

The "bimetal" is a couple of metal plates, one put on top of another, which are different in coefficient of expansion with temperature. Fig.1(a) shows the initial state and Fig. 1(b) the state after temperature has varied. The displacement (d) is linked to a pointer to indicate the temperature. When temperature returns to the initial value, the bimetal is also restored to the initial condition. In practice, bimetal is used in the form of helix as shown and the bimetallic thermometer has the structures as illustrated

Features

Bimetallic thermometers are suitable for direct reading of temperature in the field as well as in the locations presently employing glass tube thermometer (e.g. around boilers, marine engines and others), because it is of simple structure and good durability. General Industry Applications : Chemical, electrical machinery, ship building, spinning, paper, iron and steel, mining, etc.

Other Applications : Used for boiler, refrigerator, food and farming, and a number of types are provided depending upon applications.



Ordering Codes

MODEL	DIA METER	TYPE	CONNECTION SIZE	RANGE	BULB DIA	BULB LENGTH	GRADE
SS-4061	Φ75	T	PT 1/2	-30 5 500	Φ6.4 Φ8	MAX 1000MM	± 2% F.S
SS-4062	Φ100						
SS-4063	Φ75	L					
SS-4064	Φ100						
SS-4065	Φ125	T					
SS-4066	Φ150						
SS-4062			BULB SIZE		RANGE		
			6.4 X 150		0 ~ 100		

Fig

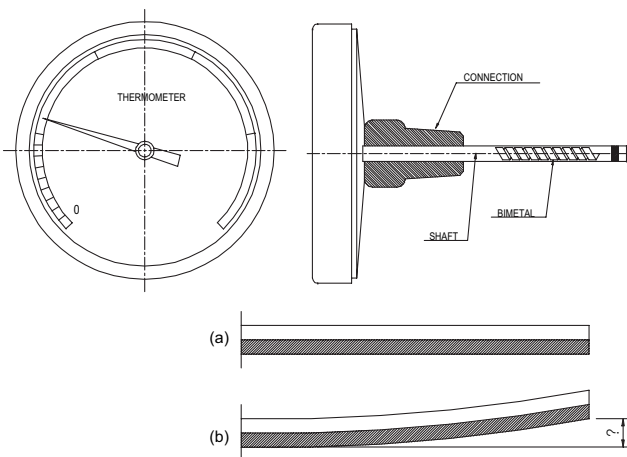


Fig. 1



Fig.2

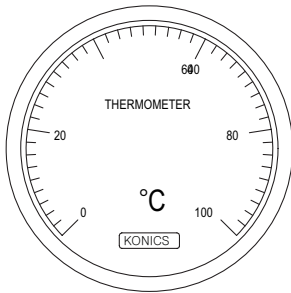
- A** Recorders
- B** Data Loggers
- C** Indicators
- D** Converters
- E** Controllers
- F** Thyristor Units
- G** Transmitters
- H** Temp. Sensors
- I** Thermo Meters
- J** Pressure Gauges
- K** Others

- SS-4010, SS-4020
- SS-4030 SS-4040
- SS-4050 SS-4060
- SS-4067 SS-4068
- SS-4070 SS-4080
- SS-4090 series

Specifications

Standard scales

Range (j/°C)	Standard Graduation	Size (mm)		
		75Dia	100Dia	150Dia
0 - 50		○	○	○
0 - 100		○	○	○
0 - 250		○	○	○
0 - 500		○	○	○
0 - 120		○	○	○
0 - 200		○	○	○
0 - 400		○	○	○
0 - 150		○	—	—
		—	○	○
0 - 300		○	—	—
		—	○	○
-20 - 100		○	○	○
-30 - 50		○	○	○



Ground color : White

Graduation : Black

though the graduation and numerals are for the temperature below zero red

□ Relation of range to diameter and length of bulb

Without thermo-well

Range (C°)	Min. graduation (C°)	Standard dia. & length of bulb dx L (d X L)	Length of sensing part (L)mm			Maximum
			Minimum insertion length (Standard)			
			d=6DIA	d=8DIA	d=10DIA	
-30-50	2	10DIA X 150	125	165(110)	120(85)	
-20-100	2	X 100	95	120(80)	90(65)	
0-50	1	X 100	185	240(140)	165(65)	
-100	2	X 100	105	140(85)	100(65)	500
-120	2	X 100	95	120(80)	90(65)	200 for sensing part dia
-150	2(5)*	X 100	80	105(65)	80(55)	of 6mm
-200	5	X 100	65	90(55)	70(50)	
-250	5	X 100	110	150(85)	110(65)	
-300	5(10)*	X 100	95	130(75)	100(60)	
-400	10	X 100	85	110(70)	80(55)	
-500	10	X 100	75	95(60)	75(50)	

The length in () are available by request.

