

## Model 200 Series • 300 Series Classic Industrials

Mercury Thermometers are the most reliable thermometers in the world. Palmer Industrial Thermometers set industry standards for accuracy, quality, and rugged operation. With looks to match their performance, these classic thermometers are designed and constructed for long-term industrial process service. For some applications requiring maximum response time using a union instead of a thermowell, specify one piece stem and bulb.

### Specifications

**Case Length:** 300 Series - 9" (220mm) Case, or 200 Series - 12" (305mm) Case.

**Case Material:** Extruded "V" shaped brass with chrome finish.

**Case Styles:** Straight, 90° Back Angle, Left Side, Right Side, Incline, or Recline Angle. Please contact the factory for custom models and special needs.

**Crystal:** Instrument Quality Glass, Plastic optional.

**Scale:** 300 Series: Numerals and graduations are printed on a painted metal scale, Engraved Scale for Optional ranges. 200 Series: Scales are individually engraved for each glass tube. Optional Dual Scales available.

**Glass Tube:** "Red-Reading" Lens glass, individually calibrated, thoroughly annealed and aged for permanent accuracy.

**Fill:** "Red-Reading" Mercury Fill Standard, Red Spirit Fill optional (up to 300°F/150°C only).

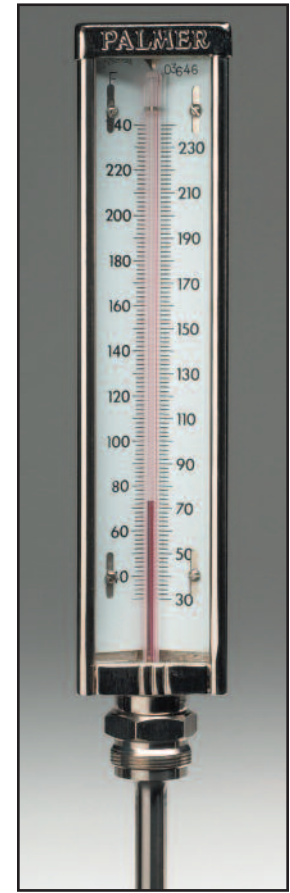
**Accuracy:** ±1/2 scale division, ±1 scale division if Red Spirit Filled. Special calibration from customer supplied set points available.

**Calibration:** Calibrated to NIST traceable standards.

**Fitting:** 1-1/4"-18 UNEF machined Brass Swivel Nut connection is standard. Stainless Steel optional.

**Bulb:** Tapered design for maximum contact and heat transfer from Thermowell. Stem and Bulb are Stainless Steel.

**Wells & Fittings:** Palmer Industrial Thermowells are listed in Palmer Catalog PW1100.



Model 209 Straight Industrial Thermometer



### 200 / 300 Series Base Model Numbers

200 Series 12" Scale Code	300 Series 9" Scale Code	Case Style
209	309	Straight
229	329	90° Back Angle
268R	368R	Right Side Angle**
268L	368L	Left Side Angle**
Discontinued	Discontinued	30° Incline Angle
249-45I	349-45I	45° Incline Angle
Discontinued	Discontinued	30° Recline Angle
249-45R	349-45R	45° Recline Angle
Discontinued	Discontinued	75° Recline Angle
Discontinued	Discontinued	105° Recline Angle

\*\* Illustration to show example of the position of stem to case. See table above for model numbers.



