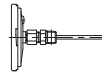


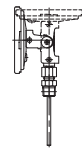
## RB44 Series Bimetal Thermometer



I-type



T-type



Free angle-type

### OUTLINE

This bimetal thermometers uses a bimetal which is composed of two types of metal with different thermal coefficients of expansion and they are wound into a helical form, change according to temperature is transmitted to the indicator, to indicate temperature.

### FEATURES

- Few error due to ambient temperature exists when compared with the liquid filled type.
- This thermometer is safe due to no charged liquid. (no environment pollution)
- This thermometer is simple in construction and reasonable priced.

\* When selecting a thermometer, select a thermometer which is normally applied to a temperature range of 30% to 60% of full scale. Check to confirm that the material of the wetted parts is appropriate to measuring gas or liquid.

#### Principle / Construction :

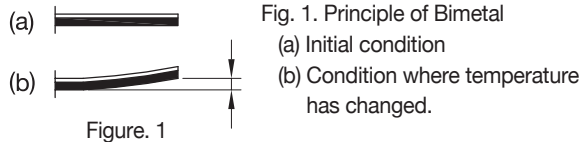


Figure. 1

Fig. 1. Principle of Bimetal

(a) Initial condition

(b) Condition where temperature has changed.



Figure. 2

Fig. 2. Bimetal of thermometer (Helical)

## SPECIFICATION

- **Model :** RB44 Series Bimetal Thermometer

- **Fluid :** Gas or Liquid

- **Case of construction :** IP65

- **Size :** 100 Dia.

- **Mounting :** T-type (Back mounting)

- **Connection size :**

3/8"PF, 3/8"PT, 3/8"NPT  
1/2"PF, 1/2"PT, 1/2"NPT  
3/4"PF, 3/4"PT, 3/4"NPT

\* For other connection, please contact us.

\* Flange connection is available. (Option)

- **Material :**

Case & Cover ----- 304SS, 316SS (Option)

Bulb & Connector ----- 304SS, 316SS (Option)

Sensing element ----- Bimetal (MF Std.)

- **Connection type :**

Union type & Slide type

- **Manufacturing range :**

-50 ~ 50°C → 0 ~ 600°C

\* 0 ~ 600°C (Request option)

- **Accuracy :**

±2.0% F.S. (Std.)

±1.0% F.S. (Request option)

- **Window :**

Glass, Safety glass (Option)

- **Dial scale specified :** (Request option)

Dual scale, Printed word, Colored circle

- **Bulb(Stem) dia. :**

ø 6.4, ø 8, ø 10 (Other size is option)

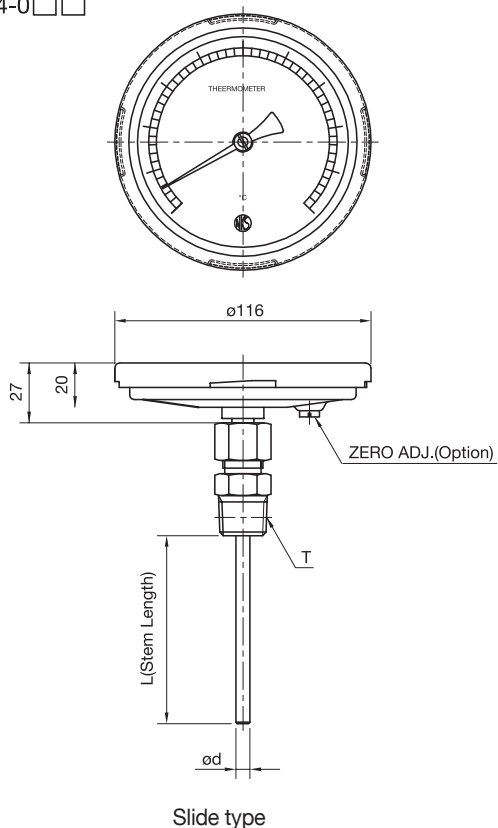
- **Thermowell :** (Request option)