Specifications

Relation of range to diameter and length of bulb

Without thermo-well

Range (C°)	Min. graduation (C°)	Standard dia. & length of bulb dx L (d X L)	Length of sensing part (L)mm		
			Minimum insertion length (Standard)		Maximum
			d1=12DIA.(d=8DIA.)	d1=15DIA.(d=10DIA.)	
-30~50	2	15DIA. X 150	190(135)	145(110)	500
-20~100	2	X 150	145(105)	115(90)	
0~50	1	X 200	265(165)	190(135)	
~100	2	X 150	165(110)	125(90)	
~120	2	X 150	145(105)	115(90)	
~150	2(5)*	X 100	130(90)	105(80)	
~200	5	X 100	115(85)	95(75)	
~250	5	X 150	175(110)	135(90)	
~300	5(10)*	X 150	155(100)	125(85)	
~400	10	X 100	135(95)	105(80)	
~500	10	X 100	120(85)	100(75)	

The length in () are available by request.

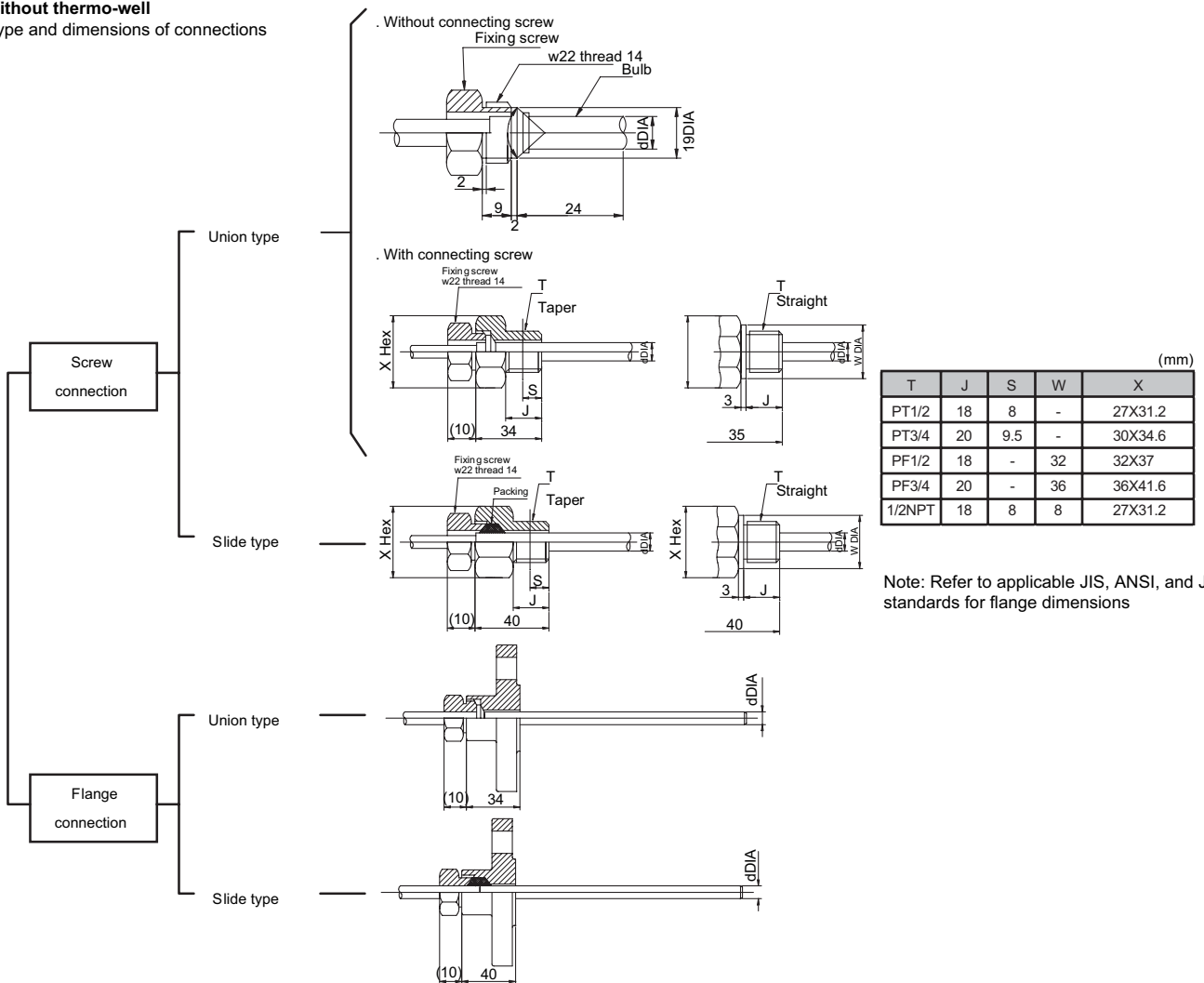
*The parenthesized are the value for TB13 or TB23(75DIA.)

