WZP Temperature Sensor

Assembly Thermal Resistance

Application

It is usually 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 film resistor with stable & 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 instrument will display relevant temperature.

Main Technical Parameters

Executive Standard

IEC751
JB/T8622-1997
JB/T8623-1997

Insulation Resistance at Normal Temperature

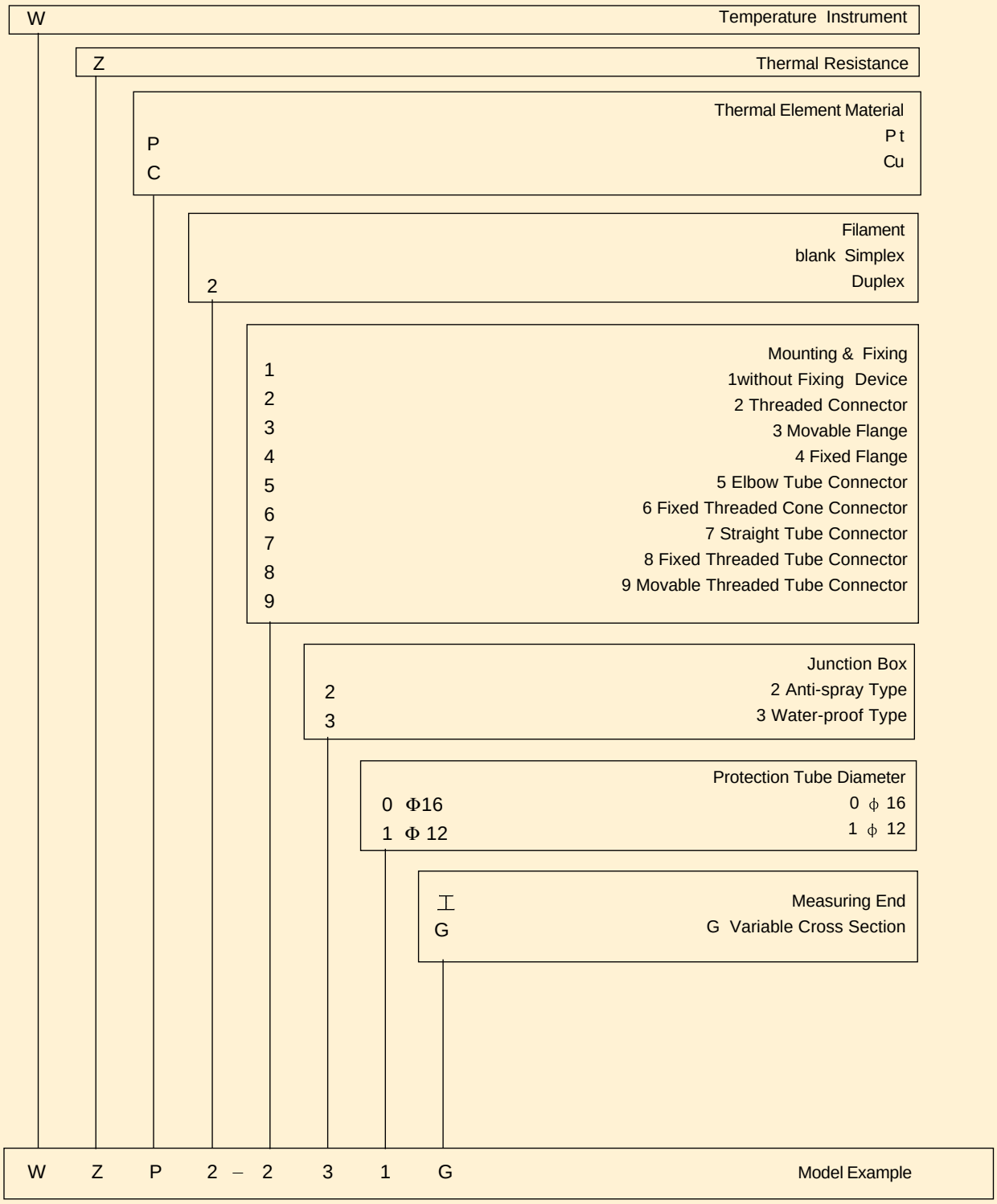
The insulation resistance between electrode and protection tube of armored resistance shall be no less than 100M Ω under condition that environment temperature is 15~35℃, relative humidity is no more than 80%, and testing voltage is D. C. 10~100V.

