

PALMER

Designed and Built in Asheville,
North Carolina

Model 1050 Direct Drive Rigid Stem 5" Dial Thermometers with 1/2" NPT Fitting and 1/4" Diameter Stem

Palmer's experience in the thermometer field enables us to offer a line of filled system Dial Thermometers with uncompromising accuracy. Used in many different applications, including power plants, chemical processing plants, breweries, canneries and HVAC equipment, our Dial Thermometers are engineered to provide long service life with an extremely dependable thermal system.

Direct-Drive Double-Wound Bourdon Coil: With this construction, the pointer shaft operates directly from the center coil. This eliminates the conventional sector and pinion type movement and its multiplying mechanism which are subject to wear and tear and subsequent inaccuracies. This unique feature results in a temperature indicator that is extremely responsive to temperature changes and will maintain its accuracy for many years.

Stainless Steel Bezel Ring and Glass Cover: provides a weather-tight seal.

Easy to Read Dial: Every thermometer dial is constructed of heavy gauge aluminum with a low glare finish. High contrast black numerals, graduations, and pointer all contribute to minimize reading errors.

Liquid Actuated Systems: (Standard) These temperature systems are filled with a non-toxic, odorless, organic, and non-flammable liquid up to 500°F. It is non-hazardous, environmentally friendly with no hydrogens, and proven to be an excellent substitute for Mercury. (Mercury Actuated Systems are available). Palmer Model 1050 is a superior alternative to bimetallic thermometers.

Calibration: Tapered-tip Pointer can be adjusted for calibration.

Interchangeability: Model 1050 Dial Thermometers have a 1/4" stem with a 1/2" NPT Fitting and are interchangeable with a bimetal thermometer type thermowell with a .260" diameter bore.

Fully Adjustable All Angle Case: Model 1050 Series Dial Thermometers may be adjusted during installation and locked to provide the best reading angle. Optional Center Back Connection allows for the head to be rotated to adjust orientation after installation.



1050 Direct Drive Rigid
Dial Thermometer

Model 1050 Series Specifications

Form:	Adjustable All Angle Case, Optional Center Back Connected Case
Case:	Polished 316 Stainless Steel Case. 5" Dial (127 mm)
Fill:	Liquid Actuated: < 500°F Mercury Actuated: > 500°F
Dial Face:	Black Graduations and Numerals on White Background. Linear Scale with High-Visibility Tapered-Tip Black Pointer.
Bezel/Lens:	Stainless Steel Bezel Ring and Glass Cover, Gasket Sealed Plexiglas - Optional
Fitting:	1/2" NPT Fixed Thread Fitting, 304 Stainless Steel. Optional 7/8"-22 Swivel Nut Fitting available.
Stem:	3/16" (4.8mm) Diameter Stem, 304 Stainless Steel
Stem Lengths:	Standard Lengths from 4" (102 mm) to 24" (610 mm). Measure stem length from 1/2" up on threads to tip.
Bulb:	.250" (6.4 mm) Diameter Bulb, 304 Stainless Steel
System:	Case Compensated System with Double Wound Direct Drive Bourdon Coil.
Accuracy:	± One Scale Division.

Specifications subject to change without notice.

January
2022

Palmer Wahl Instruments, Inc. • Toll Free: 800-421-2853 • Phone: 828-658-3131 • www.palmerwahl.com

Applications

Chemical and Petrochemical	Pneumatics
Hazardous Environments	Compressor Controls
Process Engineering	Pump Protection
Pulp and Paper Industry	Shipping
Water Treatment Systems	



Dial Model 1050 Series Ordering Guide

MODEL 1050 SERIES - DIRECT DRIVE RIGID STEM DIAL

Step 1 - Select: Dial Size and Style

Code	Dial Size and Style
1050	5" Direct Drive Rigid Stem Dial, All Angle Case
1050AR	5" Direct Drive Rigid Stem Dial, Center Back Connected Case

Step 2 - Select: Stem Length

Code	Stem Length (Includes Bulb)
4	4 inches (102 mm)
6	6 inches (152 mm)
9	9 inches (229 mm)
12	12 inches (305 mm)
15	15 inches (381 mm)
18	18 inches (457 mm)
24	24 inches (610 mm)

If Stem lengths over 24" are required please call Customer Service.