Note : When the length of sensing part is specified, determine the length longer than the above required minimum insertion length in 5 mm step.

Dimensions

Without thermo-well

Type and dimensions of connections



A	Recorders
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I	Thermo Meters
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SS-4090 series

Dimensions

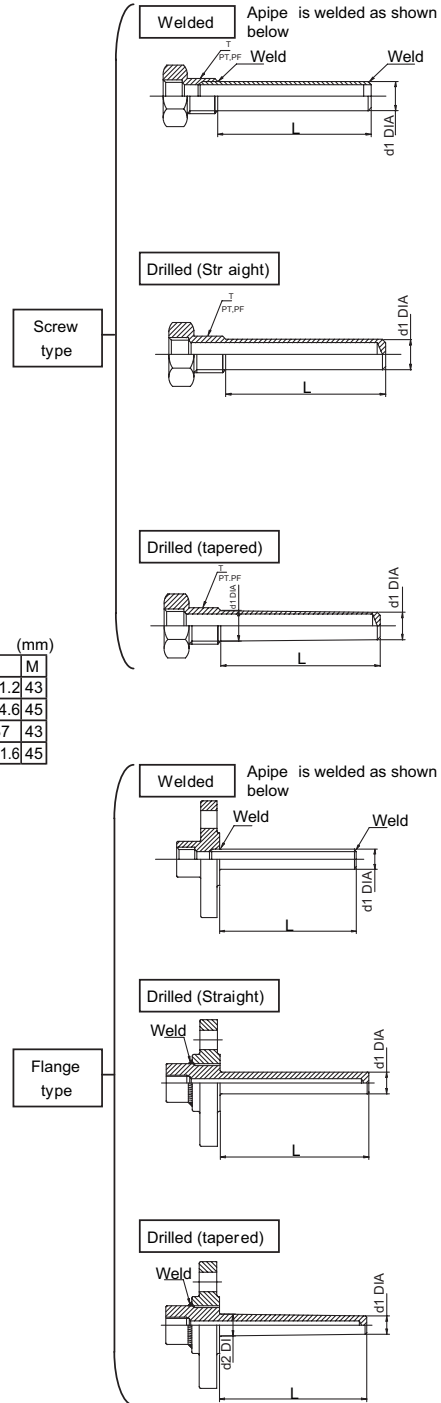
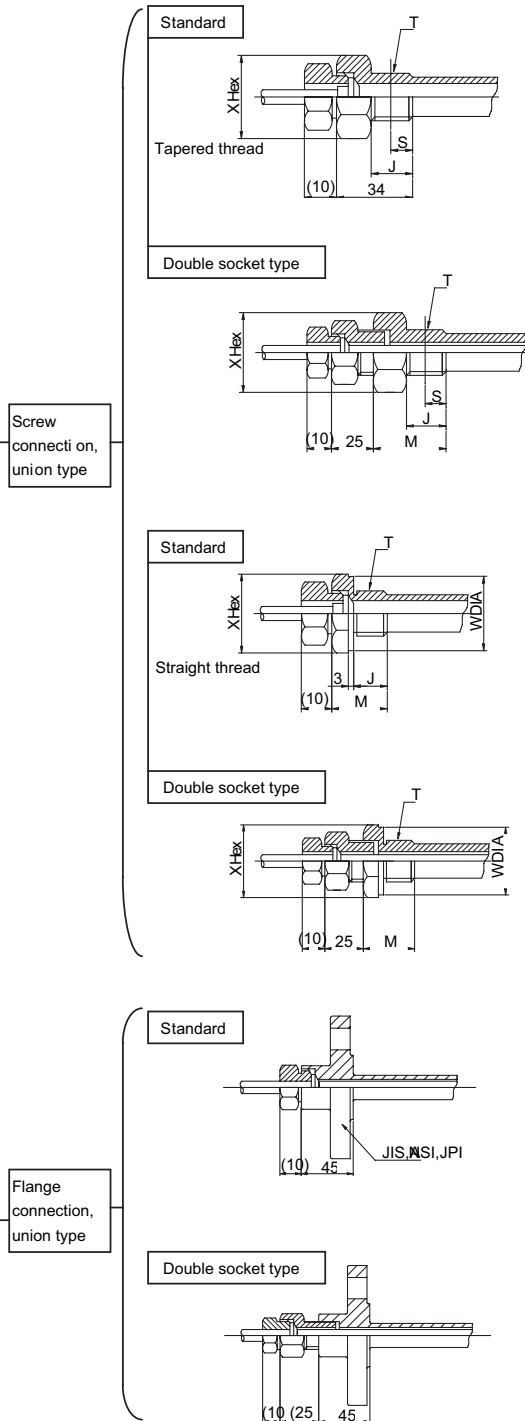
Relation between Diameter of Bulb, Type of connection and T (Screw and Flange Connections)

