

## GAS ACTUATED THERMOMETER

REOTEMP's Gas Actuated Thermometers combine advanced gas coil technology with a state-of-the-art adsorbent-(Class IV) thermal system, producing a superior temperature measurement instrument that can be fitted to a wide variety of applications. Features include high accuracy, low ambient error, no head error, and a high degree of over-range protection. The compact (3/8" diameter x 3" active length) bulb, and a wide range of case styles and thermal systems, allow great flexibility in installation. The linear dial on all REOTEMP gas thermometers provides a consistent 1% accuracy across the full span of each range. This, combined with over twenty Fahrenheit and dual ranges, from -320°F to +1200°F, provides complete coverage of all normal temperature requirements.



**Looking for Smaller Sized Dials?** Call REOTEMP customer service to inquire about gas-actuated vapor thermometers.



**Note:** Thermowells should be used whenever the stem or bulb would be exposed to pressure, corrosion, velocity, abrasion or shear forces. Thermowells also make it possible to remove the thermometer without losing pressure or the contents of the process.



Accuracy



Custom Logo



Made in the USA

### FEATURES / BENEFITS

- Accuracy  $\pm 1\%$  Full Scale
- Can Handle a Wide Temperature Range Up to 1200°F
- Wide Variety of Wall, Panel and Direct Mounting Options
- Capillary Lengths Up to 99 Feet
- OEM Logo Dials/Custom Dials
- One Year Warranty

### SPECIFICATIONS

<b>Accuracy</b>	$\pm 1\%$ Full Scale, Calibration to NIST Traceable Standards
<b>Ranges</b>	°F, °C, and Dual Scale Ranges Available from -320°F to 1200°F (-200°C to 650°C)
<b>Overrange</b>	Minimum 10% of span above top of range, or 1300°F (704°C), whichever is less.
<b>Ambient Error</b>	1/4% of Span per 25°F Change in Ambient Temperature at Midscale
<b>Dial Size</b>	4-1/2" & 6" Dials, White with Black Markings
<b>Case Material</b>	Stainless Steel, Polypropylene, or Aluminum
<b>Case Styles</b>	Panel Mount, Surface Mount, or Direct (stem) Mount
<b>Bulbs</b>	316SS, 3/8" Diameter x 3" Active Length, Other Diameters and Lengths are Available
<b>Thermal Systems</b>	Stainless steel capillary with stainless steel spring armor (up to 40ft). Over 40 feet, stainless steel interlock armor is standard. Direct mount stems, 316 SS, 4" to 48".
<b>Pointer</b>	Aluminum, Slotted Adjustable Type to Permit Zero-Set Adjustments
<b>Lens</b>	Glass (Standard), Safety Glass and Acrylic Options Available. Aluminum style is available with glass only.
<b>Immersion</b>	Minimum 2" in liquid, and 4" in gas for most ranges. Certain ranges require up to 4" in liquids & 5" in gas.
<b>Process Connection</b>	Plain Bulb, 1/2" NPT Union, 1/2" NPT sliding union on 12" bendable extension, or thermowell. Note: Thermowells must be used whenever the bulb would be exposed to pressure, fluid velocity, or corrosive media.

## GAS ACTUATED THERMOMETER

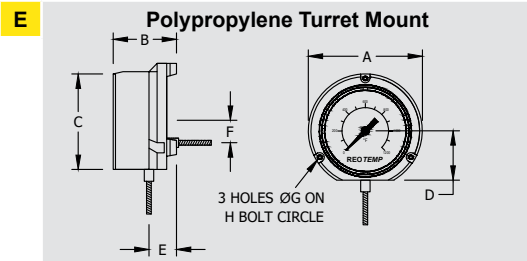
**HOW TO ORDER:** Choose options to build a part number. For example: G45ER87L15FBXAW

