

# Bi-Metal Thermometer

**NEW  
4"  
SIZE**



## Description

Bi-Metal Thermometers are measuring instruments used to indicate temperature. The name Bi-Metal is derived from the thermometers construction. The Bi-Metal Thermometer has two thin strips of metal with different degrees of heat co-efficient. The two metal strips are bonded together and form a helix or coil, which in turn, is attached to a pointer on a dial. When the temperature increases or decreases the two strips of metal react differently and cause movement in the coil which moves the pointer on a dial thereby indicating the temperature.

Winters' Bi-Metal Thermometers are easy to read, hermetically sealed (waterproof), and have a recalibrator-reset screw to adjust the pointer if necessary. The Bi-Metal thermometer case and stem are made of 304 stainless steel.

Winters Bi-Metal Thermometers are designed to provide fast and accurate temperature readings for most industrial applications (eg. HVAC applications, food applications, etc.) A hermetically sealed, dished shaped dial prevents parallax error when a temperature reading is taken.

When vibration exists, liquid filling is available to dampen pointer movement. For food and other applications where glass is not permitted, an acrylic lens is available.

(\* For pressures above 125 psi (861 kPa) it is recommended that a Winters Thermowell be used in conjunction with the Bi-Metal Thermometer.)

\*\* N/A on 3" bottom.

## Specifications

<b>Dial:</b>	2" (50mm), 3" (75mm), 4" (100mm) and 5" (125mm) dials, aluminum with black markings, dished shaped
<b>Case:</b>	AISI 304 stainless steel
<b>Lens:</b>	Glass standard, hermetically sealed
<b>Ring:</b>	AISI 304 stainless steel
<b>Pointer:</b>	Brass, painted black
<b>Movement:</b>	Bi-metallic coil
<b>Stem:</b>	AISI 304 stainless steel, centre back, bottom or adjustable angle configurations (note: 2" (50mm) dial only available with centre back connection)
<b>Connection:</b>	$\frac{1}{4}$ " NPT standard for 2" (50mm) dial $\frac{1}{2}$ " NPT standard for 3" (75mm), 4" (100mm) and 5" dials (125mm)
<b>Welding:</b>	TIG
<b>Recalibrator:</b>	Standard**
<b>Maximum Operating Pressure:</b>	125 psi (861 kPa)*
<b>Ambient Temperature:</b>	-58°F - 248°F (-50°C - 120°C)
<b>Operating Temperature:</b>	Recommended maximum 75% of Full scale value
<b>Accuracy:</b>	± 1% full scale
<b>Protection:</b>	IP65



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## How to order: Specify product code

Dial Size	Stem length	Product #:		
		Fixed Center Back	Bottom	Adjustable Angle
1"(25mm) (Pocket thermometer)	5"(125mm)	T10050	N/A	N/A
2"(50mm) (Lab thermometer)	8"(200mm)	T20080	N/A	N/A
2"(50mm)	2.5"(63mm)	T20025	N/A	N/A
	4"(100mm)	T20040	N/A	N/A
	6"(150mm)	T20060	N/A	N/A
	9"(225mm)	T20090	N/A	N/A
	12"(300mm)	T20120	N/A	N/A
3"(75mm)	2.5"(63mm)	T30025	T31025	T32025
	4"(100mm)	T30040	T31040	T32040
	6"(150mm)	T30060	T31060	T32060
	9"(225mm)	T30090	T31090	T32090
	12"(300mm)	T30120	T31120	T32120
4" (100mm)	2.5"(63mm)	T40025	T41025	T42025
	4"(100mm)	T40040	T41040	T42040
	6"(150mm)	T40060	T41060	T42060
	9"(225mm)	T40090	T41090	T42090
	12"(300mm)	T40120	T41120	T42120
5"(125mm)	2.5"(63mm)	T50025	T51025	T52025
	4"(100mm)	T50040	T51040	T52040
	6"(150mm)	T50060	T51060	T52060
	9"(225mm)	T50090	T51090	T52090
	12"(300mm)	T50120	T51120	T52120