Bulb DIA. (d)	Types of connection		T		
	Union	Slide	Screw connection		Flange connection JIS, ANSI, JPI
			1/2	3/4	
6 DIA.	O	-	O	O	O
8 DIA.	O	O	O	O	O
10DIA.	O	O	O	O	O

Without thermo-well

Type and dimensions of connections

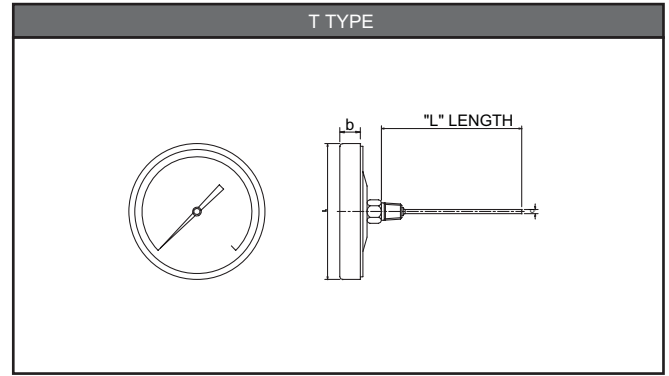
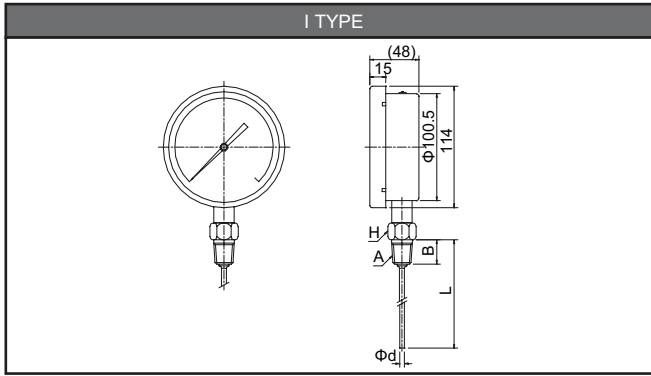
Types and dimension of thermo-well



(mm)

T	J	S	W	X	M
PT1/2	18	8	-	27X31.2	43
PT3/4	20	9.5	-	30X34.6	45
PF1/2	18	-	32	32X37	43
PF3/4	20	-	36	36X41.6	45

Note : Refer to JIS, ANSI, and JPI standards for flange dimensions



DIA METER	D	b	L	d
75 T	Φ 85	13	70 ~ 1000	6.4 Φ . 8
75 T	Φ 80	13		6.4 Φ . 8
100 T	Φ 112	13		6.4 Φ . 8
100 T	Φ 123	15		6.4 Φ . 8
125 T	Φ 146	12		6.4 Φ . 8
125 T	Φ 146	12		6.4 Φ . 8
150 T	Φ 173	15		6.4 Φ . 8

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Loggers

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