

**Description & Features:**

- A general purpose, versatile 1" (25mm) to 6" (150mm) dial, 304 stainless steel thermometer
- Bi-metallic sensing element for reliable readings
- Back, bottom or adjustable angle connection
- Welded stem length from 2.5" (63mm) and up
- $\pm 1\%$ accuracy
- Anti-parallax dial that reduces operator reading errors
- External recalibration screw is standard on the 2" (50mm) to 6" (150mm) dials
- 5 year warranty

Applications:

- Industrial process, heating and air conditioning, ventilation and wastewater

Specifications

Dial	1" (25mm), 2" (50mm): Aluminum with black markings, flat dial 3" (75mm), 4" (100mm), 5" (125mm), 6" (150mm): aluminum with black markings, anti-parallax dial
Case	AISI 304 SS
Stem	AISI 304 SS welded to socket, centre back, bottom or adjustable angle configurations (316 SS optional*) 2" (50mm) dial: centre back connection only
Recalibrator	Standard**
Lens	1" (25mm): Acrylic Others: Glass standard, hermetically sealed
Ring	AISI 304 SS
Connection	1" (25mm): None 2" (50mm): $\frac{1}{4}$ " NPT standard 3" (75mm), 4" (100mm), 5" (125mm), 6" (150mm): $\frac{1}{2}$ " NPT standard
Sensing Element	Bi-metallic coil
Pointer	Aluminum, painted black
Maximum Operating Pressure	125 psi (861 kPa)
Operating Temperature	75% of full scale value (recommended maximum)
Ambient Temperature	-58°F to 248°F (-50°C to 120°C)
Accuracy	$\pm 1\%$ of full scale
Enclosure Rating	IP68

*Contact Winters for 316 SS requirements

**Not available on 1" pocket and 2" laboratory thermometer

Note: The use of a thermowell is recommended to protect the thermometer in corrosive or pressure applications, as well as to maintain a closed system during its removal from the process

TBM Bi-Metal Thermometer

To order, specify the code for each dial/stem length and the range: i.e. TBM20025 - B26

Dial Size	Stem Length	Fixed Centre Back	Bottom	Adjustable Angle
1" (25mm) pocket thermometer	5" (125mm)	TBM10050	-	-
2" (50mm) lab thermometer	8" (200mm)	TBM20080	-	-
2" (50mm)	2.5" (63mm)	TBM20025	-	-
	4" (100mm)	TBM20040	-	-
	6" (150mm)	TBM20060	-	-
	9" (225mm)	TBM20090	-	-
	12" (300mm)	TBM20120	-	-
3" (75mm)	2.5" (63mm)	TBM30025	TBM31025	TBM32025
	4" (100mm)	TBM30040	TBM31040	TBM32040
	6" (150mm)	TBM30060	TBM31060	TBM32060
	9" (225mm)	TBM30090	TBM31090	TBM32090
	12" (300mm)	TBM30120	TBM31120	TBM32120
4" (100mm)	2.5" (63mm)	TBM40025	TBM41025	TBM42025
	4" (100mm)	TBM40040	TBM41040	TBM42040
	6" (150mm)	TBM40060	TBM41060	TBM42060
	9" (225mm)	TBM40090	TBM41090	TBM42090
	12" (300mm)	TBM40120	TBM41120	TBM42120
5" (125mm)	2.5" (63mm)	TBM50025	TBM51025	TBM52025
	4" (100mm)	TBM50040	TBM51040	TBM52040
	6" (150mm)	TBM50060	TBM51060	TBM52060
	9" (225mm)	TBM50090	TBM51090	TBM52090
	12" (300mm)	TBM50120	TBM51120	TBM52120
6" (150mm)	2.5" (63mm)	TBM60025	TBM61025	TBM62025
	4" (100mm)	TBM60040	TBM61040	TBM62040
	6" (150mm)	TBM60060	TBM61060	TBM62060
	9" (225mm)	TBM60090	TBM61090	TBM62090
	12" (300mm)	TBM60120	TBM61120	TBM62120