Measuring Range & Tolerance

Type	Graduation	Measuring Range ℃	Accuracy	Tolerance
WZP	Pt100	-200 ~ +500	A	± (0.15+0.002)ltl
			B	± (0.30+0.005)ltl
WZC	Cu50 Cu100	-50 ~ +100	–	± (0.30+0.005)ltl

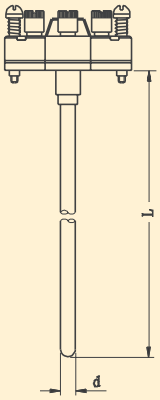
Remarks: t is absolute value actually tested with thermal sensor.

Type Naming Method



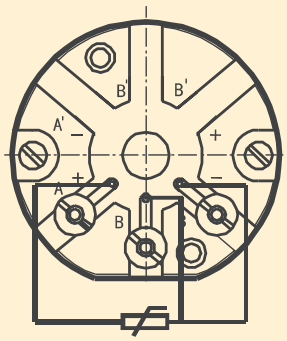
Type & Specification

Thermal Element

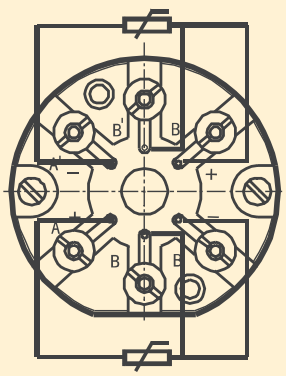


Name	Type	Graduation	Measuring Range ℃	Specification	
				d	L
Simplex Pt Thermal Resistance	WZP-101	Pt100	-200 ~ 500	Φ3 Φ4 Φ5 Φ6	310 360 410 460 510 560
Duplex Pt Thermal Resistance	WZP$_2$-101				

Wiring Method

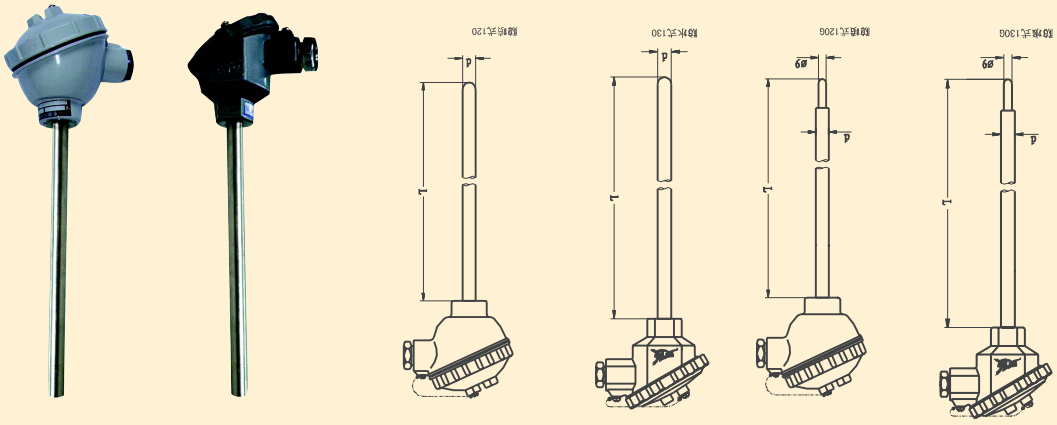


Wiring Method (Simplex)



Wiring Method (Duplex)

