

Temperature Products

Series 8000 Vapor Actuated Remote Reading Equipment Thermometers

DESCRIPTION

Series 8000 2", 2-1/2", and 3-1/2" vapor actuated, remote reading thermometers are low cost panel mounted instruments that are readily adaptable to a wide variety of applications. They are used in frozen food displays, refrigerators and milk coolers, water chillers, diesel and gasoline engines, dishwashers, incubators, cooking vats, film developers, ovens, and air ducts.

The temperature at the bulb is indicated by measuring the vapor pressure of the filling medium which increases with temperature. The vapor pressure-temperature relationship is not linear, so that the low temperature portion of the scale is compressed with respect to the high temperature portion of the scale. Therefore, for best readability and accuracy, the range should be selected so that the working temperature is indicated in the upper half of the scale.

An advantage of vapor actuated thermometers is that no temperature compensation is necessary at the indicating head or the capillary. The thermometer will indicate the temperature at the bulb regardless of ambient temperature surrounding the head or capillary.

SPECIFICATIONS

DIAL: Steel, white background with black letters

CASE: Drawn steel, black finish

POINTER: Aluminum, black finish, adjustable

RING AND WINDOW: One piece polycarbonate, threaded

BOURDON TUBE: Non-ferrous

CAPILLARY: Brass armored, 10 feet standard

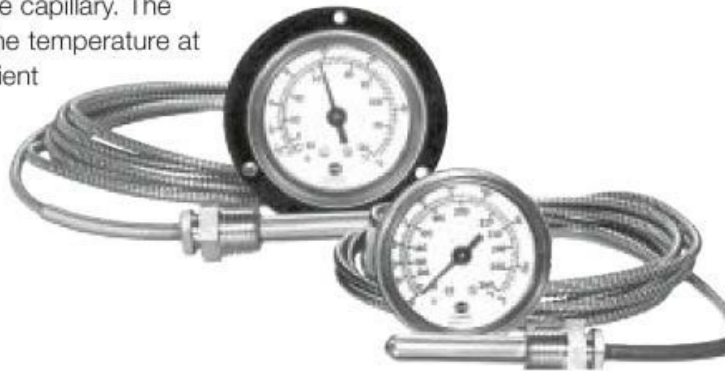
MOVEMENT: GLASSTUF®, glass filled nylon

CONNECTION: 1/2-14 NPT, brass union

RANGES:

Stock Ranges: -20°F to 120°F (-28°C to 48°C); 60°F to 260°F (20°C to 126°C); 50°F to 350°F (10°C to 176°C); 200°F to 450°F (93°C to 232°C)

Optional Ranges: -40°F to 65°F (-40°C to 18°C); 0°F to 100°F (-17°C to 37°C); 0°F to 150°F (-17°C to 65°C); 20°F to 220°F (5°C to 104°C); 30°F to 240°F (0°C to 115°C)



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AMETEK®

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ISO 9001 REGISTERED MANUFACTURER

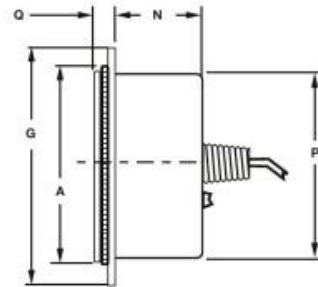
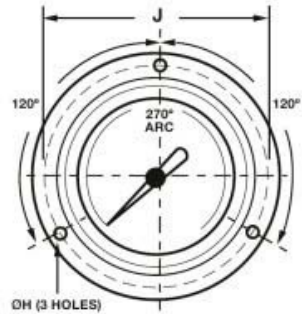
WHEN UNDER PRESSURE THINK OF US!

