

# Temperature

## BIMETAL THERMOMETERS

- External Reset Feature for Field Recalibration (3" & 5")
- 9 Dual Scale Ranges to 1,000°F (525°C)
- Hermetically Sealed Case Design
- 2", 3" and 5" Dials
- Stem Lengths to 24"
- 1% Full Scale Accuracy

Marsh Instruments Bimetal Thermometers combine the benefits of economy and reliability for local mounted temperature indication in the dual scale ranges from -50° to 1,000°F (-40° to 525°C). Additional advantages offered by the Series "L" Bimetal Thermometers include an easy-to-read dual scale, fast speed of response, and accurate temperature indication. The hermetically sealed and ruggedly built case is resistant to shock, vibration, dust and moisture. Corrosion resistance to most chemicals is provided by the all welded type 304 Stainless Steel construction. The extremely responsive bimetal sensing element provides an accuracy to within  $\pm 1\%$  of scale. An external adjustment screw on the back of the 3" and 5" case provides convenient reset and field recalibration. Built-in over range protection is a standard feature.

Typical applications include process, offshore, power, chemical industries, HVAC and OEM applications.

### STANDARD RANGES & PART NUMBERS

| TYPE                           | BIMETAL THERMOMETERS |        |        |        |        |        |
|--------------------------------|----------------------|--------|--------|--------|--------|--------|
| Size                           | 2"                   |        |        |        |        |        |
| Connection                     | ¼ NPT                |        |        |        |        |        |
| Mounting                       | CB                   | CB     | CB     | CB     | CB     |        |
| Stem Length                    | 2½"                  | 4"     | 6"     | 9"     | 12"    |        |
| -50° to 120°F / -40° to 50°C   | L11101               | L11201 | L11301 | L11401 | L11501 |        |
| -40° to 160°F / -40° to 70°C   | L11102               | L11202 | L11302 | L11402 | L11502 |        |
| 0° to 200°F / -20° to 90°C     | L11104               | L11204 | L11304 | L11404 | L11504 |        |
| 0° to 250°F / -20° to 120°C    | L11105               | L11205 | L11305 | L11405 | L11505 |        |
| 50° to 300°F / 10° to 150°C    | L11106               | L11206 | L11306 | L11406 | L11506 |        |
| 50° to 400°F / 10° to 200°C    | L11107               | L11207 | L11307 | L11407 | L11507 |        |
| 50° to 550°F / 10° to 300°C    | L11108               | L11208 | L11308 | L11408 | L11508 |        |
| 150° to 750°F / 70° to 400°C   | L11110               | L11210 | L11310 | L11410 | L11510 |        |
| 200° to 1000°F / 100° to 525°C | L11111               | L11211 | L11311 | L11411 | L11511 |        |
| Size                           | 3"                   |        |        |        |        |        |
| Connection                     | ½ NPT                |        |        |        |        |        |
| Mounting                       | CB                   | CB     | CB     | CB     | CB     | CB     |
| Stem Length                    | 2½"                  | 4"     | 6"     | 9"     | 12"    | 15"    |
| -50° to 120°F / -40° to 50°C   | L31101               | L31201 | L31301 | L31401 | L31501 | L31601 |
| -40° to 160°F / -40° to 70°C   | L31102               | L31202 | L31302 | L31402 | L31502 | L31602 |
| 0° to 200°F / -20° to 90°C     | L31104               | L31204 | L31304 | L31404 | L31504 | L31604 |
| 0° to 250°F / -20° to 120°C    | L31105               | L31205 | L31305 | L31405 | L31505 | L31605 |
| 50° to 300°F / 10° to 150°C    | L31106               | L31206 | L31306 | L31406 | L31506 | L31606 |
| 50° to 400°F / 10° to 200°C    | L31107               | L31207 | L31307 | L31407 | L31507 | L31607 |
| 50° to 550°F / 10° to 300°C    | L31108               | L31208 | L31308 | L31408 | L31508 | L31608 |
| 150° to 750°F / 70° to 400°C   | L31110               | L31210 | L31310 | L31410 | L31510 | L31610 |
| 200° to 1000°F / 100° to 525°C | L31111               | L31211 | L31311 | L31411 | L31511 | L31611 |
| Size                           | 3" Adjustable Angle  |        |        |        |        |        |
| Connection                     | ½ NPT                |        |        |        |        |        |
| -50° to 120°F / -40° to 50°C   | L33101               | L33201 | L33301 | L33401 | L33501 | L33601 |
| -40° to 160°F / -40° to 70°C   | L33102               | L33202 | L33302 | L33402 | L33502 | L33602 |
| 0° to 200°F / -20° to 90°C     | L33104               | L33204 | L33304 | L33404 | L33504 | L33604 |
| 0° to 250°F / -20° to 120°C    | L33105               | L33205 | L33305 | L33405 | L33505 | L33605 |
| 50° to 300°F / 10° to 150°C    | L33106               | L33206 | L33306 | L33406 | L33506 | L33606 |
| 50° to 400°F / 10° to 200°C    | L33107               | L33207 | L33307 | L33407 | L33507 | L33607 |
| 50° to 550°F / 10° to 300°C    | L33108               | L33208 | L33308 | L33408 | L33508 | L33608 |
| 150° to 750°F / 70° to 400°C   | L33110               | L33210 | L33310 | L33410 | L33510 | L33610 |
| 200° to 1000°F / 100° to 525°C | L33111               | L33211 | L33311 | L33411 | L33511 | L33611 |

