WQYT-X Gas Expansion Capillary Thermometer

WQYT-X Gas Expansion Capillary Thermometer is a kind of analog pointer thermometer to measure temperature by air pressure. With all stainless steel construction and wetted part, it can measure high temperature measurement up to 650℃, suitable for corrosive environment in chemical industrial, processing, machinery, piping, building construction and various industries. Liquid fillable for extreme vibration application is available. WQYT-X Gas Expansion Capillary Thermometer is widely used in the measurement and control of temperature in the production process of petroleum, chemical, electric power, printing and dyeing industries. It features strong reliability, good stability and long service life, especially the miniaturization and simplification of the temperature package, which makes it more widely applicable.

Technical Specification

Nominal Size: 2.5", 4", and 6"(63, 100 and 150mm)

Accuracy Class: Class 1.6

Connection Size: Sliding connection standard Size G¼", G½", NPT or customized

Temperature Scale Range: -40°...+650℃ (-120°...+1200℉)

Mounting: Bottom，back，wall or panel mount

Sensing Element: Gas filled measuring system

Filling: Dry, or oil fillable

Maximum Pressure on Stem: Maximum 25 Bar

Bezel Ring Type: Hermetically sealed fastening type

Dial Graduation: single or dual scales ℉ and ℃, black on white background

Casing, Bezel Ring & capillary: Stainless steel 304

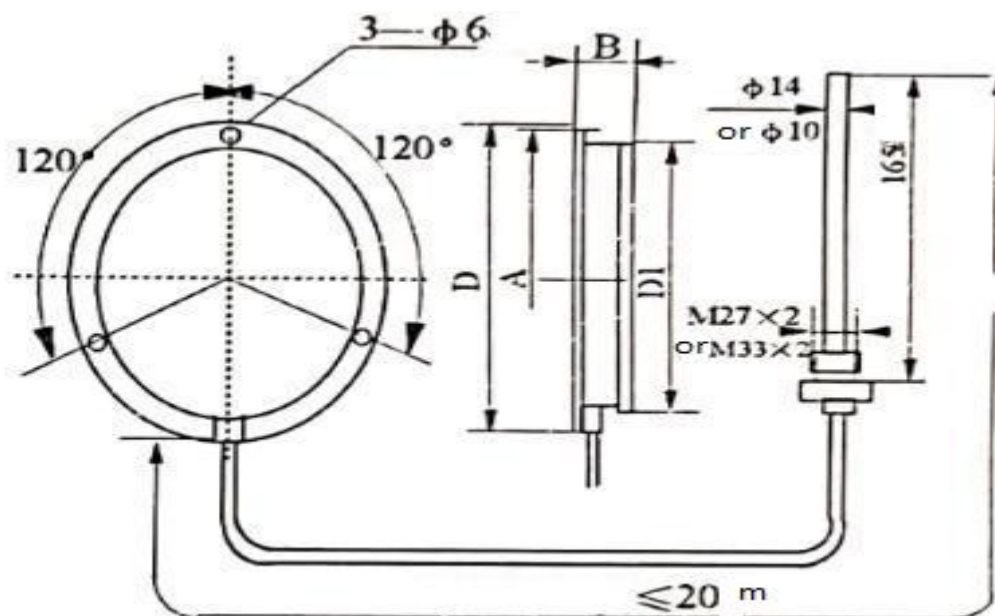Probe/ Bulb Sensor: Stainless steel 304 or 316

Connection: SS 304, sliding connection standard, or Union rotatable connection

Window: Plain instrument glass

Pointer: Black painter aluminum

Dial Plate: Aluminum alloy, bowl

Contact device (optional): upper limit, lower limit or double upper limit ,220VAC ,380VAC ,50HZ,10VA

Size:

Surface diameter	DI	A	D	B
Φ150	Φ145	Φ158	Φ170	37
Φ100	Φ106	Φ118	Φ130	37
Φ150 Electric connection	Φ145	Φ158	Φ170	68

Maintenance and Precautions

1. The validity period of the thermometer should be checked before use. If it has expired, it needs to be retested.

2. The thermometer should be used in the environment where the ambient air temperature is - 10℃~55℃ and the relative humidity is not more than 80%.

3. The thermometer should be vertically installed on the mounting plate without vibration, and should be kept in the same horizontal position as the installation position of the temperature chamber as far as possible, so as to reduce the additional error caused by the action of hydrostatic column.

4. The temperature chamber must be completely immersed in the measured medium (and the maximum depth of the bulb should be inserted as far as possible, so as to reduce the error caused by the heat dissipation caused by the installation bolts of the temperature chamber), and the measured medium should flow frequently.

5. During installation, the capillary tube should be straight and fixed with a rolling head at a

distance of no more than 300mm, and the bending radius of the capillary should not be less than 50mm.

6. Before using the electric contact thermometer, check whether the working condition of the contact is normal and whether the contact power exceeds the rated value, and then adjust the upper and lower limit contact indicator needle to the required given value.

7. The working temperature of thermometer should be 1/2~3/4 of the measuring range.

8. In any case (whether handling, installation or use, etc.), the thermometer shall be free from vibration, collision and impact.

9. If measuring the corrosive liquid, gas and steam to copper alloy, please indicate when ordering, using stainless steel capillary and thermoset.

10. If there are special requirements for the size of the thermoset, it can be customized.

Model Selection

WQYT	Gas Expansion Capillary Thermometer	
	Dial diameter	E.g. -100 (100mm), or -4". etc.
-	(Temperature range)	e.g. (0-100℃) or (0-200℉) etc.
-	Type	None: bottom installation connection Z: back installation connection T: edge installation connection
-	Material	-SS: SS case and SS wet parts -O: specified For SS (stainless steel) , please specified 304SS or 316SS.
-	Filling	D: dry DF: dry but can be filled N: vibration-proof glycerin filled
-	Output	None: without J: with electric contact output
-A	Installment type	1: fixed thread 2: slide adjustable thread 3: rotatable adjustable thread 0: customer specified
	Thermo well	None: without TW: with thermo well
-	Size of installment	e.g. for A1, -1/2BSP or -M20*1.5 etc.; for A3, -2" or 3" etc.
-	(Probe length)	E.g. -200 (200mm), or -8". etc.

Application:
Widely using and almost fit to any temperature indicating application.
And remote reading panel installations
Case: stainless steel
Ring: stainless steel
Window: glass
Dial and pointer: aluminum (pointer can be adjustable)
Movement: brass (stainless steel)
Capillary: copper alloy (stainless steel)
Amour: stainless steel.
Stem: stainless steel
Connection: 1/2"NPT (1/2"BSP)(fix or sliding)
Temperature range: -40-60℃~500℃

221AV

Available model for the size					
Model	2"(50mm)	2.5"(63mm)	3"(75mm)	4"(100mm)	6"(150mm)
221AL	●	●	●	●	●
221AB	●	●	●	●	●
221BL	●	●	●	●	●
221BB	●	●	●	●	●
221CL	●	●	●	●	●

Case: stainless steel
Ring: stainless steel
Window: glass
Dial and pointer: aluminum (pointer can be adjustable)
Movement: brass (stainless steel)
Capillary: copper alloy (stainless steel)
Stem: stainless steel
Connection: 1/2"NPT (1/2"BSP)(fix or sliding)
Temperature range: -40-60℃~500℃

Available model for the size		
Model	3"(75mm)	4"(100mm)
222AL	●	●
222AB	●	●
222BL	●	●
222BB	●	●

222AL

WQYT-ZT: back edge installation connection

WQYT-T: bottom edge installation connection

WQYT-J: with electric contact output