- **Bulb(Stem) length :** See length table

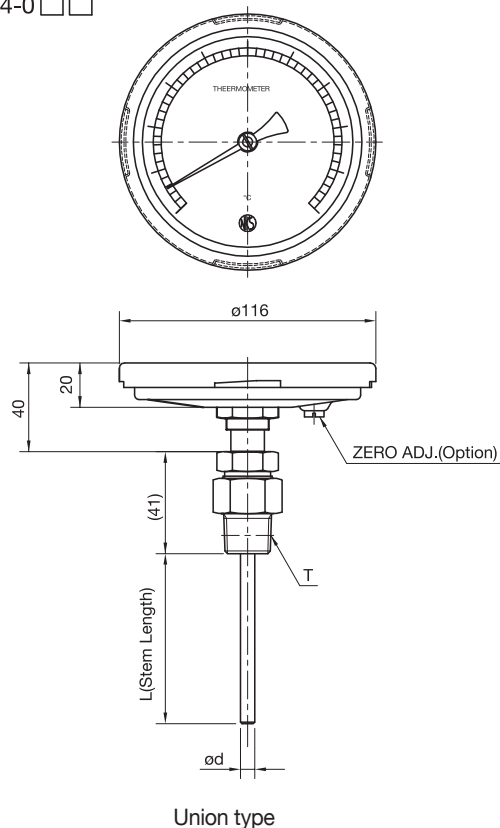
- **Weight :** Approx. 0.4kg

## Outline dimension & Mounting type (RB44 Series)

RB44-0□□



RB44-0□□



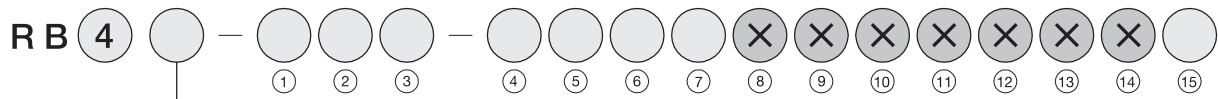
### Scale range · Stem dia. · Stem length table

Scale range (°C)	Minimum graduation °C	Order code	Standard accuracy	Stem length "L"					
				(Min.)			(Max.)		
				ø6.4	ø8	ø10	ø6.4	ø8	ø10
-50 ~ 50	2	A	±2.0% F.S. (±1.0%F.S.= Request option)	95	80	65	500	700	1400
-30 ~ 50	2	B		110	100	75	500	700	1400
-20 ~ 100	2	C		80	70	60	500	700	1400
-10 ~ 50	1	D		130	120	95	500	700	1400
0 ~ 50	1	E		150	140	115	500	700	1400
0 ~ 60	1	F		130	120	95	500	700	1400
0 ~ 80	2	G		110	110	80	500	700	1400
0 ~ 100	2	H		95	85	65	500	700	1400
0 ~ 120	2	I		80	65	60	500	700	1400
0 ~ 150	2	J		70	60	55	500	700	1400
0 ~ 200	5	K		60	55	50	500	700	1400
0 ~ 250	5	L		70	70	60	500	700	1400
0 ~ 300	5	M		65	65	50	500	700	1400
0 ~ 400	10	N		60	60	50	500	700	1400
0 ~ 500	10	O		70	70	50	500	700	1400
0 ~ 600	10	P		Option	50	50	50	500	700

- \* In case of 8mm and 10mm dia. bulb, if required more short up to the length in parenthesis.
- \* Above minimum insertion length is the one for without thermowell, 25mm to be increased to the above length.
- \* Above length is the minimum necessary length of bulb to be inserted into the fluid to be measured.
- \* Bulb length should be over the above length and specify 5mm steps.

## Model number configuration (RB44 Series)

\* For ordering, Please specify the model number and each spec.



Model		Selective spec.	Option
Dial size	4	100 Dia. "T" type	
① Thermowell	0	Without thermowell	
	1	With thermowell (Option)	
② Union type	0	Union type	
	1	Slide type	
③ Type of connection	0	PT1/2	
	1	PT3/4	
	2	NPT1/2	
	3	PF1/2	
	4	PF3/4	
	B	PT3/8	
	D	NPT3/4	
④ Range (°C)	A	Refer to range table	
	}		
	P		
⑤ Bulb material	1	304SS	
	2	316SS (Option)	
⑥ Bulb outer diameter	0	ø6.4 (Max. : 500L)	
	1	ø8 (Max. : 700L)	
	2	ø10 (Max. : 1400L)	
⑦ Bulb length (L)	1	From min. insertion length to Max. length (Up to 500mm for 6.4mm bulb)	
⑮ Document	0	Nil	
	1	Required	