### SPECIFICATIONS

#### ACCURACY

$\pm 1\%$  of span throughout entire range for 2" immersion in liquids, 4" in gases

#### CASE SIZES

2", 3", and 5" sizes

#### CASE MATERIAL

304 Stainless steel

#### STEM

2½", 4", 6", 9", 12", 15", 18" & 24" Stainless Steel; ¼" diameter

#### CONNECTIONS

¼" NPT: CB—Center Back connection (2" case only)

½" NPT: CB—Center Back connection or AJ—Adjustable connection (3" & 5")

#### DIALS

Dual scale in degrees Celsius and Fahrenheit

#### WINDOW

Glass, hermetically sealed



## STANDARD RANGES & PART NUMBERS

| BIMETAL THERMOMETERS          |        |        |        |        |        |        |        |        |
|-------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Size                          | 5"     |        |        |        |        |        |        |        |
| Connection                    | ½ NPT  |        |        |        |        |        |        |        |
| Mounting                      | CB     | CB     | CB     | CB     | CB     | CB     | CB     | CB     |
| Stem Length                   | 2½"    | 4"     | 6"     | 9"     | 12"    | 15"    | 18"    | 24"    |
| -50° to 120°F/-40° to 50°C    | L51101 | L51201 | L51301 | L51401 | L51501 | L51601 | L51701 | L51801 |
| -40° to 160°F/-40° to 70°C    | L51102 | L51202 | L51302 | L51402 | L51502 | L51602 | L51702 | L51802 |
| 0° to 200°F/-20° to 90°C      | L51104 | L51204 | L51304 | L51404 | L51504 | L51604 | L51704 | L51804 |
| 0° to 250°F/-20° to 120°C     | L51105 | L51205 | L51305 | L51405 | L51505 | L51605 | L51705 | L51805 |
| 50° to 300°F/ 10° to 150°C    | L51106 | L51206 | L51306 | L51406 | L51506 | L51606 | L51706 | L51806 |
| 50° to 400°F/ 10° to 200°C    | L51107 | L51207 | L51307 | L51407 | L51507 | L51607 | L51707 | L51807 |
| 50° to 550°F/ 10° to 300°C    | L51108 | L51208 | L51308 | L51408 | L51508 | L51608 | L51708 | L51808 |
| 150° to 750°F/ 70° to 400°C   | L51110 | L51210 | L51310 | L51410 | L51510 | L51610 | L51710 | L51810 |
| 200° to 1000°F/ 100° to 525°C | L51111 | L51211 | L51311 | L51411 | L51511 | L51611 | L51711 | L51811 |

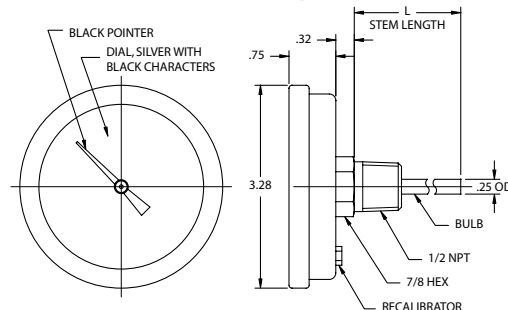
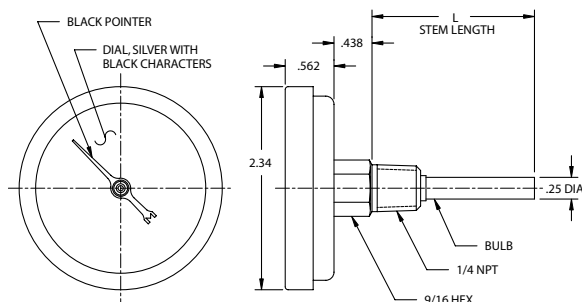
  

