

# Bimetal Dial Thermometer

# General

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 dial thermometers are simple in construction, yet rugged. They are used for measurement of temperature in most of the industrial applications. They are offered in the range of (-) 50°C to 600°C. With rigid stem having bottom or back entry. It can also be offered in every angle rotatable construction.

## Features

- Rugged construction
- Bottom/Back entry, every angle construction
- Fast response
- Protection class IP-68
- Accuracy  $\pm 1\%$  FSD
- High repeatability, low hysteresis
- Hermetically sealed case

## Specifications

<b>Ref. Standard</b>	ASME B 40.200, EN 13190
<b>Dial</b>	100mm / 150mm / 250mm in aluminium white background, black markings
<b>Case</b>	SS304 with bayonet bezel / SS316 optional
<b>Protection</b>	Weatherproof to IP - 68 (IS/IEC : 60947 / IEC : 60529)
<b>Window</b>	Shatterproof glass
<b>Pointer</b>	Aluminium, black, micrometer adjustable
<b>Stem</b>	SS304 or SS316 in 6 mm, 8 mm, 10 mm, 12 mm dia and length from 100 mm to 1000 mm as standard
<b>Connection</b>	1/2" NPT (M) as standard in SS304 or SS316 adjustable three piece compression fitting
<b>Range</b>	(-) 50°C to 600°C with a minimum span of 60°C
<b>Accuracy</b>	$\pm 1\%$ FSD
<b>Over range</b>	125% FSD (upto max temp range of 500°C )
<b>Reset</b>	Micrometer Pointer (standard) External (optional)
<b>Optional</b>	1) Silicon Oil Filled Case (Suitable upto 339°C Max) 2) Contacts: Single SPST, normally open to close on rise / fall in temperature (specify action required) adjustable over the entire range, rating 30 VA @ 230 V AC (100 mm dial, back entry only )
<b>Note</b>	1) For minimum insertion length essential for proper sensing, contact our design department. 2) Three point calibration certificate accompanies each thermometer.



# Ordering Information

## MODEL : BDT



### MOUNTING

- V** Bottom Entry, Local Mounting
- C** Back Entry, Local Mounting
- E** Every Angle, Local Mounting

### DIAL

- 100** - 100 mm
- 150** - 150 mm
- 250** - 250 mm

### CASE

- S4S** SS304
- S6S** SS316

### STEM-OD

- S06** 6 mm      **S10** 10 mm
- S08** 8 mm      **S12** 12 mm

### STEM LENGTH

Specify in mm

### STEM MATERIAL

- S4S** - SS304
- S6S** - SS316
- 310** - SS310\*

### OPTION

- TW** Thermowell
- CLB** Colour Band
- DUS** Dual Scale
- 1ST** 1 SPST Electrical contact
- DC2** Silicon Oil Filled Case \*
- L** Nil

### UNIT

- DGC** Deg C      **DGF** Deg F

### RANGE \*\*

- |                  |          |
|------------------|----------|
| (-) 50 to (+) 30 | 0 to 200 |
| (-) 30 to (+) 50 | 0 to 250 |
| (-) 20 to (+) 60 | 0 to 300 |
| 0 to 60          | 0 to 350 |
| 0 to 80          | 0 to 400 |
| 0 to 100         | 0 to 500 |
| 0 to 120         | 0 to 600 |
| 0 to 160         |          |

\* Silicon Oil Filled Case shall be suitable up to maximum temperature of 339°C only.

\*\* Ranges mentioned are in °C. Equivalent unit in °F can be provided on request.

### CONNECTION

Conn	Code	Size	Code	Type	Code	Male/ Female	Code
Thread	<b>T</b>	1/4"	<b>06</b>	NPS	<b>NS</b>	Male	<b>M</b>
		3/8"	<b>10</b>	NPT	<b>NT</b>		
		1/2"	<b>15</b>	BSP	<b>BP</b>		
		3/4"	<b>20</b>	BSPT	<b>BT</b>		
		1"	<b>25</b>	JIS-PF	<b>PF</b>		
		M20	<b>M20</b>	JIS-PT	<b>PT</b>		
				Gas	<b>GS</b>		
				R	<b>RR</b>		
				Rp	<b>RP</b>		
				Pitch 1.5	<b>C</b>		

e.g. For 1/2"NPT(M), Code: **T15NTM**  
For M20x1.5 (F), Code: **TM20CF**

\*Note: Stem material of SS310 is recommended for Temperature 600 Deg. C

**Sample Model Code: BDT-E-150-S4S-S10-400-S6S-T15NTM-(0-250)-DGC-L**

The recommendations made in this catalogue are to be used as intended guide. No guarantee of material can be undertaken since other factors may affect the performance. We reserve the right to change the specifications mentioned in this catalogue without any notice as improvements & development is a continuous process at "General". Responsibility of typographical errors is specifically disclaimed.