

**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 (3" (75mm)-6" (150mm))
- Recalibrator screw is standard on all dial sizes
- Use with TBR or TWF thermowells
- ASME B40.200 compliant
- 5 year warranty

**Applications:**

- Industrial process, heating and air conditioning, ventilation and waste water
- Commercial installations such as barbecues, home brewing systems and cooking devices

**Specifications**

|                                   | Specifications                                                                                                                                                    |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Dial</b>                       | 1" (25mm), 2" (50mm): Aluminum with black markings, flat dial<br>3" (75mm), 4" (100mm), 5" (127mm), 6" (150mm): Aluminum with black markings, anti-parallax dial  |
| <b>Case</b>                       | AISI 304 SS                                                                                                                                                       |
| <b>Stem</b>                       | AISI 304 SS welded to socket, centre back, bottom or adjustable angle configurations (316 SS optional*)<br>1" (25mm), 2" (50mm) dial: Centre back connection only |
| <b>Recalibrator Screw</b>         | Standard                                                                                                                                                          |
| <b>Lens</b>                       | 1" (25mm): Polycarbonate<br>Others: Glass standard, hermetically sealed                                                                                           |
| <b>Ring</b>                       | AISI 304 SS                                                                                                                                                       |
| <b>Connection</b>                 | 1" (25mm): None<br>2" (50mm): 1/4" NPT standard<br>3" (75mm), 4" (100mm), 5" (127mm), 6" (150mm): 1/2" NPT standard                                               |
| <b>Sensing Element</b>            | Bi-metallic coil                                                                                                                                                  |
| <b>Pointer</b>                    | Aluminum, painted black                                                                                                                                           |
| <b>Maximum Operating Pressure</b> | 125 psi (861 kPa)                                                                                                                                                 |
| <b>Operating Temperature</b>      | 75% of full scale value (recommended maximum)                                                                                                                     |
| <b>Ambient Temperature</b>        | -58°F to 248°F (-50°C to 120°C)                                                                                                                                   |
| <b>Accuracy</b>                   | $\pm 1\%$ of full scale                                                                                                                                           |
| <b>Enclosure Rating</b>           | 2" (50mm) to 6" (150mm): IP68, 1" (25mm): IP52                                                                                                                    |

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

**Order Codes:** 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" (127mm)  | TBM10050          | -        | -                |
| 2" (50mm) lab thermometer    | 8" (200mm)  | TBM20080          | -        | -                |
| 2" (50mm)                    | 2.5" (63mm) | TBM20025          | -        | -                |
|                              | 4" (100mm)  | TBM20040          | -        | -                |
|                              | 6" (150mm)  | TBM20060          | -        | -                |
|                              | 9" (230mm)  | TBM20090          | -        | -                |
|                              | 12" (300mm) | TBM20120          | -        | -                |
|                              | 15" (370mm) | TBM20150          | -        | -                |
| 3" (75mm)                    | 2.5" (63mm) | TBM30025          | TBM31025 | TBM32025         |
|                              | 4" (100mm)  | TBM30040          | TBM31040 | TBM32040         |
|                              | 6" (150mm)  | TBM30060          | TBM31060 | TBM32060         |
|                              | 9" (230mm)  | TBM30090          | TBM31090 | TBM32090         |
|                              | 12" (300mm) | TBM30120          | TBM31120 | TBM32120         |
|                              | 15" (370mm) | TBM30150          | TBM31150 | TBM32150         |
| 4" (100mm)                   | 2.5" (63mm) | TBM40025          | TBM41025 | TBM42025         |
|                              | 4" (100mm)  | TBM40040          | TBM41040 | TBM42040         |
|                              | 6" (150mm)  | TBM40060          | TBM41060 | TBM42060         |
|                              | 9" (230mm)  | TBM40090          | TBM41090 | TBM42090         |
|                              | 12" (300mm) | TBM40120          | TBM41120 | TBM42120         |
|                              | 15" (370mm) | TBM40150          | TBM41150 | TBM42150         |
| 5" (127mm)                   | 2.5" (63mm) | TBM50025          | TBM51025 | TBM52025         |
|                              | 4" (100mm)  | TBM50040          | TBM51040 | TBM52040         |
|                              | 6" (150mm)  | TBM50060          | TBM51060 | TBM52060         |
|                              | 9" (230mm)  | TBM50090          | TBM51090 | TBM52090         |
|                              | 12" (300mm) | TBM50120          | TBM51120 | TBM52120         |
|                              | 15" (370mm) | TBM50150          | TBM51150 | TBM52150         |
| 6" (150mm)                   | 2.5" (63mm) | TBM60025          | TBM61025 | TBM62025         |
|                              | 4" (100mm)  | TBM60040          | TBM61040 | TBM62040         |
|                              | 6" (150mm)  | TBM60060          | TBM61060 | TBM62060         |
|                              | 9" (230mm)  | TBM60090          | TBM61090 | TBM62090         |
|                              | 12" (300mm) | TBM60120          | TBM61120 | TBM62120         |
|                              | 15" (370mm) | TBM60150          | TBM61150 | TBM62150         |

