

Palmer's All Star Bimetal Thermometer, with a 316SS option, make it an industry standard for resistance to harsh environments.

The **316SS Bimetal Thermometer from Palmer Wahl** is designed with deepwater drillers and offshore rigs in mind. The 316SS case resists harsh environmental conditions, meeting the rigorous needs of outdoor use.

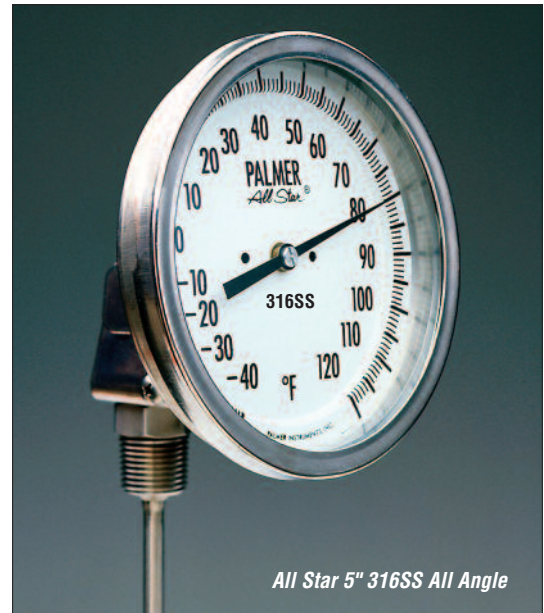
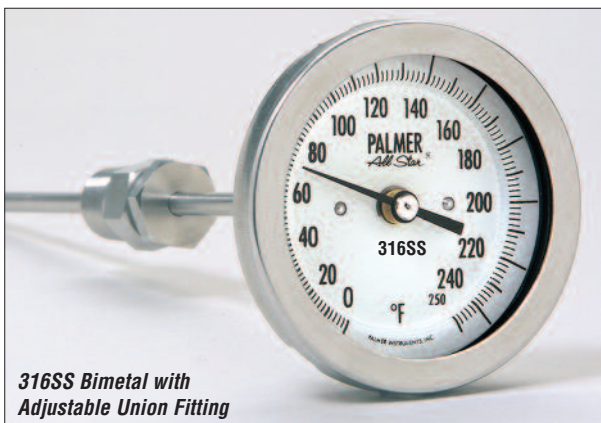
Optional Adjustable Union (shown below) easily adjusts the stem to the full depth of your thermowell for metal to metal contact, giving maximum exposure to your process. Eliminates the need to stock several different stem lengths.

Standard Styles and Dial Sizes: Popular Back Connected and versatile All Angle case styles in easy-reading 5" and space-saving 3" Dial sizes.

Ranges and Stem Lengths: Models for every application. Fahrenheit ranges from -100° up to 1000° and Celsius ranges from -50° up to 500° are available. Stem lengths up to 24" are standard with specials up to 60". Minimum stem length of 6" on Adjustable Union.

ASME B-40.3: Meets standards set by the American Society of Mechanical Engineers.

Rugged Design Features: 316SS Case, Fitting and Stem with an IP67 rating, or 316SS Fitting and Stem only. Instrument glass lens is standard, plexiglass and shatter proof safety glass are optional. Quick-lock, cam-action bezel ring with heavy duty, heat-resistant hermetically sealed gasket seals out moisture to prevent lens icing or fogging. Prevents bimetal coil freeze-up in extreme conditions. Dust-tight and water-tight to 1 meter. Built-in over-range protection and adjustable pointer are standard.



Accuracy: Accuracy is within 1% of full scale.

Easy Reading: Dials are specially fabricated of low-glare finished metal using a deep draw design for anti-parallax alignment of pointer to graduation marks. High-visibility numerals and graduations also help minimize reading errors.

Fast Response: Superior heat transfer characteristics, fast response, and consistent repeatability are achieved through the use of a high-torque, low mass bimetal sensing element. Materials and design combine to convert the sensor's movement quickly and accurately into a dial reading.