Available Ranges					
°F & °C (Dual)	Code	°F only	Code	°C Only	Code
-100°F to 150°F & -70°C to 70°C	B1	-40°F to 120°F	B14	-80°C to 50°C	B26
-40°F to 120°F & -40°C to 50°C	B2	-40°F to 160°F	B15	-50°C to 50°C	B27
0°F to 140°F & -20°C to 60°C	B3	0°F to 140°F	B16	0°C to 50°C	B28
-40°F to 160°F & -40°C to 70°C	B4	0°F to 200°F	B17	-50°C to 100°C	B29
25°F to 125°F & - 5°C to 50°C	B5	20°F to 240°F	B18	0°C to 100°C	B30
14°F to 140°F & -10°C to 60°C	B37	14°F to 140°F	B38	-10°C to 60°C	B40
0°F to 200°F & -20°C to 90°C	B6	0°F to 250°F	B19	-20°C to 120°C	B31
20°F to 240°F & - 5°C to 115°C	B7	50°F to 300°F	B20	0°C to 150°C	B32
0°F to 250°F & -20°C to 120°C	B8	50°F to 400°F	B21	0°C to 200°C	B33
50°F to 300°F & 10°C to 150°C	B9	50°F to 550°F	B22	0°C to 300°C	B34
50°F to 400°F & 10°C to 200°C	B10	150°F to 750°F	B23	0°C to 450°C	B35
50°F to 500°F & 10°C to 260°C	B11	0°F to 800°F	B24	100°C to 550°C	B36
150°F to 750°F & 100°C to 400°C	B12	200°F to 1,000°F	B25	0°C to 120°C	B37
200°F to 1,000°F & 100°C to 540°C	B13	-	-	0°C to 400°C	B38
-	-	-	-	100°C to 400°C	B41
-	-	-	-	100°C to 540°C	B42
-	-	-	-	-30°C to 70°C	B45
-	-	-	-	20°C to 120°C	B46
-	-	-	-	-70°C to 170°C	B47

Other ranges, stem lengths and connection sizes available upon request. For glycerin fill, maximum temperature limit is 300°F (150°C). Silicone fill available.

Option suffix:

AP3 = 3" acrylic lens
AP4 = 4" acrylic lens
AP5 = 5" acrylic lens
AP6 = 6" acrylic lens

BG3 = 3" glycerin filling
BG4 = 4" glycerin filling
BG5 = 5" glycerin filling
BG6 = 6" glycerin filling

DUCT = Aluminum duct flange
SCK = Socket conversion kit
SPG3 = 3" Shatterproof glass lens
SPG5 = 5" Shatterproof glass lens

Note: The use of a thermowell is recommended to protect the thermometer from corrosive or damaging environments, as well as to maintain a closed system during its removal from the process

Order Codes (products in bold are normally in stock)

1" (25mm) Dial, Fixed Centre Back	
Temperature Range	5" Stem Length Code
0°F to 250°F&C	TBM10050B8
-40°F to 160°F	TBM10050B15
0°F to 200°F	TBM10050B17
0°F to 250°F	TBM10050B19

2" (50mm) Dial, Fixed Centre Back		
Temperature Range	2.5" Stem Length Code	4" Stem Length Code
-40°F to 120°F&C	TBM20025B2	-
0°F to 140°F&C	TBM20025B3	-
0°F to 200°F &C	TBM20025B6	-
20°F to 240°F&C	-	TBM20040B7
0°F to 250°F&C	TBM20025B8	TBM20040B8
50°F to 300°F&C	TBM20025B9	-
50°F to 400°F&C	TBM20025B10	-
50°F to 500°F&C	TBM20025B11	TBM20040B11

3" (75mm) Dial, Fixed Centre Back				
Temperature Range	2.5" Stem Length Code	4" Stem Length Code	6" Stem Length Code	9" Stem Length Code
-40°F to 120°F&C	TBM30025B2	TBM30040B2	TBM30060B2	TBM30090B2
0°F to 140°F&C	TBM30025B3	-	-	-
-40°F to 160°F&C	TBM30025B4	TBM30040B4	TBM30060B4	-
0°F to 200°F&C	TBM30025B6	TBM30040B6	TBM30060B6	-
20°F to 240°F&C	TBM30025B7	TBM30040B7	TBM30060B7	TBM30090B7
0°F to 250°F&C	TBM30025B8	TBM30040B8	TBM30060B8	TBM30090B8
50°F to 300°F&C	TBM30025B9	TBM30040B9	TBM30060B9	TBM30090B9
50°F to 400°F&C	TBM30025B10	TBM30040B10	TBM30060B10	-
50°F to 500°F&C	TBM30025B11	TBM30040B11	TBM30060B11	TBM30090B11
150°F to 750°F&C	-	TBM30040B12	TBM30060B12	TBM30090B12
200°F to 1,000°F&C	TBM30025B13	TBM30040B13	-	TBM30090B13
-40°F to 120°F	-	TBM30040B14	-	-
20°F to 240°F	-	TBM30040B18	-	-
0°F to 250°F	TBM30025B19	TBM30040B19	TBM30060B19	-
0°C to 100°C	TBM30025B30	-	-	-
0°C to 300°C	TBM30025B34	-	-	-