Step 3 - Select: Temperature Range

Code	°F Range	° Div	Code	°C Range	° Div	Fill
-100/100F	-100° to 100°	2°	-60/40C	-60° to 40°	1°	Liquid Actuated
-30/130F	-30° to 130°	1°	-30/60C	-30° to 60°	1°	
30/180F	30° to 180°	1°	NA	NA		
0/150F	0° to 150°	1°	-10/80C	-10° to 80°	1°	
0/240F	0° to 240°	2°	-10/120C	-10° to 120°	1°	
0/300F	0° to 300°	2°	-10/150C	-10° to 150°	1°	
0/400F	0° to 400°	5°	0/220C	0° to 220°	2°	Mercury Actuated
0/500F	0° to 500°	5°	0/280C	0° to 280°	2°	
0/600F	0° to 600°	5°	0/320C	0° to 320°	2°	
0/750F	0° to 750°	5°	0/400C	0° to 400°	2°	
200/750F	200° to 750°	5°	100/400C	100° to 400°	2°	
200/950F	200° to 950°	5°	100/500C	100° to 500°	5°	
200/1200F	200° to 1200°	10°	NA	NA		Ultra High Range

Mercury Bulbs are available below 500°F if products containing mercury can be shipped to your state. Contact us for details.

Dual Scale Ranges: specify F&C Fahrenheit and Réaumur: 0° to 240°F&R; 0° to 150°F&R.

Step 4 - Select: Options

Code	Options
F&C	Dual Range Scale
(PC)	Plexiglas Cover
(S)	7/8"-22 Swivel Nut Fitting
(SS)	316 Stainless Steel Fitting and Stem

Dial	Stem Length	Temperature Range	Options
1050__			
Insert Codes in boxes above to build part number			

Model Number Example:
105090/600F(SS): 5 inch Dial, 9 inch Stem Length, 0° to 600°F Mercury Actuated Temperature Range, 316 Stainless Steel Fitting and Stem.



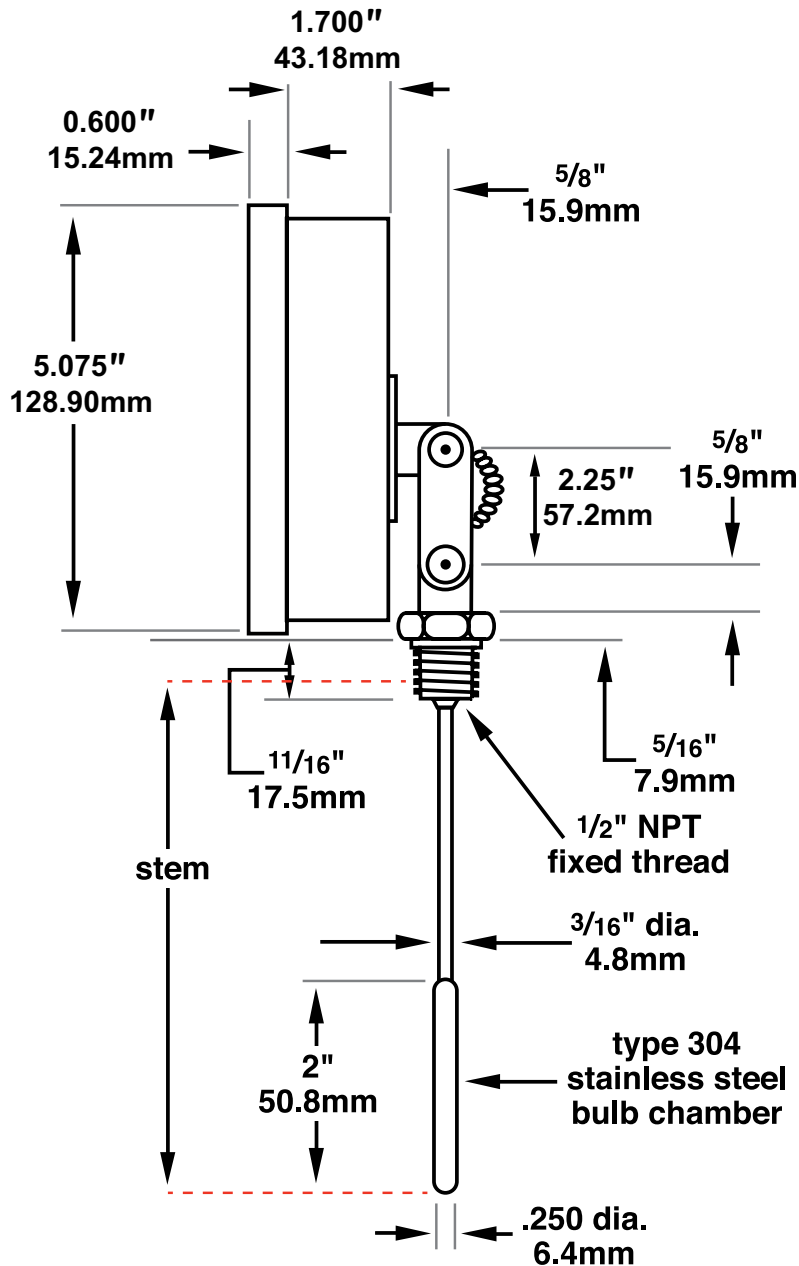
We build to order:
 if your process requires
 an option not shown here
 please call
 Customer Service.