Other ranges, stem lengths and connection sizes available upon request.

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

## Temperature Ranges

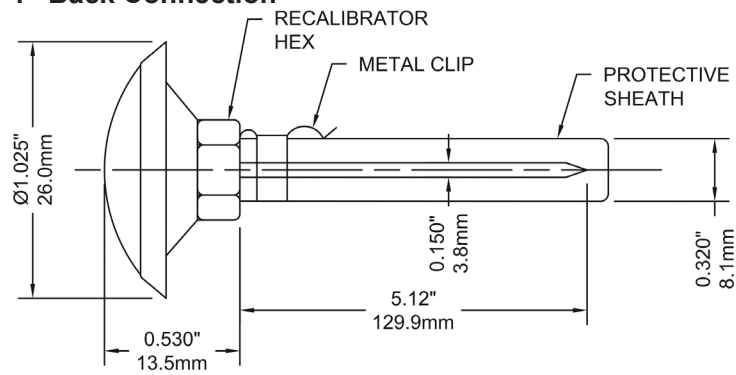
| F & C, DUAL SCALE       | CODE |
|-------------------------|------|
| -100/160°F & -70/70°C   | B1   |
| -40/120°F & -40/50°C    | B2   |
| 0/140°F & -20/60°C      | B3   |
| -40/160°F & -40/70°C    | B4   |
| 25/125°F & - 5/50°C     | B5   |
| 0/200°F & -20/90°C      | B6   |
| 20/240°F & - 5/115°C    | B7   |
| 0/250°F & -20/120°C     | B8   |
| 50/300°F & 10/150°C     | B9   |
| 50/400°F & 10/200°C     | B10  |
| 50/500°F & 10/ 260°C    | B11  |
| 150/750°F & 70/400°C    | B12  |
| 200/1,000°F & 100/550°C | B13  |
| 14/140°F & -10/60°C     | B37  |
| 32/212°F & 0/100°C      | B52  |
| 32/140°F & 0/60°C       | B84  |
| -60/300°F & -50/150°C   | B86  |

| C & F, DUAL SCALE    | CODE |
|----------------------|------|
| -30/70°C & -20/150°F | B75  |
| 0/120°C & 30/250°F   | B76  |
| 0/300°C & 30/570°F   | B77  |
| 0/200°C & 30/400°F   | B79  |
| 0/250°C & 30/480°F   | B80  |
| 0/50°C & 30/120°F    | B81  |
| -20/60°C & -4/140°F  | B85  |

