

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

Ref. Standard	ASME B 40.200, EN 13190
Dial	100mm / 150mm / 250mm in aluminium white background, black markings
Case	SS304 with bayonet bezel / SS316 optional
Protection	Weatherproof to IP - 68 (IS/IEC : 60947 / IEC : 60529)
Window	Shatterproof glass
Pointer	Aluminium, black, micrometer adjustable
Stem	SS304 or SS316 in 6 mm, 8 mm, 10 mm, 12 mm dia and length from 100 mm to 1000 mm as standard adjustable three piece compression fitting
Connection	1/2" NPT (M) as standard in SS304 or SS316 adjustable three piece compression fitting
Range	(-) 50°C to 600°C with a minimum span of 60°C
Accuracy	$\pm 1\%$ FSD
Over range	125% FSD (upto max temp range of 500°C)
Reset	Micrometer Pointer (standard) External (optional)
Optional	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)
Note	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	T	1/4"	06	NPS	NS	Male	M F
		3/8"	10	NPT	NT	Female	
		1/2"	15	BSP	BP		
		3/4"	20	BSPT	BT		
		1"	25	JIS-PF	PF		
		M20	M20	JIS-PT	PT		
				Gas	GS		
				R	RR		
				Rp	RP		
				Pitch 1.5	C		

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.