

NESS

INDUSTRIAL THERMOMETER

BIMETAL TYPE

Model - TG1

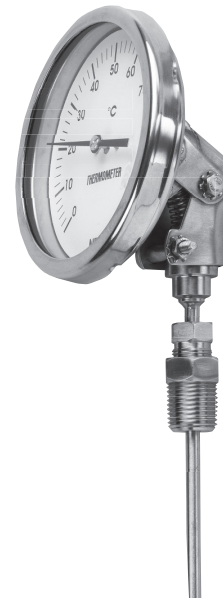
The Bimetal Thermometer employs a bimetal strip in the form of helix (It works on the principle of thermal expansion - two metals having different coefficient of expansions are joined to form a bimetal. The resultant expansion of bimetal is proportional to temperature. Bimetal Thermometers are simple in construction, yet rugged. They are used for measurement of temperature in most of the industrial application. They are offered in the range of -20°C to 500°C with rigid stem having bottom or back entry. It can also be offered in Every angle rotatable construction.

Special Features :

- Stainless steel case & stem
- Bottom / back / every angle entry
- Standard Followed EN 13190
- With or Without Thermowell
- Silicon filled up to 200°C (Optional)
- External Zero Adjustable (Optional)

Applications :

- Chemicals, Refinery
- Fertilizer, Petrochemicals
- Pharmaceutical, Power, Cement Industries.
- Sugar, Food & Beverages
- Pulp, Paper & Allied Process Industries
- Any other Industries which are having Corrosive media / Environment



Specifications

STANDARD VERSION : 63mm, 100mm, 125mm and 150mm

Accuracy	: Up to Class 1 as per EN 13190
Ambient temperature	: -25° C to +65° C
Over Range Limit	: 110% of Full Scale
Stem Diameter	: 8mm
Process Connection	: 1/2" NPT (M)

Case, Bezel & Clamp	: AISI 304 SS
Stem & Connection	: AISI 316 SS
Sensing Element	: Bi - Metal Strip coiled

Protection	: IP 65
Dial	: Aluminium, black graduation on white background
Pointer	: Aluminium, black coloured Slotted type for 100mm, 125mm, 150mm & Fixed for 63mm
Window	: Safety Glass
Gasket	: Neoprene

**SILICON FILLED VERSION
(OPTION SF)**

Accuracy	: Up to Class 1 as per EN 13190
Ambient Temperature	: Maximum 65° C
Window	: Plexi Glass
Damping Liquids	: Silicon Oil
Gasket & Filling Plug*	: Viton
Other Features	: Refer Specification of Standard Version

* For pricing of Gasket & Filling Plug of NBR, consult factory.

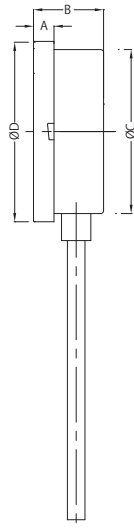
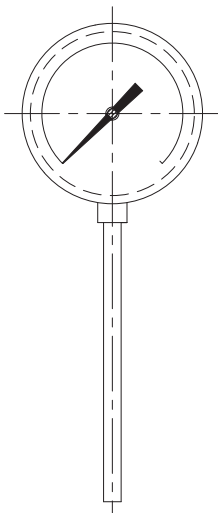
Nominal Ranges, Measuring Ranges & Limits of Error as per EN 13190

Nominal Range (In ° C)	Measuring Range (In ° C)
-20 to +40	-10 to +30
-20 to +60	-10 to +50
-20 to +120	-10 to +110
-30 to +30	-20 to +20
-30 to +50	-20 to +40
-30 to +70	-20 to +60
-40 to +40	-30 to +30
-40 to +60	-30 to +50
0 to 60	10 to 50
0 to 80	10 to 70
0 to 100	10 to 90
0 to 120	10 to 110
0 to 160	20 to 140
0 to 200	20 to 180
0 to 250	30 to 220
0 to 300	30 to 270
0 to 400	50 to 350
0 to 500	50 to 450