Specifications subject to change without notice.

Dial Model 1050 Series Dimensional Drawings

Adjustable All Angle Case Rigid Dial Thermometer with 1/2" NPT and 1/4" Diameter Stem

5" Dial - Model 1050



**We build to order:
 if your process requires
 an option not shown here
 please call
 Customer Service.**

**To measure stem length measure from 1/2"
 up on threads of fitting to tip of stem.**

Specifications subject to change without notice.

January 2022

Palmer Wahl Instruments, Inc. • Toll Free: 800-421-2853 • Phone: 828-658-3131 • www.palmerwahl.com



CONTAINS
MERCURY

CALIBRATION
TRACEABLE TO
NIST



MERCURY FREE
OPTIONS

THREE YEAR
3
WARRANTY



MNC
Manufactured in North Carolina

ISO 9001:2015
CERTIFIED QUALITY
MANAGEMENT SYSTEM



**MADE
IN THE
USA**



Palmer Wahl
 BEYOND THE SCALE

Connections and Thermowells for Rigid Dial Thermometer Bulbs

		RIGID STEM DIAL THERMOMETERS				
		Models 50A/50AL	Model 1050		Model 950	
	Stem Diameter	5/8"	3/16"	3/16"	3/8"	3/8"
	Bulb Diameter	7/16"	1/4"	1/4"	3/8"	3/8"
	Probe Connection	1-1/4"-18 UNEF Swivel Nut	1/2" NPT Fixed Fitting	7/8"-22 Swivel Nut Fitting	1/2" NPT Adjustable Union	3/4" NPT Adjustable Union
Open End	Standard Union Connection 3/4" NPT	1140-7	1120-7	1150-7	1120-7	NA
	Standard Union Connection 1" NPT	1140-8	1120-8	1150-8	1120-8	NA
	Extension Neck Lagging Union Connection 3/4" NPT	1141-7	1121-7	NA	1121-7	NA
	Extension Neck Lagging Union Connection 1" NPT	1141-8	1121-8	NA	1121-8	NA
	Surface Mount Flanged Union Connection	1140-9	1120-9	1150-9	1120-9	NA
Closed Receptacle	Standard Thermowell	1140 Series Thermowell	NA	CP-990-1 (3.5" Probe Length Only)	1130 Series Thermowell	NA
	Extension Neck Lagging Thermowell	1141 Series Thermowell	NA	NA	1131 Series Thermowell	NA
	Built-up Heavy Wall Thermowell	1144 Series Thermowell	NA	NA	NA	NA
	Built-up Extension Neck Lagging Heavy Wall Thermowell	1145 Series Thermowell	NA	NA	NA	NA
	Weld-in Thermowell	1146 Series Thermowell	NA	NA	1136 Series Thermowell	NA
	Flanged Thermowell	1147 Series Thermowell	NA	NA	1137 Series Thermowell	NA

