

# Temperature

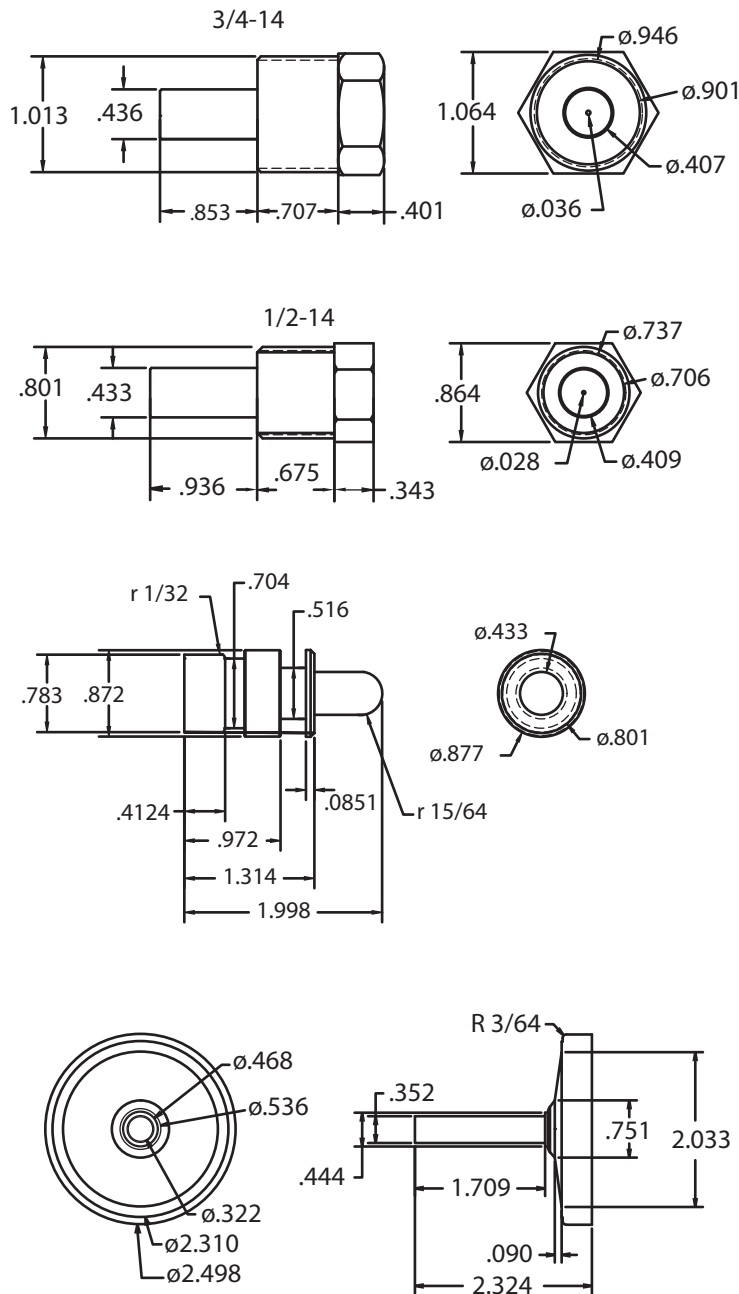
## HOT WATER THERMOMETER

- ± 1% of span throughout entire range
- Aluminum stem and case material
- Bi-metallic element

Thermometer is available with standard 1/2" or 3/4" NPT male separable socket or 1/2" or 3/4" sweatwell connection that allows easy thermometer removal while maintaining a "sealed" system.

Marsh Instruments Hot Water Thermometers are designed for accurate temperature readings in hot water lines, boilers and hydronic systems.

DESCRIPTION	P/N
1/2" NPT	L8004-1
3/4" NPT	L8004-2
1/2" sweatwell	L8004-3
3/4" sweatwell	L8004-4



### SPECIFICATIONS

- ACCURACY**  
± 1% of span throughout entire range
- CASE SIZE**  
2 1/2" Diameter
- CASE MATERIAL**  
Aluminum
- STEM**  
Aluminum
- MOVEMENT**  
Bi-metallic element
- CONNECTION**  
1/2" or 3/4" NPT Center Back,  
1/2" or 3/4" Sweatwell Center Back
- RANGE**  
30-250° F & 0-120° C
- DIAL COLOR**  
White with Black & Red Markings
- POINTER**  
Aluminum, Black Painted
- RECALIBRATOR**  
Standard