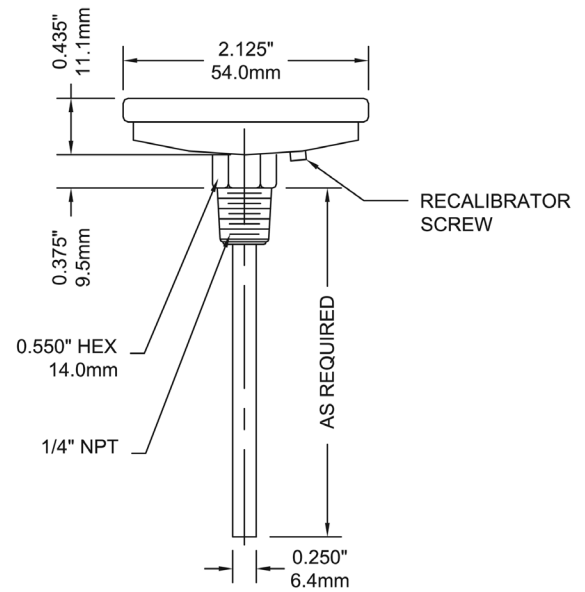
| F, SINGLE SCALE | CODE |
|-----------------|------|
| -40/120°F       | B14  |
| -40/160°F       | B15  |
| 0/140°F         | B16  |
| 0/200°F         | B17  |
| 20/240°F        | B18  |
| 0/250°F         | B19  |
| 50/300°F        | B20  |
| 50/400°F        | B21  |
| 50/550°F        | B22  |
| 150/750°F       | B23  |
| 0/800°F         | B24  |
| 200/1,000°F     | B25  |
| 14/140°F        | B38  |
| -80/120°F       | F60  |
| -80/240°F       | F61  |
| -20/120°F       | F62  |
| 30/300°F        | F63  |
| 30/400°F        | F64  |
| 100/800°F       | F65  |
| 200/1,000°F     | F66  |

| C, SINGLE SCALE | CODE |
|-----------------|------|
| -80/50°C        | B26  |
| -50/50°C        | B27  |
| 0/50°C          | B28  |
| 50/100°C        | B29  |
| 0/100°C         | B30  |
| -20/120°C       | B31  |
| 0/150°C         | B32  |
| 0/200°C         | B33  |
| 0/300°C         | B34  |
| 0/ 450°C        | B35  |
| 100/550°C       | B36  |
| 0/500°C         | B39  |
| -10/60°C        | B40  |
| 100/400°C       | B41  |
| 100/540°C       | B42  |
| -30/70°C        | B45  |
| 20/120°C        | B46  |
| -30/170°C       | B47  |
| 0/120°C         | B48  |
| 0/400°C         | B49  |
| 0/250°C         | B50  |
| 20/60°C         | B51  |
| -20/ 60°C       | B53  |
| 0/60°C          | B82  |
| -10/60°C        | B87  |
| 10/60°C         | B88  |
| -70/70°C        | B89  |
| -70/30°C        | B90  |
| -50/100°C       | B91  |
| -50/300°C       | B92  |
| -50/500°C       | B93  |
| -40/60°C        | B94  |
| -40/80°C        | B95  |
| -40/160°C       | B96  |
| -30/50°C        | B97  |
| -30/70°C        | B98  |
| -20/80°C        | B99  |
| -20/100°C       | B100 |
| -20/140°C       | B101 |
| -10/50°C        | B102 |
| 0/80°C          | B103 |
| 0/160°C         | B104 |
| 0/600°C         | B105 |