### G45ER

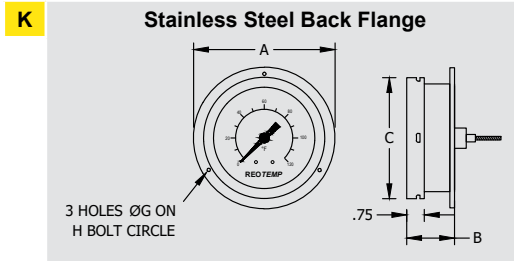
#### CASE STYLE

Mount Type	Case Type	Code	Connection	Dial	A	B	C	D	E	F	G	H
Wall Mount	Polypropylene Turret Mount (E)	G45ER	Rear	4 1/2"	5.83"	2.41"	5.08"	2.62"	1"	.2"	.24"	5.39"
		G45EL	Lower	4 1/2"	5.83"	2.41"	5.08"	2.62"	1"	.2"	.24"	5.39"
	Stainless Steel Back Flange (K)	G45KR	Rear	4 1/2"	5.88"	2.15"	5.04"	-	-	-	.22"	5.38"
		G45KL	Lower	4 1/2"	5.88"	2.15"	5.04"	-	-	-	.22"	5.38"
		G60KR	Rear	6"	7.5"	2.15"	6.38"	-	-	-	.25"	6.84"
		G60KL	Lower	6"	7.5"	2.15"	6.38"	-	-	-	.25"	6.84"
Direct Mount	Stainless Steel All-Angle Direct Mount (D)	G45DA	Adjustable	4 1/2"	5.04"	2"	-	-	1.7"	-	-	-
		G60DA	Adjustable	6"	6.38"	2.15"	-	-	1.7"	-	-	-
Panel Mount	Aluminum Front Flange Hinge Ring (F)	G45FR	Rear	4 1/2"	6.31"	1.63"	-	4.88"	-	1.35"	.19"	5.38"
		G60FR	Rear	6"	7.87"	1.59"	-	6.34"	-	1.75"	.19"	6.69"
	Stainless Steel Semi-Flush Front Flange (S)	G45SR	Rear	4 1/2"	5.88"	2.15"	5.04"	4.51"	-	1"	.22"	5.38"
		G60SR	Rear	6"	7.5"	2.15"	6.38"	5.88"	-	1"	.25"	6.84"
	Stainless Steel "U" Clamp (U)	G45UR	Rear	4 1/2"	5.04"	-	-	4.51"	-	-	-	-
		G60UR	Rear	6"	6.38"	-	-	5.88"	-	-	-	-

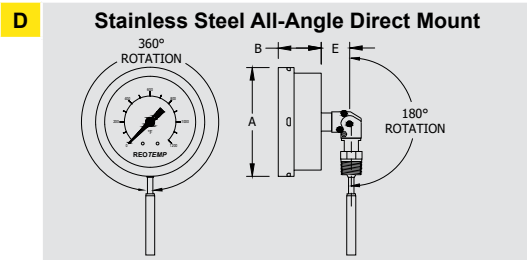
All dimensions are in inches.



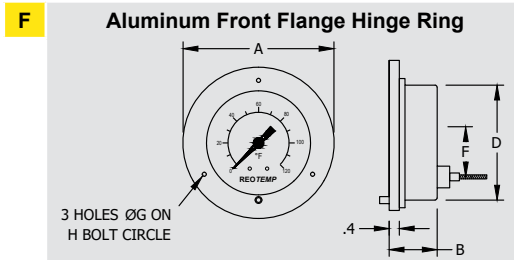
All dimensions are in inches.



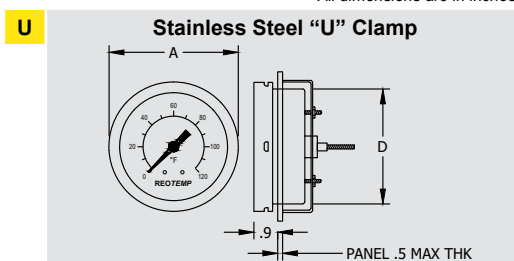
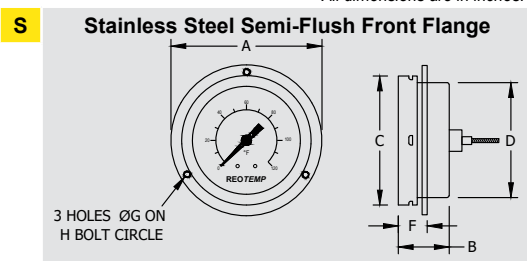
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All dimensions are in inches.



## GAS ACTUATED THERMOMETER

87

L15

### THERMAL SYSTEM

### CAPILLARY LENGTH

All-Angle Direct Mount with 1/2" NPT (with "D" Case Only)

- 04 = 4" Stem x 3/8" Diameter
- 06 = 6" Stem x 3/8" Diameter
- 09 = 9" Stem x 3/8" Diameter
- 07 = 12" or Longer Stem x 3/8" Diameter (specify stem length)\*

Sliding Union 1/2" NPT on Bendable Extension

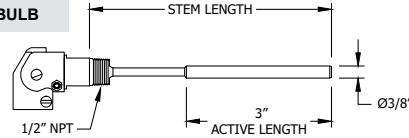
- 87 = 3/8" x 3" Active, 12" Bendable Extension
- 88 = 3/8" x 3" Active, 18" Bendable Extension
- 8X = 3/8" x 3" Active, Over 18" Bendable Extension (specify stem length)\*

Plain Bulbs:

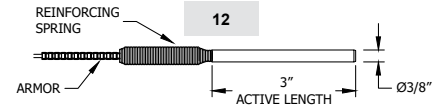
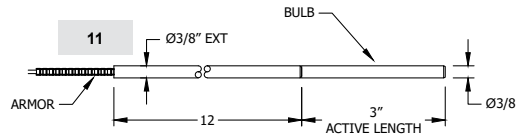
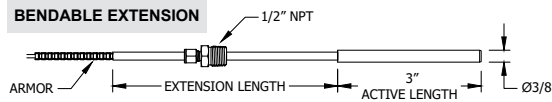
- 11 = Plain Bulb, 3/8" x 3" Active, +12" Rigid Extension
- 12 = Plain Bulb, 3/8" x 3" Active

\*Specify stem length. Example: G45DA-0X-12"-FB  
Note: All bulbs and capillaries are 316SS.

