

BT040

General industrial stainless steel bimetal thermometer (Class 1)



Product features:

- Thermometer with heavy duty stainless steel 304 case and bayonet style bezel
- Choice of temperature ranges, dial diameters and stem lengths
- Back entry, bottom entry or adjustable angle connections
- Recalibration screw (back connection and adjustable connection only)
- Stainless steel pockets can be supplied as extra.
Use of a thermowell (pocket) is always recommended
- Silicone filling available

Applications:

- Oil and gas
- Chemical and petrochemical
- Ventilation, heating and air conditioning
- Water and wastewater
- General industrial processes

Standard product specifications:

BT040	
Standards & categories	
Design	BS EN 13190 / ASME B40.200 Compliant
Dial construction	
Case	Stainless steel AISI 304
Bezel	Stainless steel AISI 304 - bayonet
Dial	Black numbering on white background
Connection orientation	Bottom, centre back or adjustable angle
Connection material	Stainless steel 316
Stem material	Stainless steel 316L
Pointer	Black aluminium
Sensor mechanism	Bimetal coil
Window	Glass (laminated safety glass optional)
Ranges & parameters	
Dial diameters	63mm (2.5"), 100mm (4"), 115mm (4.5") & 150mm (6")
Stem length	Min: 63mm / Max: 1000mm
Stem diameter	6.3mm, 8mm, 10mm or 12mm
Ranges	+50 to +650°C and +20 to +1000°F
Accuracy class	1% (as per BS EN 13190)
Filling	Dry or silicone filled (up to 300°C)
Protection	IP 67
Optional extras	
Calibration	Certificate traceable to recognised national standard or statement of conformity if required
Accessories	Pockets, self sealing test plugs

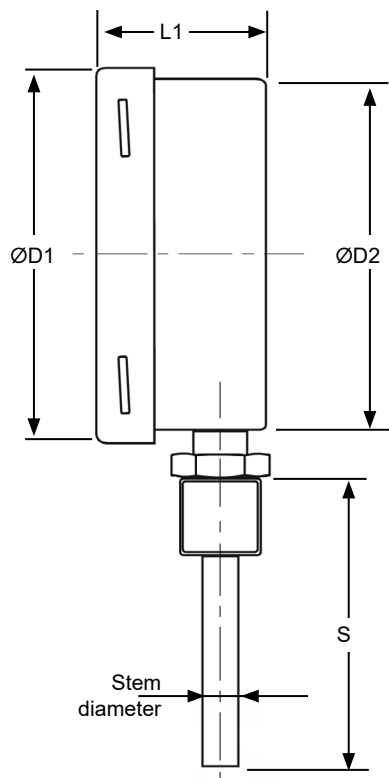
Note:

Loosen the screws on either side of the adjustable bracket before gently angling thermometer as required.
Tighten screws again before use.
See notes on page 4 of this document.

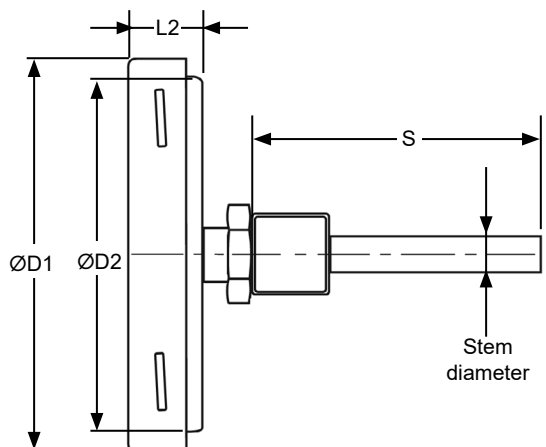
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Dimensions:

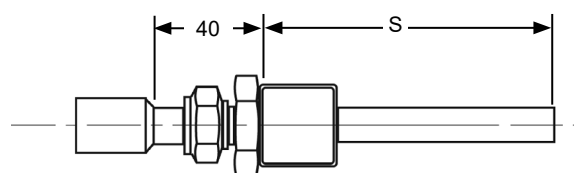
Bottom entry dial thermometer (fixed connection)



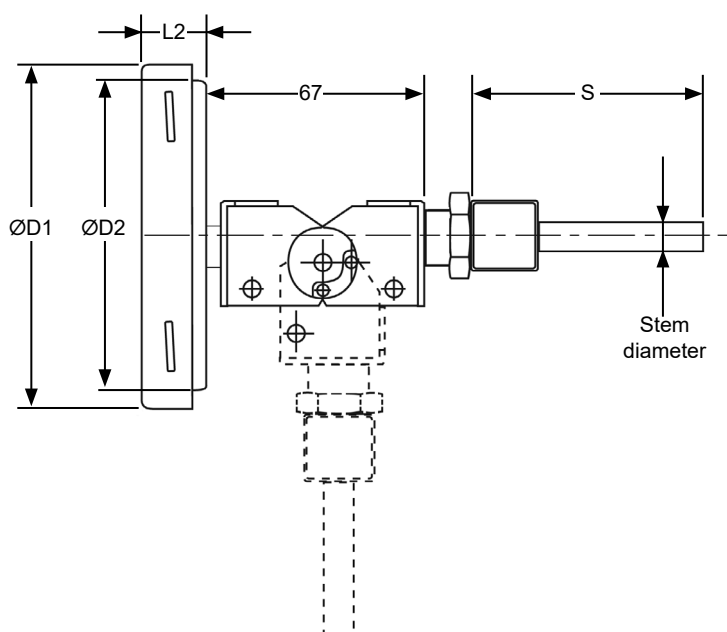
Back entry dial thermometer (fixed connection)



Sliding union connection



Adjustable dial thermometer (fixed connection)



S = stem length

Dial size	ØD1	ØD2	L1	L2
63	68.6	61.6	42.5	21.5
100	109.0	98.5	49.0	23.5
115	126.5	114.5	49.0	23.5
150	166.0	152.0	49.0	25.0

Minimum sensing length

Range °C	6.3mm	8mm	10mm	12mm
50	130	85	60	50
60	110	70	50	50
80	85	55	50	50
100	70	50	50	50
120	60	50	50	50
150	50	50	50	50
160	95	65	50	50
180	90	60	50	50
200	75	55	50	50
250	65	50	50	50
300	55	50	50	50
400+	50	50	50	50

Minimum sensing length refers to the thermometer stem length. If the thermometer is being used with a thermowell, the minimum sensing length refers to the thermowell U Length.