Thermal Resistance without Fixing Device

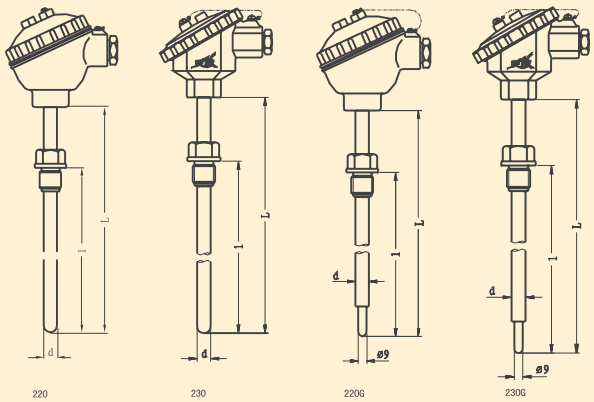


Type	Graduation	Measuring Range ℃	Thermal Response Time	Specification	
				d	L
WZP-120 WZP$_2$-120	Pt100	-200 ~ 500	< 90S	Φ16	300 350 400 450 500 550 650 900 1150 1650 2150
WZP-120G WZP$_2$-120G			< 24S		
WZP-121 WZP$_2$-121			< 45S	Φ12	
WZP- 121G WZP$_2$-121G			< 24S		
WZP- 130 WZP$_2$-130			< 90S	Φ16	
WZP- 130G WZP$_2$-130G			< 24S		
WZP- 131 WZP$_2$-131			< 45S	Φ12	
WZP- 131G WZP$_2$-131G			< 24S		
WZC-120G	Cu50 Cu100	-40 ~ 100	< 120S	Φ16	
WZC-120			< 40S		
WZC-130			< 120S		
WZC-130G			< 40S		
WZC-121			< 120S	Φ12	
WZC-121G			< 40S		
WZC-131			< 120S		
WZC-131G			< 40S		

1) Type 120, 121 for anti-spray type,protection class IP65;
Type 130, 131 for water-proof type, protection class IP55;

2) Protection tube material is 1Cr18Ni9Ti, and we also produce the resistance with protection tube of other material.

Thermal Resistance with Threaded Connector



Type	Graduation	Measuring Range ℃	Thermal Response Time	Specification	
				d	L × l
WZP-220 WZP$_2$-220	Pt100	-200 ~ 500	< 90S	Φ16	300 × 50 350 × 00 400 × 50 450 × 00 500 × 50 550 × 00 650 × 00 900 × 50 1150 × 000 1650 × 500 2150 × 000
WZP-220G WZP$_2$-220G			< 24S		
WZP-221 WZP$_2$-221			< 45S	Φ12	
WZP- 221G WZP$_2$-221G			< 24S		
WZP- 230 WZP$_2$-230			< 90S	Φ16	
WZP- 230G WZP$_2$-230G			< 24S		
WZP- 231 WZP$_2$-231			< 45S	Φ12	
WZP- 231G WZP$_2$-231G			< 24S		
WZC-220G	Cu50 Cu100	-40 ~ 100	< 120S	Φ16	
WZC-220			< 40S		
WZC-230			< 120S		
WZC-230G			< 40S		
WZC-221			< 120S	Φ12	
WZC-221G			< 40S		
WZC-231			< 120S		
WZC-231G			< 40S		

1) Type 220, 221 for anti-spray type, protection class IP65; Type230, 231 for water-proof type, protection class IP55;
2) Protection tube material is 1Cr18Ni9Ti, and we also produce the resistance with protection tube of other material;
3) Nominal Pressure ⩽ 10Mpa.

Model Type	Thread Specification		d
	Code	M	
WZP-230		M27 × 2	Φ 16
WZP-230A	A	G3/4	
WZP-230C	C	NPT3/4	
WZP-231G		M27 × 2	Φ 12
WZP-231GA	A	G3/4	
WZP-231GC	C	NPT3/4