DIMENSIONS :- FOR STANDARD MODEL

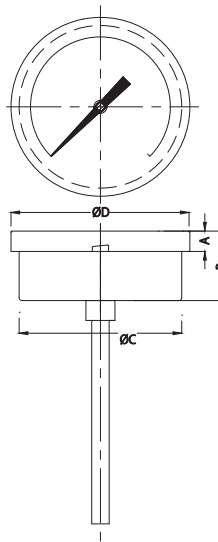
TYPE 11 TYPE 31 TYPE 51
DRAWING OF MODEL (TYPE WISE)

TYPE 11



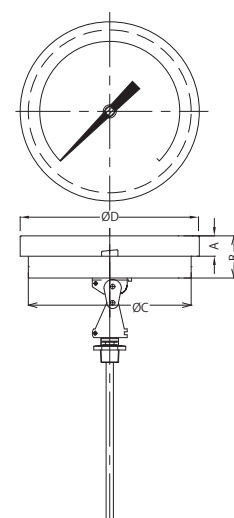
Size	A	B	ØC	ØD
63	12.5	46	66.5	77.5
100	12.5	47	100	111
125	15	48	119	131
150	15	49	149	161

TYPE 31



Size	A	B	ØC	ØD
63	9.5	16	60	69.5
100	9.5	18	100	111
125	10	20	119	131.5
150	15	25.5	149	161

TYPE 51



Size	A	B	ØC	ØD
100	12.5	19	100	111
125	15	23	119	129
150	15	23	149	161

SELECTION OF MODEL

(1) MODEL CODE

(2) DIAL SIZE

Dial Size	Code
63	2
100	4
125	5
150	6

(3) MOUNTING TYPE

Mounting Type	Code
DIRECT BOTTOM ENTRY	11
DIRECT CENTER BACK ENTRY	31
EVERY ANGLE BACK ENTRY	51



(4) GAUGE CONNECTION SIZE

1/2" BSP (M)	4BM	1/2" G (M)	4GM
1/2" BSPT (M)	4TM	1/2" R (M)	4RM
1/2" NPT (M)	4NM	3/8" R (M)	3RM
3/8" BSP (M)	3BM	3/8" G (M)	3GM
3/8" BSPT (M)	3TM	3/8" NPT (M)	3NM

Note :- OTHER OPTIONS WILL BE PROVIDED ON REQUEST. CONSULT FACTORY FOR MORE DETAILS.

(5) RANGE

REFER TO THE FOLLOWING TABLE

Code	In ° C	Code	In ° C	Code	In ° C
A	-20 to +40	J	0 to 60	S	0 to 400
B	-20 to +60	K	0 to 80	T	0 to 500
C	-20 to +120	L	0 to 100		
D	-30 to +30	M	0 to 120		
E	-30 to +50	N	0 to 160		
F	-30 to +70	O	0 to 200		
G	-40 to +40	P	0 to 250		
H	-40 to +60	Q	0 to 300		
I	-10 to +60	R	0 to 350		

(OTHER UNIT & DUAL SCALE CAN BE ARRANGED ON REQUEST.)

(6) PROCESS CONNECTION TYPE

AD	ADJUSTABLE TYPE
FX	FIXED TYPE

(7) STEM DIAMETER

6	6mm	10	10mm
8	8mm	12	12mm

(8) STEM LENGTH (Below thread) in mm.

Please specify in mm. (Refer Scale for Minimum & Maximum Stem Lengths)

(9) OPTIONS

CF	AISI 316 CASE & BEZEL	MC	MATERIAL TEST CERTIFICATE
CC	FIVE POINT CALIBRATION CERTIFICATE	EZ	EXTERNAL ZERO ADJUSTMENT (EXCEPT 63 mm)
TS	SS TAG PLATE	SF	DAMPENING LIQUID SILICON OIL FILLED
TD	DIAL TAG MARKING	DC	CUSTOM DESIGNED DIAL

Example	1	2	3	4	5	6	7	8	9
SELECTION OF MODEL	TG1	4	11	4NM	L	FX	10	XX	Option XX

TG1

4

11

4NM

L

FX

10

XX

XX

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