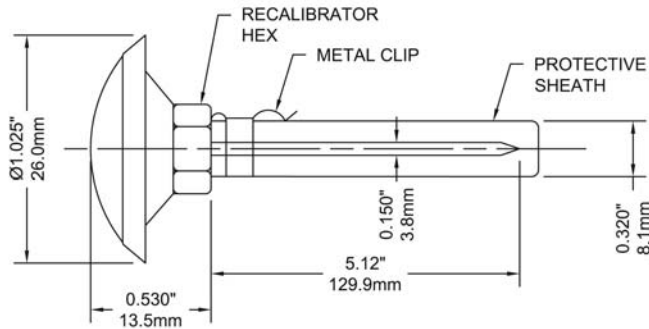
3" (75mm) Dial, Bottom		
Temperature Range	2.5" Stem Length Code	4" Stem Length Code
20°F to 240°F&C	TBM31025B7	TBM31040B7
0°F to 250°F&C	TBM31025B8	TBM31040B8
50°F to 500°F&C	TBM31025B11	-
0°F to 200°F	TBM31025B17	-
0°F to 100°C	TBM31025B30	-

3" (75mm) Dial, Adjustable Angle				
Temperature Range	2.5" Stem Length Code	4" Stem Length Code	6" Stem Length Code	9" Stem Length Code
-40°F to 120°F&C	TBM32025B2	-	-	-
0°F to 140°F&C	TBM32025B3	TBM32040B3	TBM32060B3	-
-40°F to 160°F&C	TBM32025B4	TBM32040B4	TBM32060B4	TBM32090B4
0°F to 200°F&C	TBM32025B6	TBM32040B6	TBM32060B6	TBM32090B6
20°F to 240°F&C	TBM32025B7	TBM32040B7	TBM32060B7	TBM32090B7
0°F to 250°F&C	TBM32025B8	TBM32040B8	TBM32060B8	-
50°F to 300°F&C	TBM32025B9	-	-	-

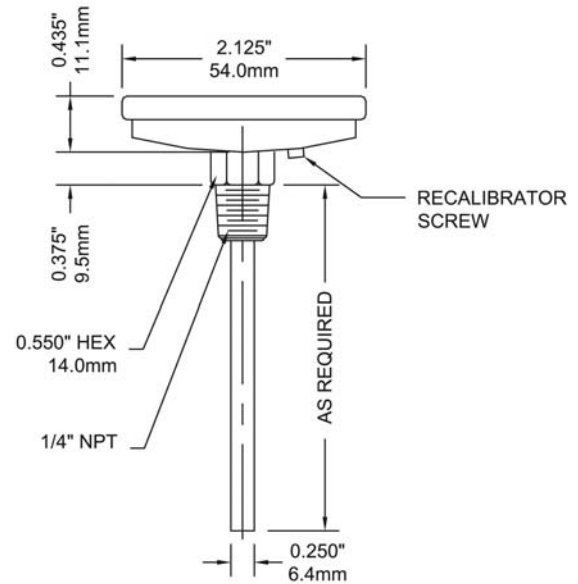
5" (125mm) Dial, Adjustable Angle				
Temperature Range	2.5" Stem Length Code	4" Stem Length Code	6" Stem Length Code	9" Stem Length Code
0°F to 140°F&C	TBM52025B3	TBM52040B3	TBM52060B3	-
0°F to 200°F&C	TBM52025B6	TBM52040B6	TBM52060B6	-
20°F to 240°F&C	TBM52025B7	TBM52040B7	TBM52060B7	-
0°F to 250°F&C	TBM52025B8	TBM52040B8	TBM52060B8	TBM52090B8
50°F to 300°F&C	TBM52025B9	TBM52040B9	TBM52060B9	-
50°F to 400°F&C	-	-	-	-