## RANGES

F & C (Dual)	Code #	F only	Code #	C Only	Code #
-100/150° F / -70/ 70° C	B1	-40/120° F	B14	-80/50° C	B26
- 40/120° F / -40/ 50° C	B2	-40/160° F	B15	-50/50° C	B27
0/140° F / -20/ 60° C	B3	0/140° F	B16	0/50° C	B28**
- 40/160° F / -40/ 70° C	B4	0/200° F	B17	-50/100° C	B29
25/125° F / - 5/ 50° C	B5**	20/240° F	B18	0/100° C	B30
0/200° F / -20/ 90° C	B6	0/250° F	B19	-20/120° C	B31
20/240° F / - 5/115° C	B7	50/300° F	B20	0/150° C	B32
0/250° F / -20/120° C	B8	50/400° F	B21	0/200° C	B33
50/300° F / 10/150° C	B9	50/550° F	B22	0/300° C	B34
50/400° F / 10/200° C	B10	150 / 750° F	B23	0/450° C	B35
50/500° F / 10/260° C	B11	0/800° F	B24	100/550° C	B36
150/750° F / 100/400° C	B12	200/1000° F	B25		
200/1000° F / 100/540° C	B13				

\*\* Not available with a 2.5"(63mm) stem. Longer stem lengths are available. Silicone fill is available. (6" (150mm) dial available upon request)  
Other dial sizes, ranges, connections and stem lengths are available upon request.

OPTIONS: • AP3 = 3" Acrylic lens • AP4 = 4" Acrylic lens  
• AP5 = 5" Acrylic lens • SG = Safety Glass lens

Note: Add code "BG" for liquid filled dial; 3"(75mm), 4"(100mm) & 5"(125mm) only, up to 300°F (150°C)