|                               |                     |        |        |        |        |        |        |        |
|-------------------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|
| Size                          | 5" Adjustable Angle |        |        |        |        |        |        |        |
| Connection                    | ½ NPT               |        |        |        |        |        |        |        |
| Mounting                      | AJ                  | AJ     | AJ     | AJ     | AJ     | AJ     | AJ     | AJ     |
| Stem Length                   | 2½"                 | 4"     | 6"     | 9"     | 12"    | 15"    | 18"    | 24"    |
| -50° to 120°F/-40° to 50°C    | L53101              | L53201 | L53301 | L53401 | L53501 | L53601 | L53701 | L53801 |
| -40° to 160°F/-40° to 70°C    | L53102              | L53202 | L53302 | L53402 | L53502 | L53602 | L53702 | L53802 |
| 0° to 200°F/-20° to 90°C      | L53104              | L53204 | L53304 | L53404 | L53504 | L53604 | L53704 | L53804 |
| 0° to 250°F/-20° to 120°C     | L53105              | L53205 | L53305 | L53405 | L53505 | L53605 | L53705 | L53805 |
| 50° to 300°F/ 10° to 150°C    | L53106              | L53206 | L53306 | L53406 | L53506 | L53606 | L53706 | L53806 |
| 50° to 400°F/ 10° to 200°C    | L53107              | L53207 | L53307 | L53407 | L53507 | L53607 | L53707 | L53807 |
| 50° to 550°F/ 10° to 300°C    | L53108              | L53208 | L53308 | L53408 | L53508 | L53608 | L53708 | L53808 |
| 150° to 750°F/ 70° to 400°C   | L53110              | L53210 | L53310 | L53410 | L53510 | L53610 | L53710 | L53810 |
| 200° to 1000°F/ 100° to 525°C | L53111              | L53211 | L53311 | L53411 | L53511 | L53611 | L53711 | L53811 |



L11XXX

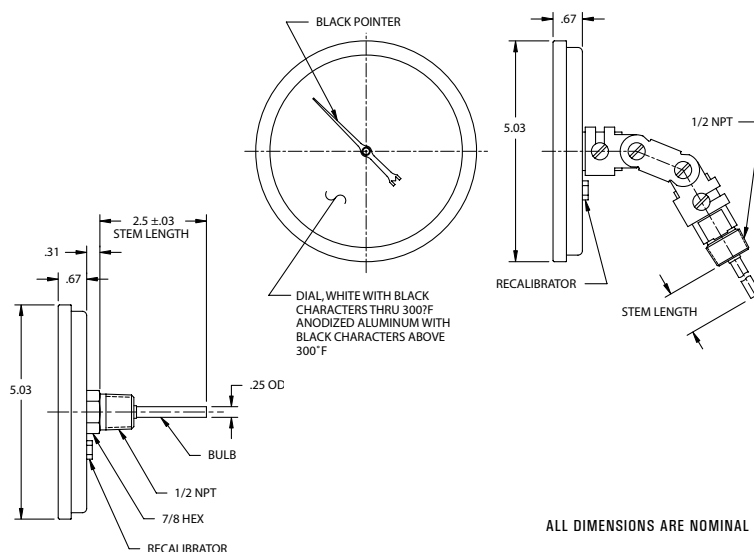
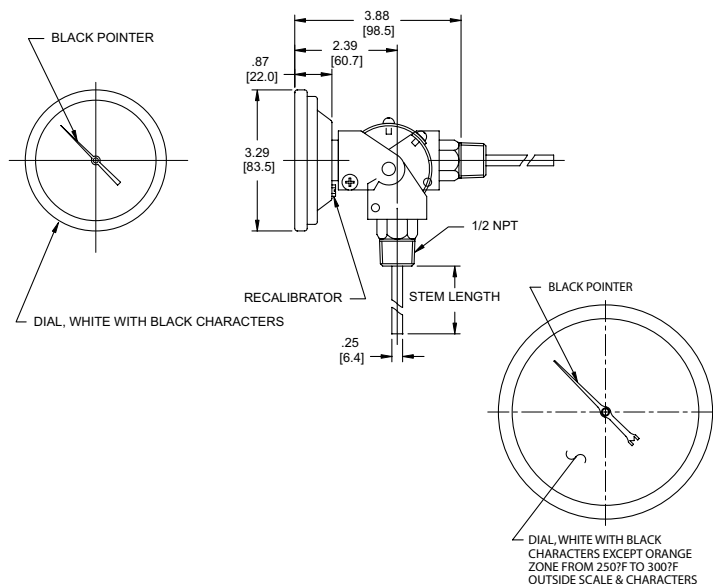
L31XXX



L33XXX

L51XXX

L53XXX



ALL DIMENSIONS ARE NOMINAL