ALL DIMENSIONS ARE NOMINAL



# 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 ± 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.



### SPECIFICATIONS

#### ACCURACY

± 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

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



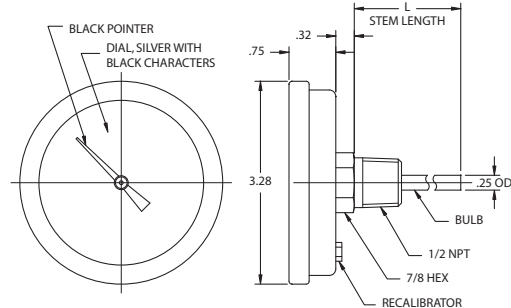
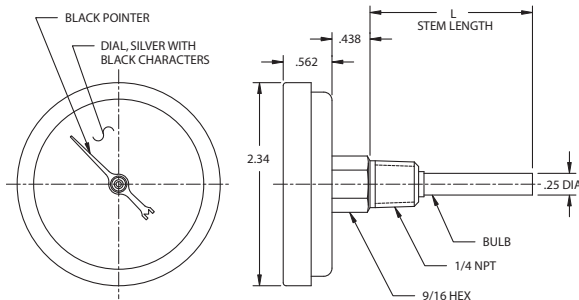
# Temperature

## STANDARD RANGES & PART NUMBERS

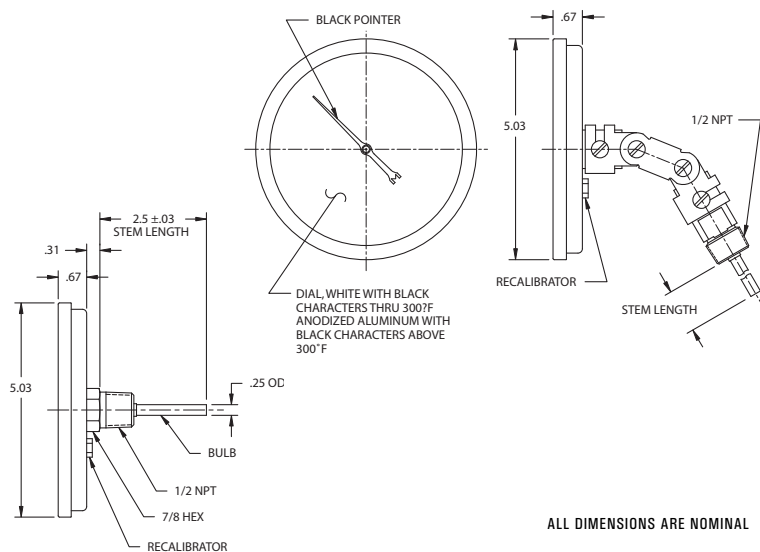
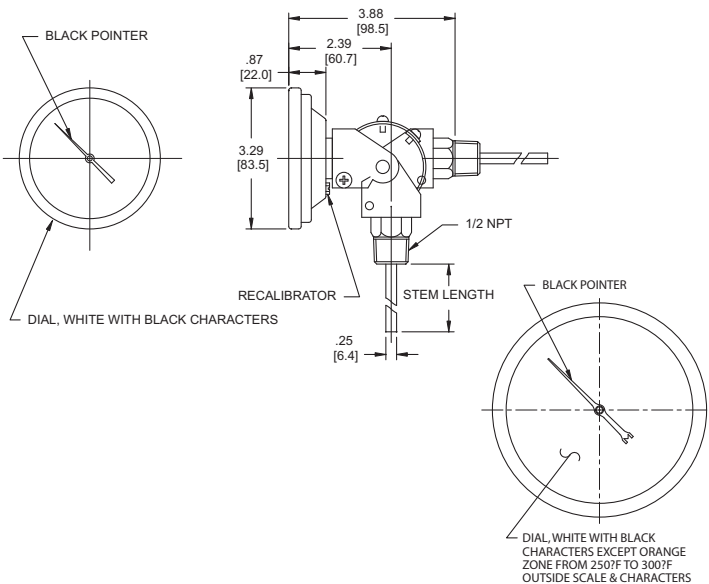
TYPE		BIMETAL THERMOMETERS							
Size	5"								
Connection	½ NPT								
Mounting	CB	CB	CB	CB	CB	CB	CB	CB	
Stem Length	2½"	4"	6"	9"	12"	15"	18"	24"	
-50° to 120°F/-40° to 50°C	L51101	L51201	L51301	L51401	L51501	L51601	L51701	L51801	
-40° to 160°F/-40° to 70°C	L51102	L51202	L51302	L51402	L51502	L51602	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**