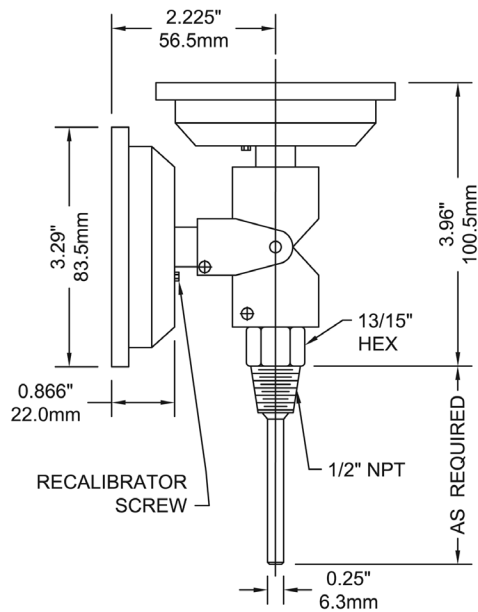
## 1" Back Connection



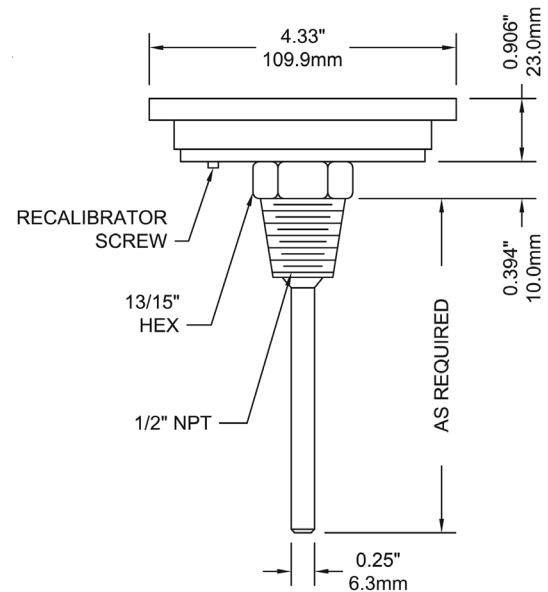
## 2" Back Connection



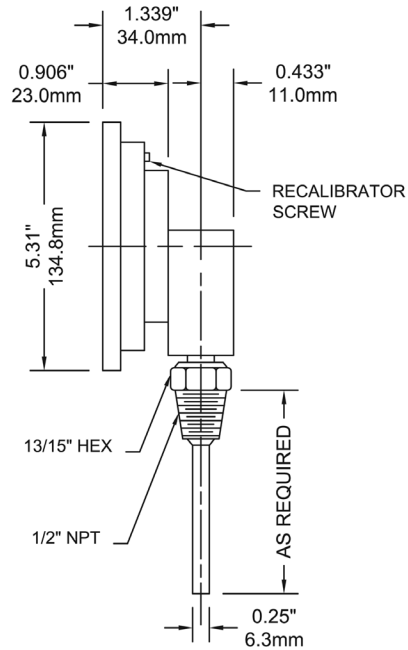
## 3" Adjustable Angle Connection



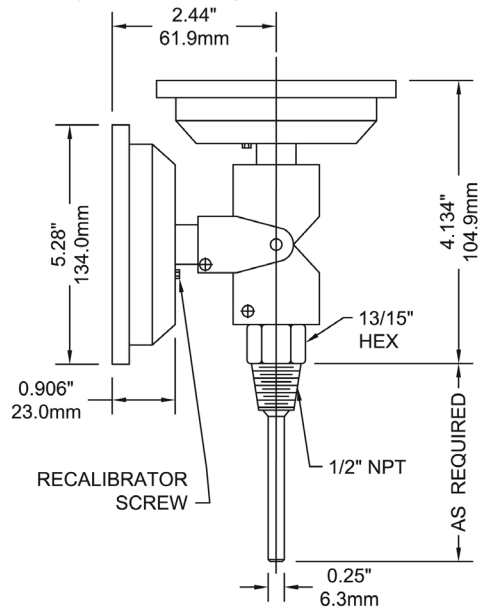
## 4" Back Connection



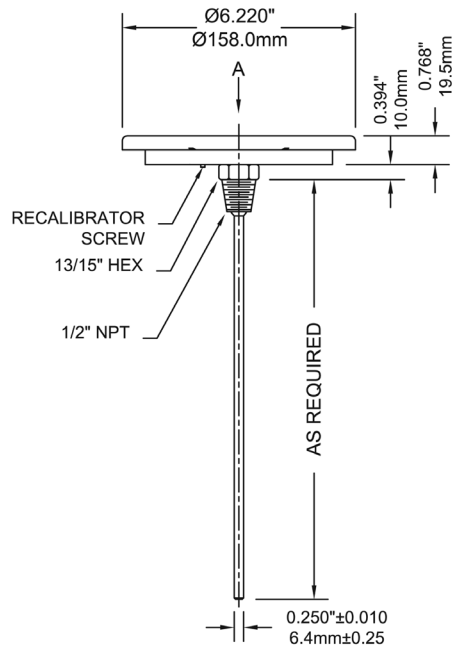
## 5" Bottom Connection



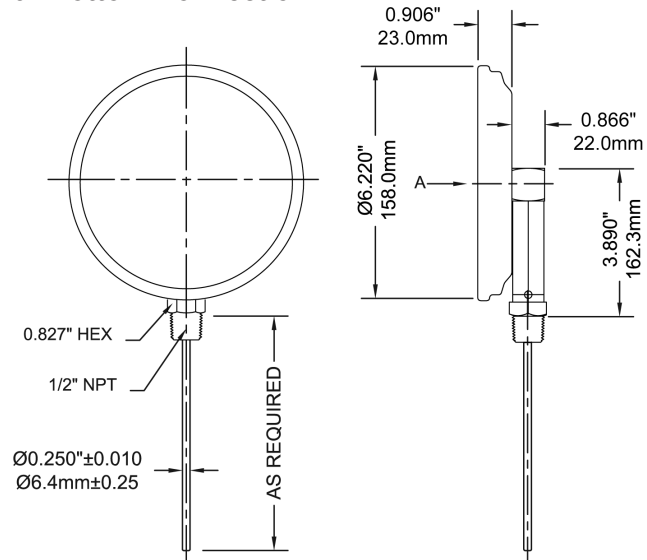
## 5" Adjustable Angle Connection



## 6" Back Connection



## 6" Bottom Connection



## Engineering Codes

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>TBM SERIES</b>                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>DIAL SIZE</b>                            | 1" (25MM)<br>2" (50MM)<br>3" (75mm)<br>4" (100mm)<br>5" (125mm)<br>6" (160mm)                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>PRESSURE SCALE &amp; RANGE</b>           | SEE TEMPERATURE RANGES                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>CASE MATERIAL</b>                        | 304SS<br>316SS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>WETTED PARTS</b>                         | 304SS<br>316SS<br>316L                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>PROCESS CONNECTION SIZE (MALE)</b>       | 1/4"<br>3/8"<br>1/2"<br>1/2" SLIDING UNION<br>3/4"                