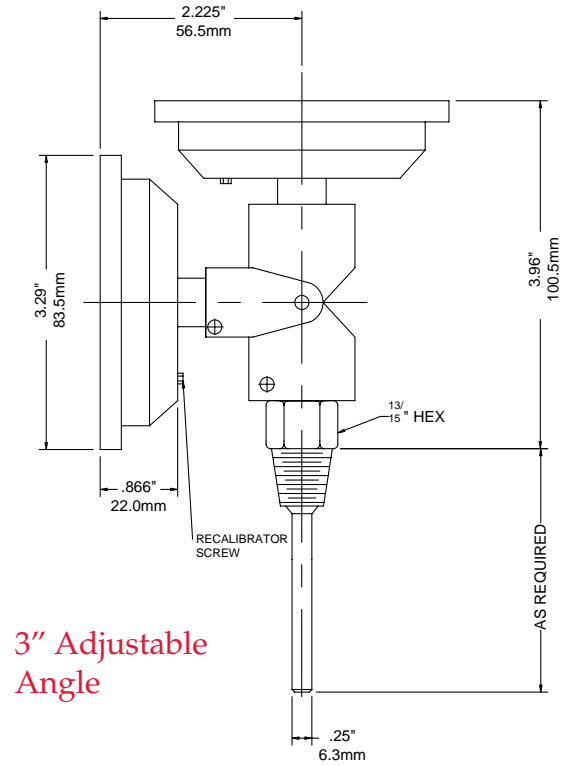
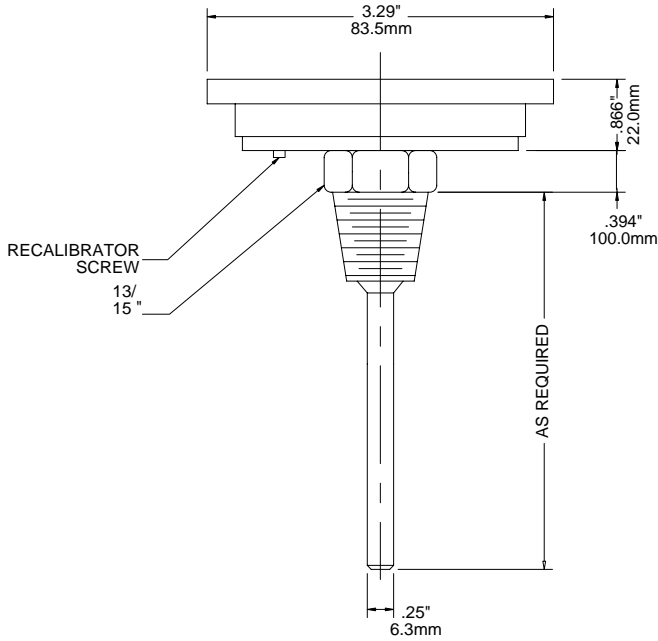
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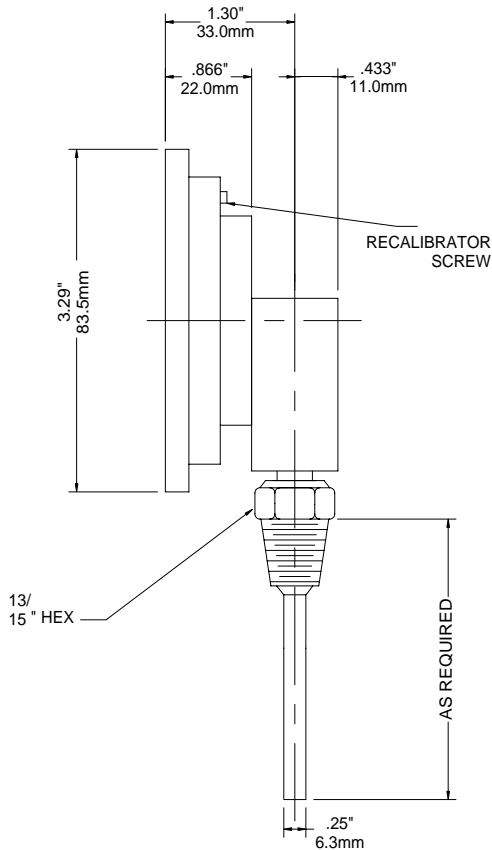
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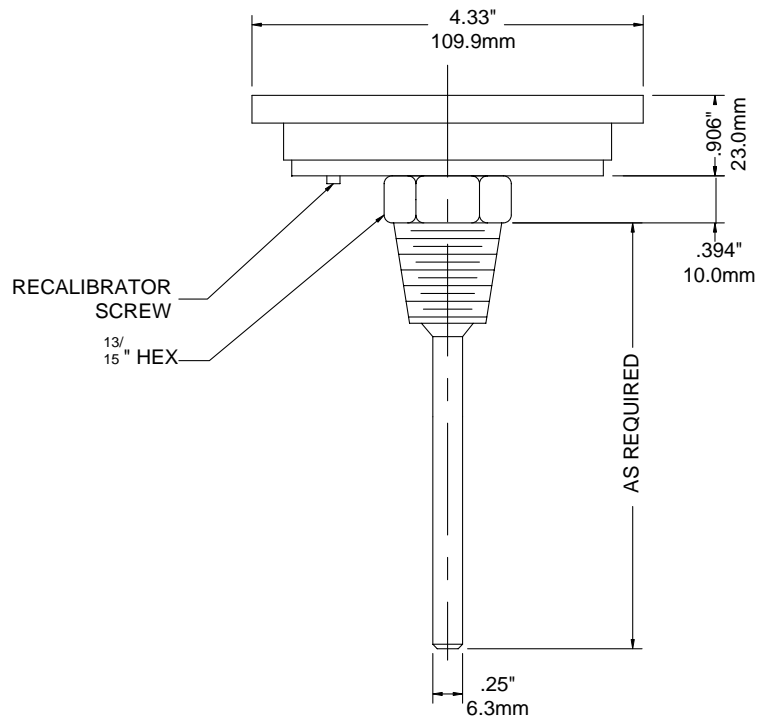
## 3" Back Connection