Specifications

Form: All Angle, Fixed Back Connected, All Angle Adjustable or Fixed Back Adjustable.

Case: Polished - Type 316 Stainless Steel Case and Bezel in 3" (76 mm) or 5" (127 mm) Size. Cases are Hermetically Sealed. Dust-tight and water-tight to 1 meter.

Stem: Polished-Type 316 Stainless Steel. All Welded.

Stem Length: See Stem Length Table, Page 5. Custom lengths up to 60" (152cm). 6" minimum on Adjustable Union.

Fitting: 316 Stainless Steel. 7/8" Hex with 1/2" NPT Threads Std.

Specify: (CS) 316SS Case, Fitting and Stem, or **(FS)** 316SS Fitting and Stem only, See Material Option Tables, pg 2.

Dial Face: Black Graduations and Numerals on White Background. Anti-parallax Dial Design with Linear Scale. High-Visibility Tapered-Tip Black Pointer.

Lens: Instrument Quality Glass Standard. Optional Plexiglass or Shatter Proof Safety Glass.

Recalibration: External Reset Nut. Dial Rotation Gear positions the Dial in Relation to the Pointer.

Accuracy: 1% of Full Range.

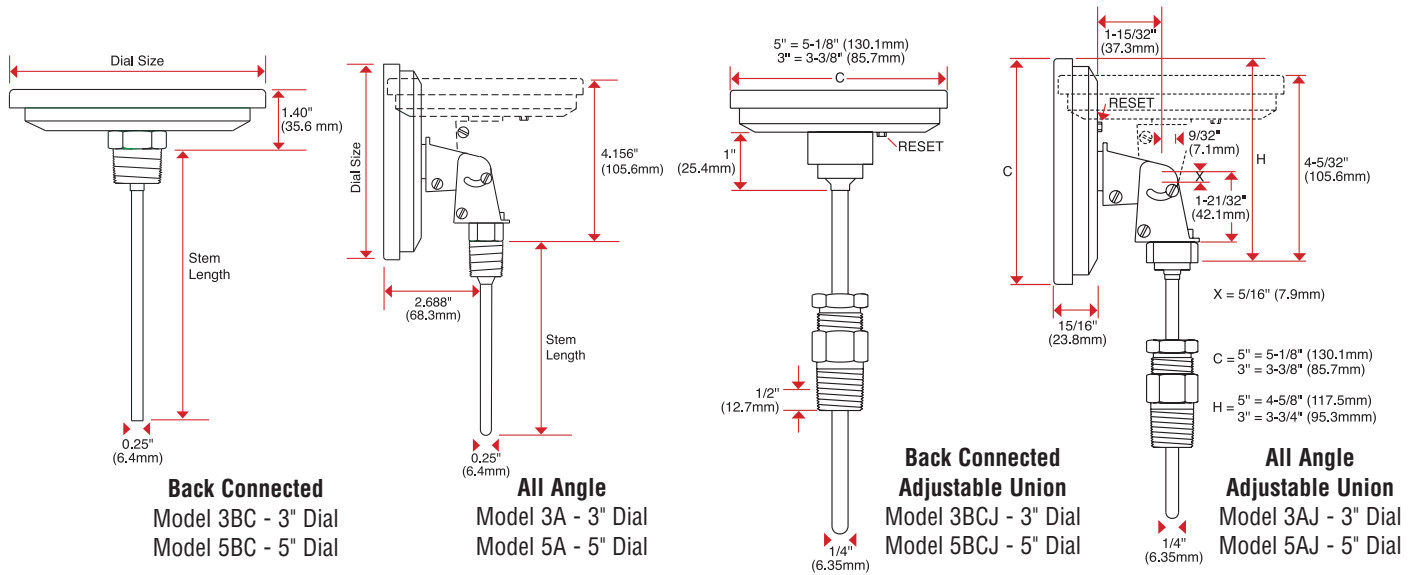
Element: Single Helix Bimetallic Coil Sensing Element, with silicone on coil, located in bottom 2-1/2 inches of thermometer stem.

