

Industrial Thermometers

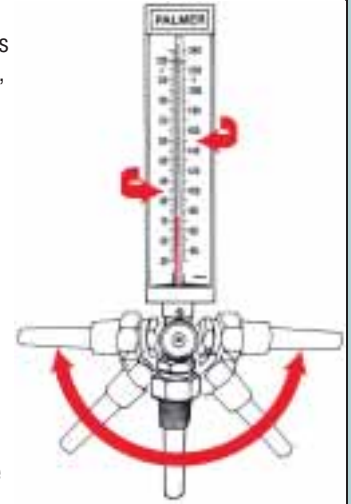
Economy Industrials

Model 9AL • 9FL • 9ALSB • 9FLSB

Economy Industrial Thermometers



- **NEW "SKY BLUE" Fill (SB) Environmentally Safe Models** are filled with a non-toxic, mercury-free Blue Liquid. **SB** Models are available in 9" Cases, with either 3-1/2" or 6" Stem Lengths, Ranges up to 300°F. Optional Red Spirit Fill also available.
- **Flex Angle Adjustment:** Just two screws permit cases to be rotated 180° and stems to be positioned in 10° increments. Users can "infinitely" adjust Economy Line Industrial Thermometers to virtually any viewing angle required.
- **Easy Readability:** Standard Lens front glass tube is "Red Reading" Mercury-Filled or Sky Blue Fill. Compact, yet visible 9" (229mm) Plastic or Aluminum, or 12" (305mm) Aluminum (only) cases, fitted with a "V" shaped white aluminum scale graduated with bold black lines and numerals.
- **Accuracy:** Economy Line Industrial Thermometers are calibrated against standards traceable to the National Institute of Standards and Technology (NIST) and are guaranteed accurate to ±1 scale division.
- **Construction:** User selection of either tough, black-finished molded high temperature Plastic Case (**9FL** Models) or extruded, black-finished Aluminum Case (**9AL** or **12AL** Models). Glass crystal, machined Brass Swivel Nut, and cast aluminum stem and seat are standard on all 3-1/2" stems.
- **Connection Assembly:** Tapered Bulb Chamber allows maximum metal-to-metal contact with matching tapered thermowell for fast response and increased accuracy. Brass Swivel Nut is industry standard 1-1/4" -18 UNEF thread.
- **Range and Stem Length Selection:** Full selection of Fahrenheit or Dual F & C Range scales available from -40 to 550°F (-40 to 290°C). Stock stem lengths are 3.5" (89 mm), 6" (152 mm), 8" (203 mm), 9" (229 mm), and 12" (305 mm).
- **Air Duct Construction:** Air Duct Models feature a super-sensitive bare bulb protected by a 3/4" diameter perforated brass bulb guard. This design allows exposure to circulating air while still protecting the glass tube from any impact.



TEMPERATURE RANGE CODES			
°F Range Codes	Div	Dual, °F & °C Range Codes	Div
-40/110F	2°F	-40/110F / 40/43C	2°F/2°C
0/120F	1°F	0/120F / -17/49C	1°F/0.5°C
0/160F	2°F	0/160F / -17/71C	1°F/0.5°C
20/180F	2°F	20/180F / -6/82C	2°F/1°C
30/240F	2°F	30/240F / 0/115C	2°F/1°C
30/300F	2°F	30/300F / -11/49C	2°F/1°C
AL only 50/400F*	5°F	50/400F / 10/204C*	5°F/2°C
AL only 100/550F*	5°F	100/550F / 40/290C*	5°F/2°C

* Not available in environmentally safe "Sky Blue" Fill

BASE MODEL NUMBERS									
	Aluminum Case				Plastic Case				
	Mercury Fill		Sky Blue Fill		Mercury Fill		Sky Blue Fill		
Case Size	9" Scale*	9" Scale*	9" Scale*	9" Scale*	9" Scale	9" Scale	9" Scale	9" Scale	9" Scale
Bulb Type	Tapered	Air Duct	Tapered	Air Duct	Tapered	Air Duct	Tapered	Air Duct	Air Duct
Stem Length:									
3.5" (89mm)	9AL3.5	N/A	9ALSB3.5	N/A	9FL3.5	N/A	9FLSB3.5	N/A	
6" (152mm)	9AL6	9ALAD6	9ALSB6	9ALADSB6	9FL6	9FLAD6	9FLSB6	9FLADSB6	
8" (203mm)	9AL8	N/A	9AL8**	N/A	9FL8	N/A	9FL8**	N/A	
9" (229mm)	9AL9	N/A	9AL9**	N/A	9FL9	N/A	9FL9**	N/A	
12" (305mm)	9AL12	9ALAD12	9AL12**	9ALAD12**	9FL12	9FLAD12	9FL12**	9FLAD12**	

* Optional 12" Aluminum Case available. ** Available in Red Spirit Fill only, add Code "RS" to Model Number