## 3" Bottom Connection



## 4" Back Connection



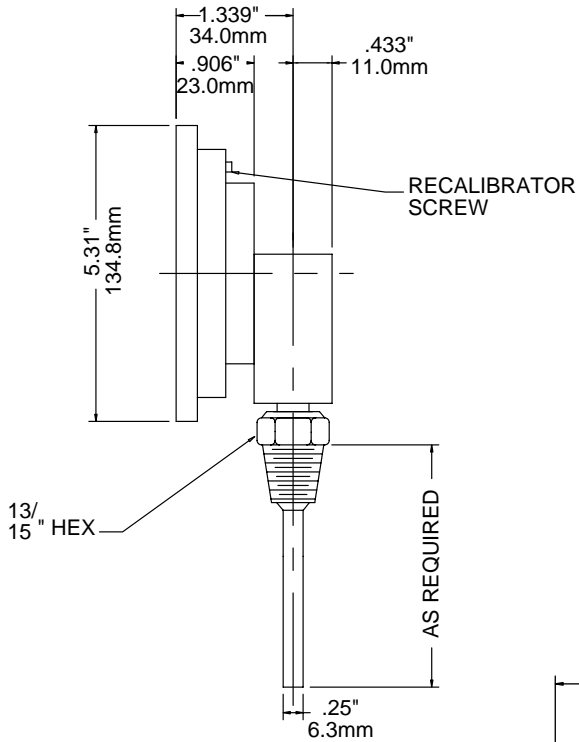
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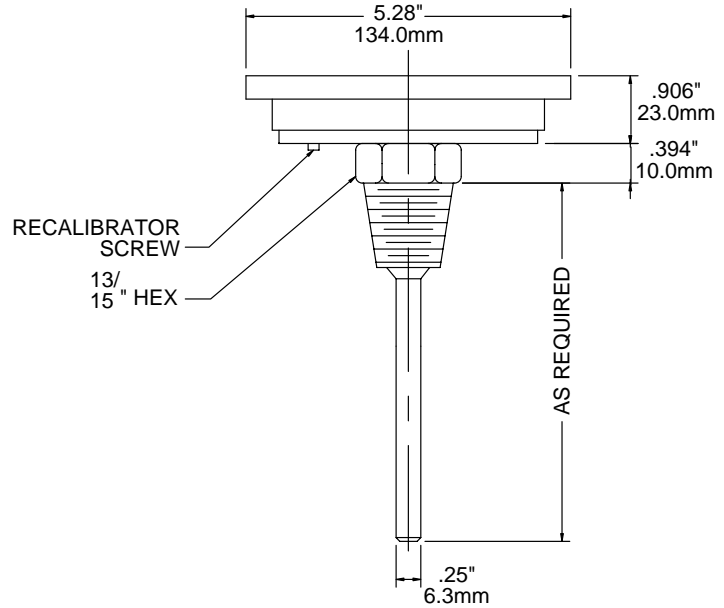
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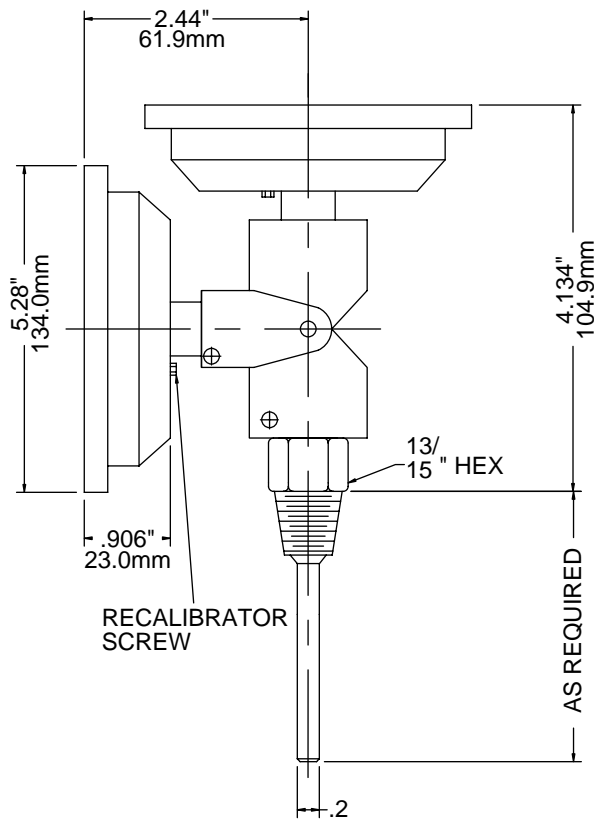
## 5" Bottom Connection



## 5" Back Connection



## 5" Adjustable Angle



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