuring Range &Tolerance

型号 Tpye	分度号 Graduation	测量范围 Measuring Range ℃	精度等级 Accuracy	允许偏差 Tolerance
WZP	Pt100	-200 - +500	A 级	±（0.15+0.002）ltl
			B 极	±（0.30+0.005）ltl
WZC	Cu50 Cu100	-50 - + 100	-	±（0.30+0.006）ltl

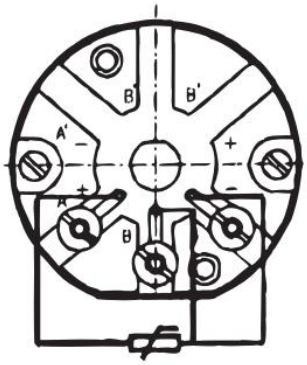
注：t 为感温元件实测温度绝对值　　Remarks:t is absolute value actually tested with thermal sensor

型号命名方法

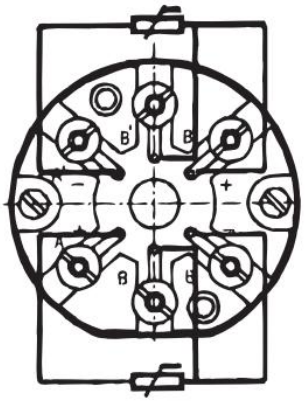
Type Naming Method



接线方式　Wiring Method



单支接线方法
Wiring Method (Simplex)



双支接线方法
Wiring Method (Duplex)

运输与贮存

热电阻及其附件在安装前必须贮存在不受震动和碰撞的地方，最合适的贮放场所条件为：环境温度 10-35℃、相对湿度不大于 80%，周围空气不含有可能造成热电阻零件腐蚀的杂质。

热电阻在长距离运输 过程中应仔细地包装好。

可能发生的故障及其修理

序号	故障现象	可能原因	修理方法
1	显示仪表显示值比实际偏低或示值不稳定	保护管内有水或接线盒上有金属屑、灰尘或热电阻短路	（1）倒出水或清除灰尘，并将潮湿部分加以干燥处理；提高绝缘（不能火烤）。 （2）用万用电表检查断路或接地的部位，并清除之。
2	显示仪表显示值无限大	热电阻断路	（1）用万用电表检查断路部位，确定是连接导线还是感温元件短路。 （2）如系敏感元件断路应进行更换。
3	显示仪表显示下限值	（1）热电阻短路 （2）显示仪表接线错误	（1）用万用电表检查确定短路部位，如系感温元件短路应进行修复或更换。 （2）重新连接导线。

Storage and transportation

Before fixing , the resistance thermometer sensor and its accers oriess should be stored away form vibration . The suitable ambient condetions for storage are as follows:temp. range form 10-35℃,relative humidity not more than 80% ,free from foreign substances that will cause eorrosin.

During long-distance transportation, the resistance thermometer sensor should be well packaged.

Troubleshoting

Order	Trouble	Poaaible cause	Remedy
1	The display value than practical value or is insteacy	There is water in the protective tube Metal crumbs or dust accumulated in terminal bead. The esistance thermometer sensor shortcircuited	1.Clear awaywater or dust and dry out the eampedpart (dry by a fire is not allowed) 2.To rind out short-cirouit with avometer and eliminste it if sesing element short-circuited it should be replaced
2	The readings of the display devive is infi nite	The wire in resistace thermometer sensor	1.To define whether the conductor or the sensing element is broken with avometer. 2.If the conductor is borken, It can be replaced or renovated.3.If the sensing element is broken, it should be replaced.
3	the diaplay device indicates	1.resistance thermometer sensor is short-circuit. 2.the wiring for the display device is incorrect	1.To determing the short-circuit If the sensing element short-circuted 2.To rewire correctly.

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