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Product numbers:

All BT040 dials are ordered to specific customer specifications. Please use below matrix to create your unique ordering product reference, using the values in bold.

Make	Model	Dial dia.	Range		Units	Stem length	Stem dia.	Connection size/type	Connection orientation	Extras			
Brannan (BRN)	BT040 (BT40)	63mm (63)	°C: -50+150	°F: -60+300	°C outer / °F inner (CF)	63mm to 1000mm	6.3mm (6)	Plain stem (0)	Bottom (BO)	Laminated safety glass (LG)			
			-50+100	-60+212				Fixed 1/2" BSP (7)					
		100mm (100)	-50+50	-60+120	°F outer / °C inner (FC)		8mm (8)	Fixed 1/2" NPT (8)	Centre back (CB)	SS316L thermowell (TW316L)			
			-40+40	-40+100				Fixed 3/8" BSP (5)					
			-40+60	-40+140	°C only (C)		10mm (10)	Fixed 3/8" NPT (6)	Adjustable angle (AD)	Materials test certificate (MTC)			
		115mm (115)	-40+160	-40+320				Fixed 1/4" BSP (3)					
			-30+50	-20+120	°F only (F)		12mm (12)	Fixed 1/4" NPT (4)					
			-30+70	-20+160				Fixed 1/4" BSPT (10)					
		150mm (150)	-20+40	+0+100				Fixed 3/8" BSPT (11)					
			-20+60	+0+140				Fixed 1/2" BSPT (12)					
			-20+180	+0+350				Sliding union 1/2" BSP (S7)					
			-10+50	+10+120				Sliding union 1/2" NPT (S8)					
			-10+110	+10+230				Sliding union 3/8" BSP (S5)					
			0+50	+32+120				Sliding union 3/8" NPT (S6)					
			0+60	+32+140				Sliding union 1/4" BSP (S3)					
			0+80	+32+180				Sliding union 1/4" NPT (S4)					
			0+100	+32+212				Sliding union 1/4" BSPT (S10)					
			0+120	+32+250				Sliding union 3/8" BSPT (S11)					
			0+150	+32+300				Sliding union 1/2" BSPT (S12)					
			0+160	+32+320									
			0+200	+32+400									
			0+250	+32+500									
			0+300	+32+570									
			0+400	+32+750									
			0+450	+32+840									
			0+500	+32+930									
			0+550	+32+1000									
			0+600	+32+1110									
		NB. Others available on request								* Bottom connection not for 63mm.	* Not for bottom entry. Max range up to 300°C. Max ambient temp 60°C		
											NB. When more than one extra is required, please separate each code with a hyphen when building your product reference.		

Order example:

Make	Model	Dial dia.	Range	Units	Stem length	Stem dia.	Connection size/type	Connection orientation	Extras
BRN	BT40	100	-50+150	CF	200	10	7	AD	LG-TW316L

Product reference: BRNBT40/100/-50+150/CF/200/10/7/AD/LG-TW316L

Please note: These instruments are not supplied with thermowells (pockets) as standard. If thermowell is required, this must be added in the extras column, ie TW316L.

Calibration product numbers:

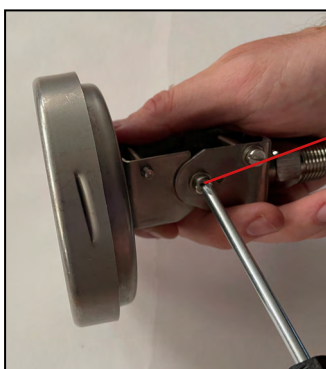
Calibration	No of points	Product number
Traceable to National Standards	1pt	49/099/0
	3pt	49/101/0
	4pt	49/104/0
	5pt	49/105/0

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Please read before attempting to change angle of adjustable angle bimetal thermometers.

Setting the connection angle



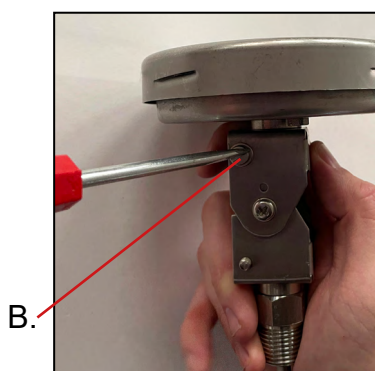
To adjust the thermometer face display angle, firstly, loosen off screws A. on either side of the adjustable bracket.



Set the thermometer face to the required angle. Retighten the screws.

Face alignment

Before rotating the thermometer face ensure the thermometer is set in the back connection alignment. Never rotate the thermometer face when the bracket is set in an angled alignment.



Loosen off the screws B. on either side of the adjustable bracket.



Holding both the thermometer face and the adjustable bracket, rotate the thermometer face to the desired position. No more than minimum force should be required. Retighten the screw(s).