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>PROCESS CONNECTION TYPE</b>              | NPT<br>BSPP (G), PARALLEL<br>BSPT (R), TAPERED                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>PROCESS CONNECTION LOCATION</b>          | BOTTOM, STEM<br>CENTRE Back<br>CENTRE Back, ADJUSTABLE                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>STEM LENGTH</b>                          | 2.5"<br>4"<br>6"<br>9"<br>12"<br>15"<br>18"<br>24"<br>30"<br>36"                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>STEM DIAMETER (MM)</b>                   | 6<br>6.3 (STANDARD)<br>8<br>10<br>12<br>14                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>ACCURACY %</b>                           | 3-2-3<br>1.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>OPTIONS, LIST IN ALPHA-NUMERIC ORDER</b> | ACRYLIC LENS<br>POLYCARBONATE LENS<br>SAFETY GLASS, LAMINATED<br>SAFETY GLASS, TEMPERED<br>GLYCERIN FILL (FOOD GRADE)<br>GLYCERIN WATER FILL<br>SILICONE FILL<br>ALUMINUM DUCT FLANGE<br>SOCKET CONVERSION KIT<br>CUSTOM DIAL, SIMPLE<br>CUSTOM DIAL, COMPLEX<br>WHITE DIAL<br>MAXIMUM ADJUSTABLE POINTER<br>MINIMUM ADJUSTABLE POINTER<br>RED SET POINTER<br>NO RECALIBRATION SCREW<br>316SS POLISHED RING<br>316L POLISHED RING<br>POINTED STEM (2" ONLY)<br>ROSH COMPLIANT<br>NACE COMPLIANT<br>SPECIAL |

[illegible]