#### ALL ANGLE BULB



#### BENDABLE EXTENSION



L?? = Armored Capillary Length in ft. Lengths up to 99 ft. Omit for "D Case". Example 5ft. = L05.

Note: Stainless steel spring armor is standard protection on all capillary. Capillary over 40 ft. require XSI Spiral Interlock Armor option.

FB

XAW

### TEMPERATURE RANGE

### ACCESSORIES & OPTIONS

Ranges & Minor Divisions

- FB = -320°F to 100°F, 5°
- FE = -120°F to 120°F, 2°
- FG = -40°F to 180°F, 2°
- FH = 0°F to 120°F, 1°
- FJ = 60°F to 120°F, 1°
- FL = 20°F to 240°F, 2°
- FN = 0°F to 300°F, 5°
- F0 = 150°F to 450°F, 5°
- FP = 50°F to 550°F, 5°
- FR = 50°F to 750°F, 5°
- FT = 400°F to 1200°F, 10°
- FX = 0°F to 1000°F, 10°
- CD = -200°C to 100°C, 5°
- CI = 0°C to 120°C, 1°
- CT = 200°C to 650°C, 5°

Dual Scale Ranges & Divisions

- DB = -320°F to 100°F & -200°C to 40°C, 5° & 2°
- DE = -120°F to 120°F & -85°C to 50°C, 2° & 1°
- DG = -40°F to 180°F & -40°C to 80°C, 2° & 2°
- DH = 0°F to 120°F & -15°C to 50°C, 1° & 1°
- DJ = 60°F to 120°F & -15°C to 50°C, 1° & 1/2°
- DL = 20°F to 240°F & 5°C to 110°C, 2° & 1°
- DN = 0°F to 300°F & -10°C to 150°C, 5° & 1°
- D1 = 150°F to 450°F & 70°C to 230°C, 5° & 1°
- DP = 50°F to 550°F & 10°C to 290°C, 5° & 5°
- DR = 50°F to 750°F & 0°C to 400°C, 5° & 5°
- DT = 400°F to 1200°F & 200°C to 650°C, 10° & 5°

- XAW = Acrylic Window\*
- XSG = Safety Glass Window\*
- XFR = Flush Mounting Ring for "E" Case
- XBF = 1/2" NPT Compression Fitting for #11 Bulb (Attaches to 12" Extension, not Bulb)
- XCF = 1/2" NPT Compression Fitting (Attaches to Spiral Interlock Armor. For #12 Bulb Only. Requires XSI Option.)
- XSI = Spiral Interlock Armor (Required over 40 Feet)
- XVD = Vibration Dampening Feature (Dampens Vibration - Available in all Rear Connected Models)
- XTW = Thermowell (See Thermowell Table Below for Order Codes)

\*Not Available for Aluminum Front Flange Hinge Ring (F) Case, F Case is Glass Only

### STANDARD THERMOWELLS FOR 3/8" DIAMETER ELEMENTS

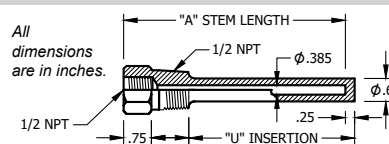
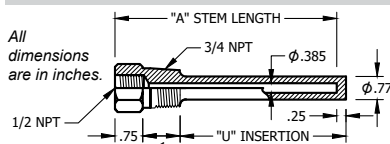
P	A	U	304SS	316SS
3/4" NPT	4"	2 1/2"	ST4304-SB3	ST4316-SB3
	6"	4 1/2"	ST6304-SB3	ST6316-SB3
	9"	7 1/2"	ST9304-SB3	ST9316-SB3
	12"	10 1/2"	ST12304-SB3	ST12316-SB3
	15"	13 1/2"	ST15304-SB3	ST15316-SB3
	18"	16 1/2"	ST18304-SB3	ST18316-SB3
1/2" NPT	4"	2 1/2"	ST4304-HSB3	ST4316-HSB3
	6"	4 1/2"	ST6304-HSB3	ST6316-HSB3
	9"	7 1/2"	ST9304-HSB3	ST9316-HSB3
	12"	10 1/2"	ST12304-HSB3	ST12316-HSB3
	15"	13 1/2"	ST15304-HSB3	ST15316-HSB3
	18"	16 1/2"	ST18304-HSB3	ST18316-HSB3
24"	22 1/2"	ST24304-HSB3	ST24316-HSB3	

### LAGGING THERMOWELLS FOR 3/8" DIAMETER ELEMENTS

P	A	U	T	304SS	316SS
3/4" NPT	6"	2 1/2"	2"	LG6304-SB3	LG6316-SB3
	9"	4 1/2"	3"	LG9304-SB3	LG9316-SB3
	12"	7 1/2"	3"	LG12304-SB3	LG12316-SB3
	15"	10 1/2"	3"	LG15304-SB3	LG15316-SB3
	18"	13 1/2"	3"	LG18304-SB3	LG18316-SB3
	24"	19 1/2"	3"	LG24304-SB3	LG24316-SB3

All dimensions are in inches.

### Standard Thermowells



### Lagging Thermowells