Over-Range: Protected Design Allows Temporary Swings of Up to 50% of Range.

Warranty: 1 Year Limited Warranty.



Type 3BC • 5BC • 3A • 5A • 316SS Bimetal Mounting Styles



How To Order

1. Select Case Style and Dial Size Code from the table below.

Case Style and Dial Size				
Dial Size	Back Connected	All Angle Connected	Back Connected Adjustable Union	All Angle Adjustable Union
3" Dial	3BC	3A	3BCJ	3AJ
5" Dial	5BC	5A	5BCJ	5AJ

2. Select Stem Length Code from table below.

Stem Length								
Code	2.5	4	6	9	12	15	18	24
Length (in)	2.5	4	6	9	12	15	18	24
Length (mm)	63.5	102	152	229	305	381	457	610

Adjustable Union minimum Stem Length is 6". Stem Lengths up to 60" available on special request. Lengths over 30" have a 3/8" support tubing.

3. Select Temperature Range Code from the table below.

Temperature Range Codes								
3" & 5" Scales					5" Dual Range Scales			
°F Range	°Div	Code	°C Range	°Div	Code	°F/°C Range	°Div	Code
-100 to 100	2°	-100/100F	-50 to 50	1°	-50/50C	NA		
-40 to 120	1°	-40/120F	-50 to 100	1°	-50/100C	NA		
0 to 200	2°	0/200F	-20 to 120	1°	-20/120C	0 to 200/-15 to 90	2°F/1°C	0/200F&C
0 to 250	2°	0/250F	0 to 501	0.5°	0/50C	0 to 250/-20 to 120	2°F/1°C	0/250F&C
25 to 1251	1°	25/125F	0 to 100	1°	0/100C	NA		
50 to 300	2°	50/300F	0 to 150	1°	0/150C	50 to 300/10 to 150	2°F/1°C	50/300F&C
50 to 400	5°	50/400F	0 to 200	2°	0/200C	50 to 400/10 to 200	5°F/2°C	50/400F&C
50 to 500	5°	50/500F	0 to 300	5°	0/300C	50 to 500/10 to 260	5°F/2°C	50/500F&C
150 to 750 ¹	5°	150/750F	100 to 400 ¹	5°	100/400C	150 to 750/65 to 400	10°F/5°C	150/750F&C
200 to 1000 ^{1,2}	10°	200/1000F	100 to 500 ^{1,2}	5°	100/500C	200 to 1000/100 to 540	10°F/5°C	200/1000F&C

¹ Minimum stem length for these ranges is 4".
² Recommended for continuous service up to 800°F or 427°C. Can be used for intermittent service up to 1000°F or 500°C.

4. Select Option Code from below.

Options	
Code	Description
(GF)	Glycerine Filled
(SF)	Silicone Filled
(PC)	Plexiglass Cover
(SPG)	Shatter Proof Safety Glass
(1/4NPT)	1/4" NPT Fixed Thread Fitting*
(3/8NPT)	3/8" NPT Fixed Thread Fitting*
(7/8SN)	7/8"- 22 Swivel Nut Fitting*
(1/2NPS)	1/2" NPSM Union Swivel Nut*
(3/8D)	3/8" Diameter Stem with Pointed Tip*

* Not available on Adjustable Union.

5. Select 316SS Option Code below.

316SS Material Options	
Code	Description
(CS)	316SS Case, Fitting and Stem
(FS)	316SS Fitting and Stem only

316SS Part Number Example:
5BC1225/125F(SPG)(3/8D)(CS)

5" Back Connected Dial 12" Stem, 25° to 125°F Temperature Range, Shatter Proof Glass, 3/8" Diameter Stem with Pointed Tip, and 316SS Case, Fitting and Stem.