Model 9AL • 9FL • 9ALSB • 9FLSB

SPECIFICATIONS

Form	All Angle Adjustable
Case	Painted Aluminum (AL) or molded Plastic (FL)
Case Size	9" (220mm) Plastic or Aluminum Case, optional 7" and 12" available
Stem Material	Standard cast Aluminum Stem and Seat
Stem Length	Listed in "Base Model" table, pg 2
Ranges	Listed in "Range" table, pg 2
Bulb	Choice of tapered Bulb Chamber or perforated Air Duct design
Fitting	1-1/4" - 18 UNEF machined Brass Swivel Nut
Scale Face	High visibility V-shaped painted white aluminum scale, black markings
Glass Tube	"Red Reading" Mercury Fill, Sky Blue Fill, Red Spirit Fill optional
Crystal	Glass Crystal Standard
Accuracy	Accurate to ±1 scale division
Calibration	Calibrated to NIST traceable standards
Warranty	One year limited warranty

OPTION CODES

Options Description	How to Order
7" (178 mm) Case (Sky Blue not available)	Substitute "7" in place of "9" inch Scale in Base Model No. Table
12" (305 mm) Case (Sky Blue not available)	Substitute "12" in place of "9" inch Scale in Base Model No. Table (Aluminum Case only)
Brass Stem and Seat	Option code (B)
Plastic Crystal	Option code (PC)
Red Spirit Fill (300°F/150°C limit)	Option code (RS)
Stainless Steel Stem/Seat material	Option code (S)
Adjustable, Tilting Air Duct Flange	Order Part No. "58" as a separate item
Flanged Union Connection	Order Part No. 1140-9 or 1141-9

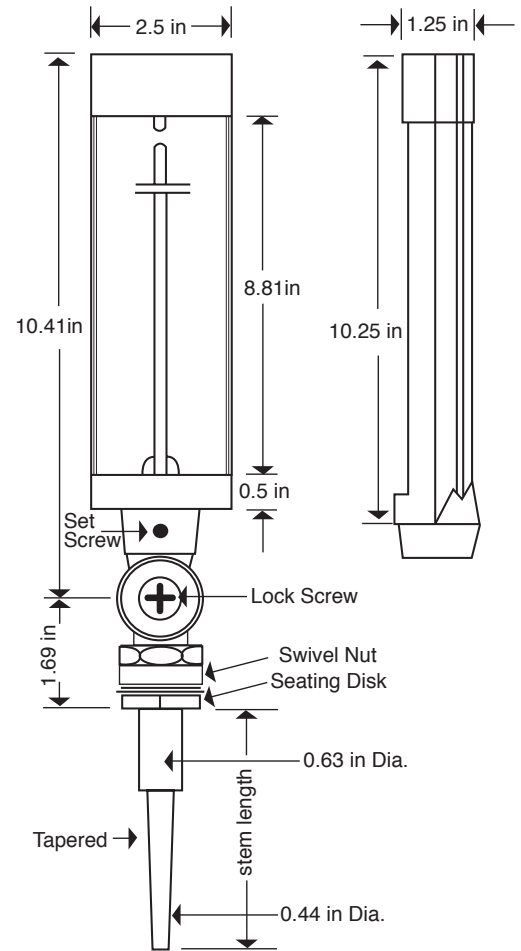
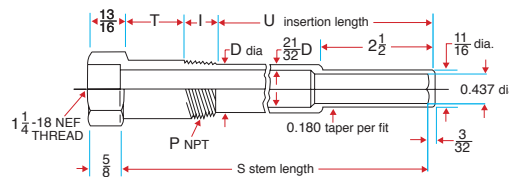
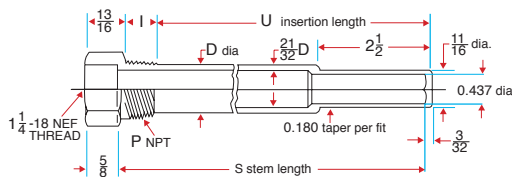
Standard Three holes drilled in flange; 9/32" (7.1mm) dia. equally spaced on 2-5/16" (57.7mm) dia. bolt circle. **Specify either:** Model No. 1140-9: 0.75" (19.1mm) Flanged Union Connection
Model No. 1141-9: 2.5" (63.5mm) Extended Neck Flanged Union

	Base Model No.	Temp. Range	Option Code
Sample Model Number	9FLAD6	30/240F & C	B
Sample Description	9" Case Plastic Case Air Duct 6" Stem	30/240°F & 0/114°C Dual Scale Range	Brass Stem and Seat

ECONOMY THERMOWELLS

Well Material	REGULAR SERIES THERMOWELLS			LAGGING EXTENSION THERMOWELLS			
	Stem lgth. "S"	Insertion lgth. "U"	Model No.	Stem lgth. "S"	Insertion lgth. "U"	Lagging Ext. "T"	Model No.
Cast Brass	3.5"	2.5"	1140-203-01A	3.5"	1.75"	1"	1141-203-01A
Cast Brass	6"	5"	1140-206-01A	6"	2.5"	2.5"	1141-206-01A
Mach. Brass	8"	7"	1140-208-01	8"	4"	3"	1141-208-01
Mach. Brass	9"	8"	1140-209-01	9"	5"	3"	1141-209-01
Mach. Brass	12"	11"	1140-212-01	12"	8"	3"	1141-212-01

For a full listing of Industrial Thermometer Thermowells and Union Connections, Please Request catalog PW 1100



Dimensions for 9" Case Models



Air Duct Stem Model with Bare Bulb

Calibration Services Available