

# Comparison of Bristol® Thermometers

Filled System Thermometers Calibration Error Tolerance +/- 0.5%									
Class	Range Limits	Span Limits		Ambient Temperature Compensation (3)	90% Response Time (2)	Maximum Capillary Length (3)	Bulb Sizes		
		Minimum (1)	Maximum				Diameter	Sensitive	
Liquid	1A	-175 to +200° F	250° F	375° F	8 - 10 Sec.	140 ft.	3/8"	1.1" to 3.6"	
		-125 to +350° F	200° F	475° F					
		0 to +500° F	50° F	500° F					
	1B	-175 to +200° F	250° F	375° F		Case			10 ft.
		-125 to +350° F	200° F	475° F					
		0 to +500° F	50° F	500° F					
Gas	3B	-350 to +0° F	350° F	1000° F	6 - 12 Sec.	1 - 25 ft.	9/16"	8"	
		-300 to +400° F	200° F						
		Above 400° F	400° F						

(1) Minimum span depends on minimum bulb temperature, maximum ambient temperature, and capillary length.  
 (2) Plain bulb in agitated water.  
 (3) +/- 25° F ambient temperature change for +/- 0.5% error tolerance.  
 (4) See Product Data 805ds2 for span limitations.

*The above table provides a quick comparison of standard thermometer systems as manufactured by Emerson Process Management. Only basic specifications are given in order to avoid undue complexity.*

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