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# Temperature

## POCKET THERMOMETER

- 1" Dial
- 304 Stainless Steel Hermetically Sealed Case
- 5" long stem
- Protective Case with Stainless Steel Clip

Marsh pocket thermometers have a 1" dial, 304SS hermetically sealed case, 304SS 0.4mm diameter 5" long stem, and plastic lens. The accuracy is  $\pm 1.5\%$  of scale range. Each unit comes with a protective case with SS clip, that allows it to be safely carried in your pocket and also can be used to hold the thermometer in the medium to be tested.

Typical applications include the food industries, HVAC/R industries, and any applications requiring fast and accurate temperature.

### STANDARD RANGES & PART NUMBERS

PART NUMBER	DESCRIPTION & RANGE
L020E	1" dial, 5" stem, -40/160°F
L041E	1" dial, 5" stem, 0/220°F
L080E	1" dial, 5" stem, 50/550°F

### SPECIFICATIONS

#### ACCURACY

$\pm 1.5\%$  of span throughout entire range

#### CASE MATERIAL

304 Stainless Steel

#### RANGES

-40/160°F, 0/220°F, 50/550°F

## DIGITAL POCKET THERMOMETER

- 3.5 Digit LCD display
- ABS Plastic Case
- 5" long stem
- Protective Case with Stainless Steel Clip

Marsh Digital Pocket Thermometers have a 3.5 digit LCD display, ABS case and a 304SS 5" long stem. The accuracy is  $\pm 2^\circ\text{F}$  with an update time of 10 seconds. Each unit has an on-off switch for longer battery life and comes with the protective carrying case.

Typical applications include the food industries, HVAC/R industries, and any applications requiring fast and accurate temperature.

### STANDARD RANGES & PART NUMBERS

PART NUMBER	DESCRIPTION & RANGE
L021DG	3.5 digit display, 5" stem, -58 to 302 °F / -50 to 150 °C

### SPECIFICATIONS

#### ACCURACY

$\pm 2^\circ\text{F}$

#### CASE MATERIAL

ABS Plastic

#### RANGE

-58 to 302 °F / -50 to 150 °C



# Temperature

## INDUSTRIAL THERMOMETER

- Standard Well & Lagging Well Option
- Mounting Options: Adjustable Angle
- Easy to Read Dual Scale
- 5 Temperature Ranges
- Aluminum or Molded Glass Fiber Case

Marsh Industrial Thermometers are designed for demanding applications. The large 9" scale permits easy reading at longer distances. The glass-reinforced nylon case is lightweight yet rugged enough for demanding installations. The adjustable stem can be locked into any position through a 180° arc. These thermometers are commonly used on hot or chilled water lines in commercial/industrial buildings.

The Marsh Industrial Thermometers have a compact design that is well suited for limited space applications such as diesel engines, steam turbines, reduction gears, pumps, condensers and pipelines.

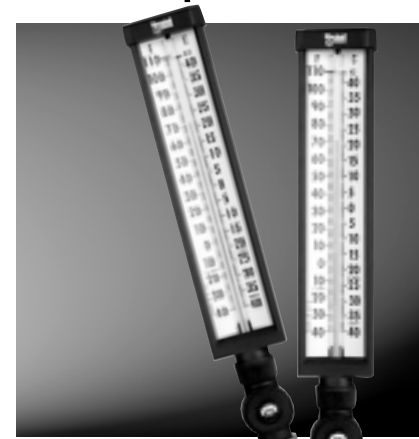
### STANDARD RANGES & PART NUMBERS

TYPE	INDUSTRIAL THERMOMETERS 9" ADJUSTABLE		
	With 3½" Stem		
Stem & Well	3½" (NO)	3½" SW	3½" LW
Dual Scale	°F & °C	°F & °C	°F & °C
Range			
-40° to 110°F / -40° to 40°C	Y1210	Y1202	Y1242
0° to 120°F / -15° to 45°C	Y1211	Y1203	Y1243
0° to 160°F / -15° to 65°C	Y1212	Y1204	Y1244
30° to 240°F / 0° to 115°C	Y1214	Y1206	Y1246
30° to 300°F / 0° to 150°C	Y1216	Y1208	Y1248
	With 6" Stem		
Stem & Well	6" (NO)	6" SW	6" LW
Dual Scale	°F & °C	°F & °C	°F & °C
Range			
-40° to 110°F / -40° to 40°C	Y1218	Y1226	Y1234
0° to 120°F / -15° to 45°C	Y1219	Y1227	Y1235
0° to 160°F / -15° to 65°C	Y1220	Y1228	Y1236
30° to 240°F / 0° to 115°C	Y1222	Y1230	Y1238
30° to 300°F / 0° to 150°C	Y1224	Y1232	Y1240