TBM Bi-Metal Thermometer

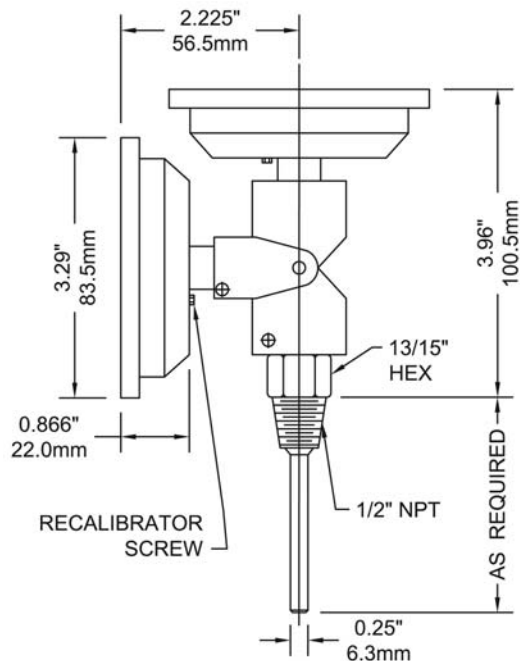
1" Back Connection



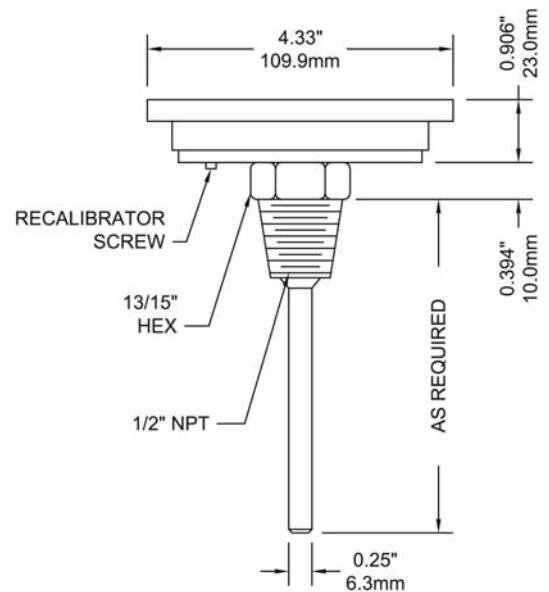
2" Back Connection



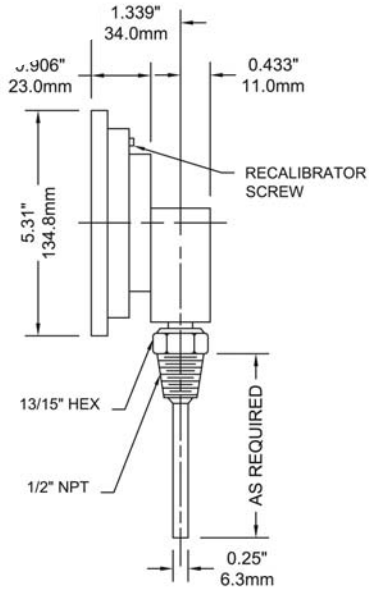
3" Adjustable Angle Connection



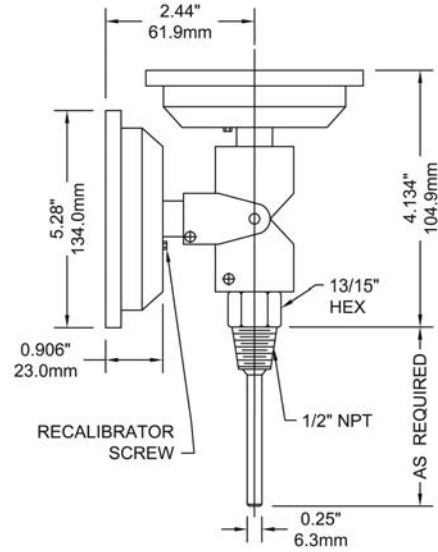
4" Back Connection



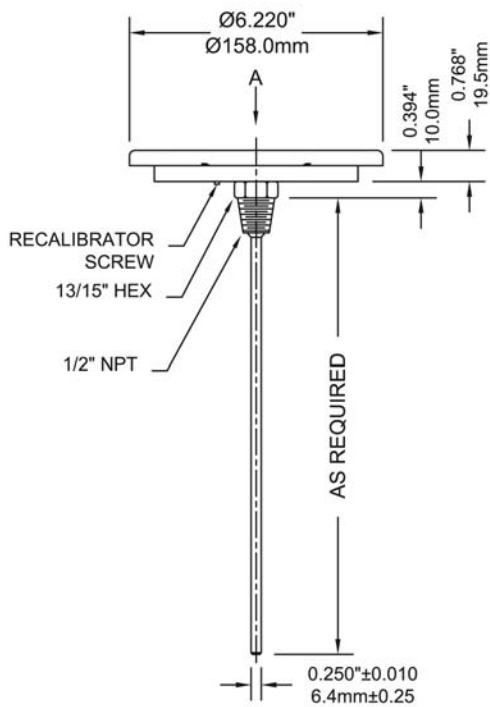
5" Bottom Connection



5" Adjustable Angle Connection



6" Back Connection



6" Bottom Connection

