

Bimetal Thermometers, Every Angle

Crimped-on ring case stainless steel, turnable and adjustable

TBiGelChg 5"
TBiGelChgG 5"

Standard Versions

These thermometers are manufactured according to ASME B40.200, especially concerning the accuracy and the temperature ranges. Further information on selection and metrological features (e.g. temperature resistance) can be found in model overview 8000.

Measuring Unit

Bimetal coil

Accuracy (ASME B40.200)

Grade A $\pm 1\%$ of the measuring range

Case

With polished crimped-on ring, stainless steel 304

Degree of Protection (DIN EN 60 529/IEC 529)

IP65

Case Filling

For model TBiGelChgG

Temperature ranges:

from 0 °F up to +210 °F: glycerin

from -40 °F and above +210 °F up to +480 °F: silicone oil

Nominal Case Size

5"

Case Configuration

Connection temperature

sensor (stem):

pivot (every angle)

Stem position:

centre back position,

compared to case approx. 135°

adjustable and 360° turnable

Mounting device:

without

Temperature Ranges (ASME B40.200)

Spans from 110 °F to 900 °F

Measuring range = indication range

Temperature Sensor (Stem)

Made of stainless steel 316Ti

Max. static operating pressure: 25 bar

Stem models: B1 or B4.1

Stem Ø dF: ¼" (6.35 mm), ⅜" (8 mm) or

⅝" (9.52 mm)

Stem length L: from Lmin up to 16" (400 mm)

Please regard the minimum stem length depending on the active length (La) and stem model, see page 2

Window

Instrument glass

Dial

Aluminum white, scale black

Pointer

Aluminum black

Indication Adjustment ($\pm 4\%$)

Externally via screw



Ordering Information, Standard Ranges, Options

See page 3

Special Versions and Further Options

- Other stem models, connection threads and materials upon request
- Other temperature ranges and/or special scales, e.g. dual scale °C/°F, coloured fields or ranges, dial inscriptions
- Case parts stainless steel 316L (1.4404) upon request
- TBiGelChg, TBiGelChgG for ambient temperatures to -76 °F

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Stem Models, Dimensional Data and Weights

Stem Models											
	B1	B4.1									
Process connection	without screw fitting, plain stem	male thread, rigid									
		<table border="1"> <thead> <tr> <th>G</th> <th>SW</th> <th>i</th> </tr> </thead> <tbody> <tr> <td>1/2" NPT</td> <td>1.07"</td> <td>0.75"</td> </tr> <tr> <td>3/4" NPT</td> <td>1.07"</td> <td>0.75"</td> </tr> </tbody> </table>	G	SW	i	1/2" NPT	1.07"	0.75"	3/4" NPT	1.07"	0.75"
G	SW	i									
1/2" NPT	1.07"	0.75"									
3/4" NPT	1.07"	0.75"									

Dimensional Data (inch) and Weights (lb)										
NCS	b1	D	D1	d6	d7	f1	f3	s4	(approx.) weight ¹⁾	
									TBiGelChg 5"	TBiGelChgG 5"
5"	0.8	5.35	4.92	0.47	0.55	2.36	1.46	0.32	1.08	1.43

Minimum Stem Length and Active Length			Stem Ø dF:					
			1/4" (6.35 mm)			5/16" (7.94 mm)		3/8" (9.52 mm)
			Span (temperature difference) ΔT ²⁾					
Stem model:	Length:	Thread:	≥ 180 °F	= 150 °F	= 110 °F	≥ 150 °F	= 110 °F	all
all models	L _a	–	1.6"	2.4"	2.8"	1.6"	2.4"	2.2"
B1	L _{min}	–	1.8"	2.6"	3.0"	1.8"	2.6"	2.4"
B4.1	L _{min}	1/2" NPT; 3/4" NPT	2.35"	3.15"	3.55"	2.35"	3.15"	3.0"
others			upon request					

The minimum length L_{min} is the smallest feasible stem length.
 Important: Please note the technical information sheet T08-000-031 on the metrologically optimal stem length.

The active length L_a is the temperature-sensitive part of the stem.

¹⁾ The data are examples and relate to the version with stem B1, Ø dF 5/16", L=3.94".

²⁾ The temperature difference ΔT = 150 °F corresponds e.g. to the temperature range 0–150 °F but also –30/+120 °F, see table page 3.

Ordering Information

Basic Model: Bimetal Thermometer Every Angle		TBiGelChg	
Case filling:	depending on version glycerin or silicone oil	G	
Nominal case size:	case Ø 5"	5"	
Stem position / case configuration:	centre back position, with pivot (every angle)	without code letters	
Temperature ranges:	scale: ΔT (°F):		
	0 – 150 °F	150	
	0 – 200 °F	200	
	0 – 250 °F	250	e.g. 0–250 °F
	0 – 300 °F	300	
	–50 / +130 °F	180	
	–40 / +160 °F	200	
	–30 / +120 °F	150	e.g. –30/+120 °F
	–10 / +100 °F	110	
	+20 / +240 °F	220	
	+30 / +140 °F	110	
	+40 / +400 °F	360	
	+50 / +300 °F	250	
	+50 / +500 °F	450	
	+100 / +800 °F	700	
+100 / +1000 °F	900		
+150 / +700 °F	550		
Stem:	without screw fitting, plain stem	B1	
	male thread, rigid	B4.1	
Stem Ø dF:	¼", ⅜", ½"	dF = ¼"	
Stem length:	L in "	e.g. L = 10"	
Process connection:	½" NPT or ¾" NPT	e.g. ¼" NPT	
Options:	red mark	on the dial	
	plastic clip	red or green, external at crimped-on ring	
	window	tempered safety glass	
	case polished		
	case filling temperature ranges from 0 °F to 210 °F: silicone oil		
	stem length > 16" (400 mm), max. 32" (800 mm)		
	instrument tag	stainless steel plate 12x55 mm (0.47x2.17") with wire mounting or sticker upon the case	

Example: TBiGelChg 5", –30/+120 °F, B4.1, dF = ⅜", L = 10", ½" NPT

Special Versions: Please describe your requirements in cleartext!