TYPE	SEPARABLE SOCKETS (THERMOWELLS)	
Process Connection	½ NPT	¾ NPT
Material	Brass	304 SST
Stem Length & Well Style		
3½" Standard	223499-001	223502
6" Standard	223371	223512
6" with 2" Lagging	223389	223538

### INDUSTRIAL THERMOMETER OPTIONS

Option	Type	Suffix	Available on Models
Case	Aluminum	A	All Models



### SPECIFICATIONS

#### ACCURACY

± 1% of scale range

#### INDICATING COLUMN

Blue liquid fill

#### SCALE

Dual scale °F & °C.

White coated aluminum

#### SCALE LENGTH

9 inches

#### CASE MATERIAL

Molded black nylon,  
glass fiber reinforced

#### WINDOW

Glass

#### CONNECTION & STEM

1½"-18 swivel nut, for use with separable socket. Adjustable aluminum 3½" or 6" stem with 360° rotation

#### SEPARABLE SOCKET (THERMOWELL)

Choice of (NO) well, (SW) Standard Brass Well, or (LW) 2" Lagging Brass Extension Well.

# Temperature

## SUBMARINE THERMOMETER

- 5" Scale Size
- V-Shaped aluminum scale with black markings
- Lens front, red reading organic filled tube
- Gray ABS Case
- 2" nominal stem length for 3/4" OA socket

Each thermometer is manufactured to a standard accuracy of 1% of span. Gray case with red reading spirit filled tube with magnifying lens for easy readability. White aluminum scale with bold black graduations and figures. Typical applications include diesel engines, steam turbines, pumps, condensers, pipelines, boilers and chillers.



### SPECIFICATIONS

**ACCURACY**

± 1% of scale range

**INDICATING COLUMN**

Red liquid fill

**SCALE**

Dual scale °F & °C.

White coated aluminum

**SCALE LENGTH**

5 inches

**CASE MATERIAL**

Gray ABS

**WINDOW**

Glass

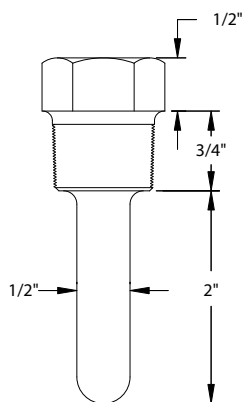
**CONNECTION & STEM**

3/4"-28" swivel nut, for use with separable socket (thermowell).

### STANDARD RANGES & PART NUMBERS

TYPE	SUBMARINE THERMOMETERS	
Stem Length	2"	
Dual Scale	°F & °C	
	STRAIGHT	90° BACK ANGLE
Range		
-40° to 110°F / -40° to 40°C	Y1402	Y1412
20° to 180°F / -6° to 82°C	Y1404	Y1414
30° to 240°F / 0° to 114°C	Y1406	Y1416
50° to 400°F / 10° to 200°C	Y1408	Y1418

TYPE	THERMOWELL
Connection	1/2" and 3/4" NPT
Material	Brass
Stem/Well Length	
2"/3/4" OA	223666



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THERMOWELL DIMENSIONS—3/4"-28" Female Thread (internal)



# Temperature

## TRIDICATORS

- Back and Bottom Mounting Options
- Rotatable Set Pointer
- Rugged Construction
- Three-Color Dial
- Three Pressure Ranges
- 2½" & 3½" Sizes

Marsh Instruments Tridicators (Boiler Gauges) are designed and suitable for hot water heating systems. These instruments indicate pressure in psi and altitude for pools and spa's in feet of H<sub>2</sub>O; in °F and °C. All models feature a set hand for setting the desired pressure and altitude of the installation.

Typical applications include hot water boilers, heated pools, spa's and hot tubs.