Left Side Angle



Right Side Angle

### 200 / 300 Series Standard Range Codes

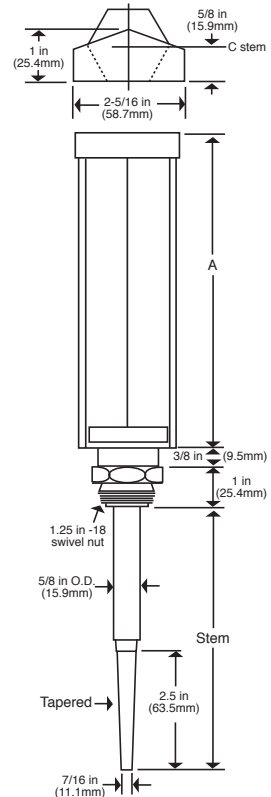
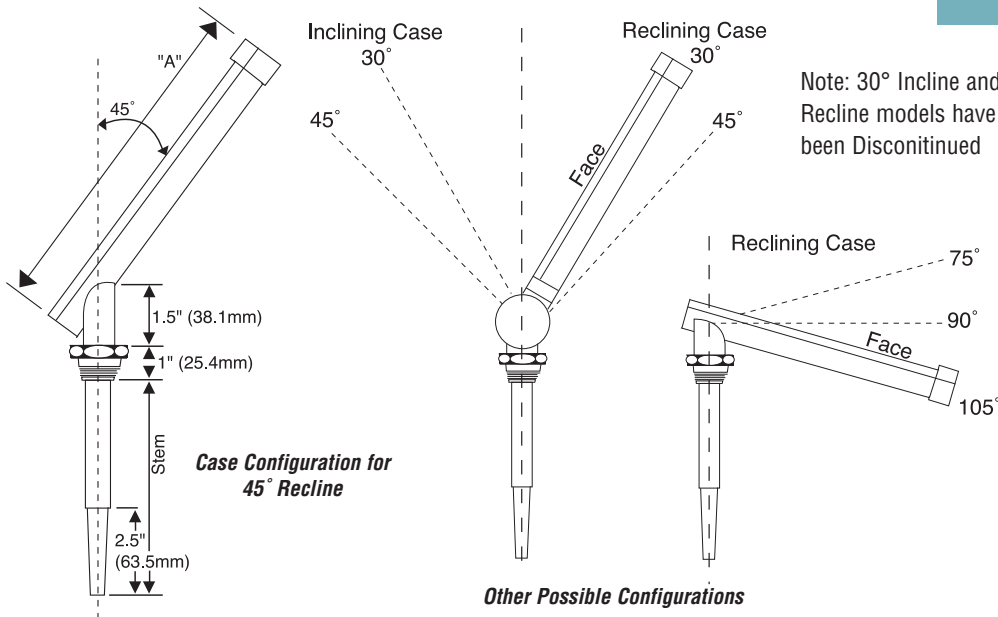
°F Code	9" Case Div	12" Case Div*	°C Code	9" Case Div	12" Case Div*
0/100F	1°	0.5°	-18/40C	1°	0.5°
0/100F&R	1°	0.5°	0/80C	1°	0.5°
30/180F	2°	1°	0/115C	1°	1°
30/240F	2°	2°	0/150C	2°	1°
170/270F	1°*	1°	10/205C	2°	2°
170/270F&P	1°*	1°			
30/300F	2°	2°			
50/400F	5°	2°			
200/300F	1°*	1°			
200/400F	2°	2°			

### 200 / 300 Series Optional Range Codes\*

°F Code	9" Case Div	12" Case Div	°C Code	9" Case Div	12" Case Div
-40/110F	2°	1°	-40/45C	1°	0.5°
-30/130F	2°	1°	40/265C	2°	2°
0/160F	2°	1°	95/405C	NA	NA
180/360F	2°	2°			
180/360F&P	2°	1°			
250/400F	2°	2°			
100/550F	5°	5°			
150/600F	NA	NA			
200/750F	NA	NA			

\* Engraved Scale

## Model 200 Series • 300 Series



Straight Case Configuration

### Ordering Information

To select a thermometer, please specify the following:

- 1) Base Model Code for Case Size and Case Style from table pg 6
- 2) Stem Length Code from table below
- 3) Range Code from tables pg 6
- 4) Specify Option Codes from table at right

200 / 300 Series Option Codes	
Code	Option Description
(DH)	Case Drain Holes
(DS)	Dual Scale
(ES)	Special Engraved Scale (Std on 200, 12")
(OPS)	One-Piece Stem/Bulb
(PC)	Plastic Crystal
(RS)	Red Spirit Fill (up to 300°F)
(SN)	304 SS Swivel Nut

200 / 300 Series Stem Length Codes	
Code	Length (mm)
3.5	3.5" (89mm)
6	6" (152.4mm)
8	8" (203mm)
12	12" (305mm)

Part Number Example			
Base Model No.	Stem Length	Temp. Range	Option Code
329	3.5	30/240F	(RS)
90° Back Angle, 9" Case	3.5" Stem Length	30° to 240°F Range	Red Spirit Fill

## Prover Tank Industrial Thermometers

Prover Tank 12" Base Model Numbers						
Stem Length	Straight	90° Back Angle	Left Side Mount	Right Side Mount	30° Incline Mount	30° Recline Mount
3.5"	210P3.5	210PBA3.5	210PLS3.5	210PRS3.5	210PI3.5 <sup>1</sup>	210PR3.5 <sup>1</sup>
6"	210P6	210PBA6	210PLS6	210PRS6	210PI6 <sup>1</sup>	210PR6 <sup>1</sup>
8"	210P8	210PBA8	210PLS8	210PRS8	210PI8 <sup>1</sup>	210PR8 <sup>1</sup>
12"	210P12	210PBA12	210PLS12	210PRS12	210PI12 <sup>1</sup>	210PR12 <sup>1</sup>

<sup>1</sup> Discontinued

Part Number Example		
Base Model No.	Stem Length	Temp. Range
210P	3.5	10/120F
Straight, 12" Case	3.5" Stem Length	10° to 120°F Range

- Range: 10° to 120°F (1/2° divisions) Add Range Code **10/120F** to Base Model Number to complete a Prover Tank Model number
- Over-range reservoir to 150°F
- Nickel Plated Scale to resist gasoline vapors
- 12" Brass Case/Chrome Finish
- "Red-Reading" Mercury Fill

NOTE: Longer Stem Lengths available on request.



Register your product at [www.palmerwahl.com/register](http://www.palmerwahl.com/register)

Specifications subject to change without notice