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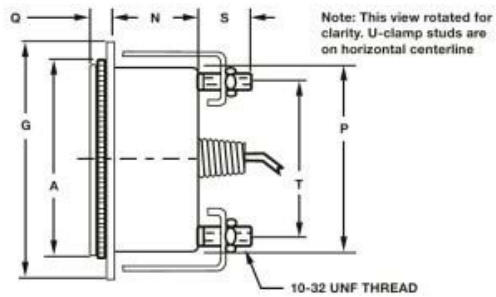
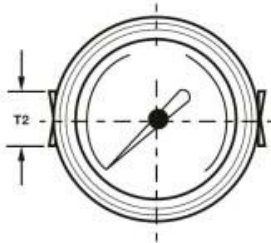
Model 8514
Front Flanged



INCHES
(MM)

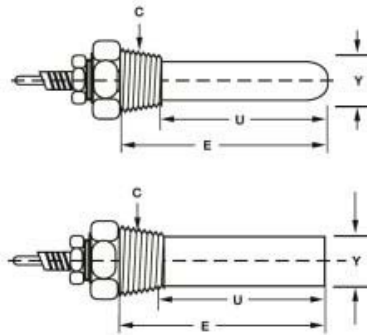
DIAL SIZE	UNIT	A	G	H	J	N	P	Q
2"	inches	2.25	2.81	.156	2.562	1.09	2.11	.24
	mm	57.2	71.4	4.0	65.1	27.7	53.6	6.1
2-1/2"	inches	2.80	3.53	.156	3.125	1.09	2.59	.30
	mm	71.1	89.7	4.0	79.4	27.7	65.8	7.6
3"	inches	3.88	4.84	.219	4.25	1.09	3.64	.29
	mm	98.6	122.9	5.6	108.0	27.7	92.5	7.4

Model 8544
U-Clamp



DIAL SIZE	UNIT	A	G	N	P	Q	S	T	T2
2"	inches	2.25	2.28	1.09	2.11	.24	.81	1.62	.75
	mm	57.2	57.9	27.7	53.6	6.1	20.6	41.2	19.1
2-1/2"	inches	2.80	2.81	1.09	2.59	.30	.81	2.20	.75
	mm	71.1	71.4	27.7	65.8	7.6	20.6	55.9	19.1
3"	inches	3.88	3.94	1.09	3.64	.29	.81	3.25	.75
	mm	98.6	100.1	27.7	92.5	7.4	20.6	82.6	19.1

BULB CONNECTION	C	UNIT	E	U	Y
Brass union connection	1/2-14 ANPT	inches	2.70	2.14	.44
		mm	68.6	54.4	11.2
Brass separable socket	1/2-14 ANPT	inches	2.76	2.20	.56
		mm	70.1	55.9	14.2
Series 300 separable socket	1/2-14 ANPT	inches	2.88	2.32	.50
		mm	73.2	58.9	12.7



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ORDERING INFORMATION

Model 85

CASE _____	-1
1 = Front flange, black steel	
4 = U-clamp, black steel	
RING WINDOW _____	-4
4 = Threaded polycarbonate	
CAPILLARY AND BULB CONSTRUCTION _____	-1
1 = Copper	
2 = 300 series steel	
CAPILLARY PROTECTION _____	-5
2 = Protected head end with stainless steel spiral spring reinforcing	
5 = Flexible armored brass	
6 = Flexible armored stainless steel	
CONNECTION TYPE _____	-2
2 = 1/2-14 ANPT brass union connection	
6 = 1/2-14 ANPT brass separable socket	
8 = 1/2-14 ANPT 300 series stainless steel separable socket	

Example Shown Above:

85-1-4-1-5-2

Model 8514, front flanged, threaded polycarbonate window, copper capillary and bulb, flexible armored brass capillary protection, 1/2-14 ANPT brass union connection

* For additional options and codes, please contact your nearest AMETEK USG Stocking Distributor or our Customer Service Department at (215) 355-6900 or (863) 534-1504.

SPEC NUMBER SELECTION CHART

Connection	Model 8544-152 (U-Clamp)		Model 8514-152 (Front Flange)
	2"	2-1/2"	2-1/2"
	1/2-14 NPT Brass Union	1/2-14 NPT Brass Union	1/2-14 NPT Brass Union
Range	Spec No.	Spec No.	Spec No.
-20°F to 120°F	138124	138180	138184
60°F to 260°F	138125	138181	138185
50°F to 350°F	-	138182	138186
200°F to 450°F	-	138183	-

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