### STANDARD RANGES & PART NUMBERS

TYPE	TRIDICATORS		
Size	2½"	3½"	3½"
Case Style	Round	Square	Square
Case Material	Steel	Steel	Steel
Internals	Copper Alloy	Copper Alloy	Copper Alloy
Mounting/Case Style	CB	LBM	LM
Connection	¼ NPT	½ NPT	½ NPT
Scale Standard	psi/Feet of Water	psi/Feet of Water	psi/Feet of Water
0 to 60 psi / 0 to 130 ft H <sub>2</sub> O	Y22026	Y22006	Y22002
0 to 100 psi / 0 to 230 ft H <sub>2</sub> O		Y22008	Y22004
0 to 200 psi / 0 to 460 ft H <sub>2</sub> O		Y22016	Y22012
0 to 300 psi / 0 to 680 ft H <sub>2</sub> O		Y22018	Y22014

### SPECIFICATIONS

**ACCURACY**  
ASME Grade B = ±3/2/3% (±2% of range across middle half of scale)

**CASE SIZE**  
2½" Round & 3½" Square

**CASE MATERIAL**  
Steel, black painted

**CONNECTION**  
2½" case: ¼ NPT Center Back Mount, 3½" case: ½ NPT Lower Mount or Lower Back Mount

**PRESSURE RANGES**  
Dual scale in 4 ranges:  
0 to 60 psi & 0 to 130 ft. of water  
0 to 100 psi & 0 to 230 ft. of water  
0 to 200 psi & 0 to 480 ft. of water  
0 to 300 psi & 0 to 680 ft. of water

**TEMPERATURE RANGE**  
60° to 260°F & 20° to 120°C

**DIALS** Black markings on white

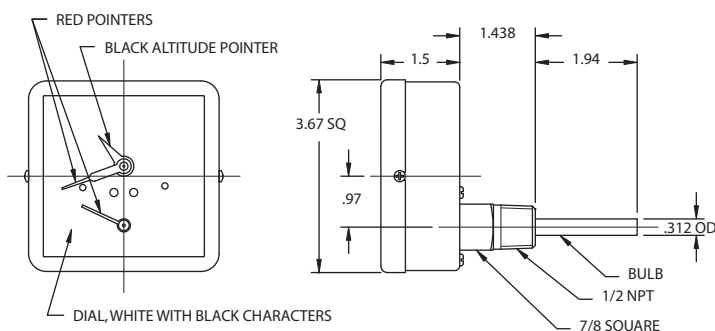
**TUBE & SOCKET** Copper Alloy

**POINTERS**  
Aluminum, red painted with black painted set pointer

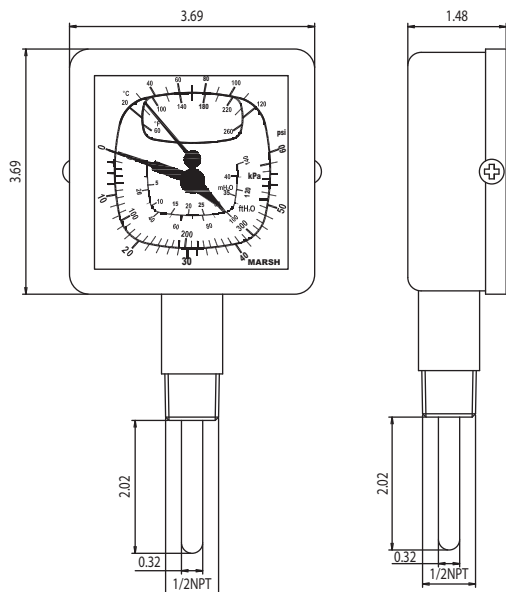
**WINDOW**  
2½" Acrylic  
3½" Glass

**WINDOW**  
2½" 2.0 lb.  
3½" 2.5 lb.

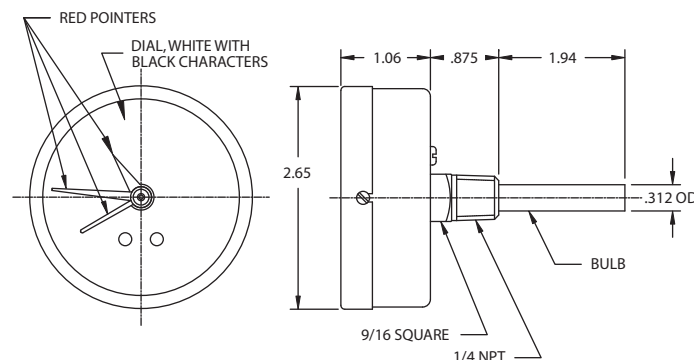
#### Y22006



#### Y22002



#### Y22026



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