

Specifications – Bimetal Dial Thermometers

Dial Sizes: 1 1/8", 1 3/4", 2 3/8", 3", 4", 5"

Stem Length: Between 2" and 80"

Stem Diameters: 1/4" (standard),
also available 5/16", 3/8".

Heads, bezels, mounting bushing, stems:

All Models 300 series SS

Operating Conditions: The temperature of the head should not be allowed to exceed 200° F (150° F if silicone filled). Stems should not be exposed to continuous temperatures exceeding 50% over-range, or 800° F.

Hermetic seal: All 3", 4", and 5" models (except DM4) are hermetically sealed per ASME B40.3.

Pointed Stems: Optional on all models. Excellent for probing asphalt, compost, soil, frozen foods or other semi-solid materials.

Dials: Anodized aluminum. Black marks and numbers with satin matte finish background.

Crystals: Optically clear strong glass.

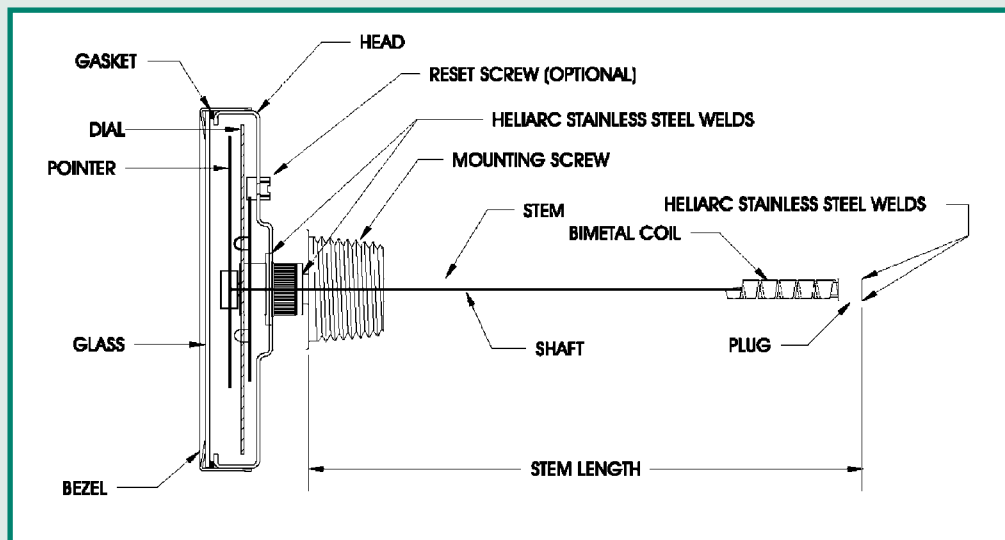
Optional: Unbreakable clear plastic: all models (Not recommended for ranges over 500° F).

Optional: "Shatterproof" tempered glass (3", 4", and 5" models).

Accuracy: All Models are guaranteed accurate to within plus or minus 1% of the full scale (Grade A per ASME B40.3). Temperature readings are stabilized within 40 seconds.

Immersion: For correct temperature measurement, the stem of all Models in all ranges must be immersed 2 inches in liquid, and 4 inches in gas except for 0 to 100° F, 25 to 125° F, and 0 to 50° C which require 3 1/2 inches in liquid and 5 inches in gas.

Mounting Connections: 1/2" NPT (std. on 3", 4", 5" models), 1/8" NPT, 1/4" NPT, 3/8" NPT, 3/4" NPT, 3/8"-24" NF, Plain or Reset Bushing, 1/2" NPT Union, 1/2" BSPT, BSPP Adapters.



Thermowells

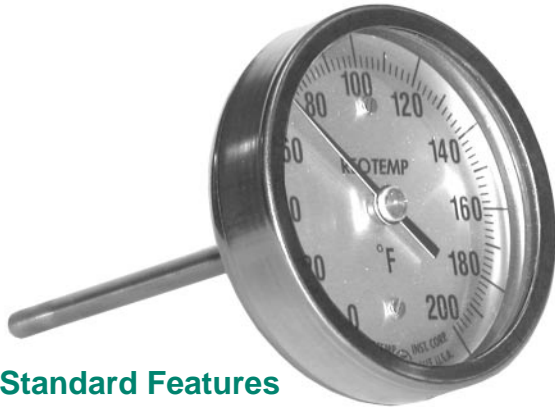
Thermowells should be used whenever the stem or bulb would be exposed to pressure, corrosion, or shear forces. Thermowells also make it possible to remove the thermometer without losing pressure or contents. (See pages 14-15 for more details)

O.E.M. Applications

If you are an Original Equipment Manufacturer and plan to incorporate the REOTEMP Thermometer in your finished product for resale, special ranges or special dials can be made to suit your particular requirements. Such specials can bear your own company name and/or trademark on the dial. The quality, appearance, and performance of a REOTEMP Thermometer will complement and enhance your equipment.

Bimetal Thermometers Industrial 3", 4", 5" Dial

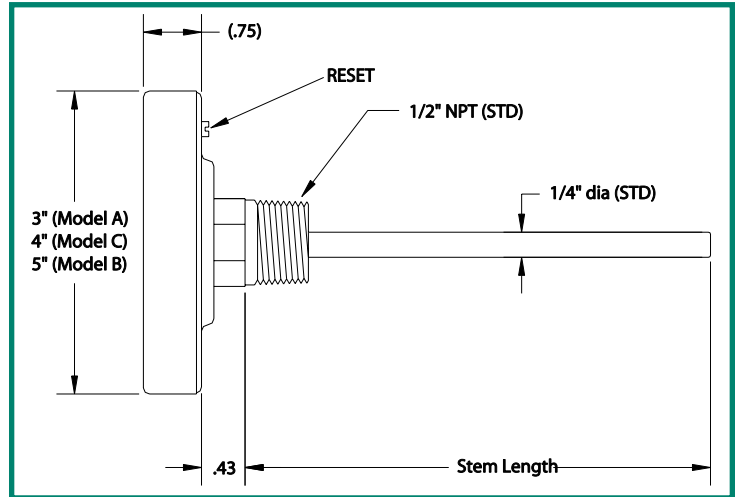
Back Connected (Angle Form)



Standard Features

- All Stainless Steel Construction
- Hermetically Sealed (ASME B40.3)
- Accurate to 1% of Full Scale
- Standard External Reset
- Silicone Fillable for Vibration

REOTEMP Angle Form thermometers are ideal for local, eye-level temperature readings in most process applications.



How to Order

AA

060

1

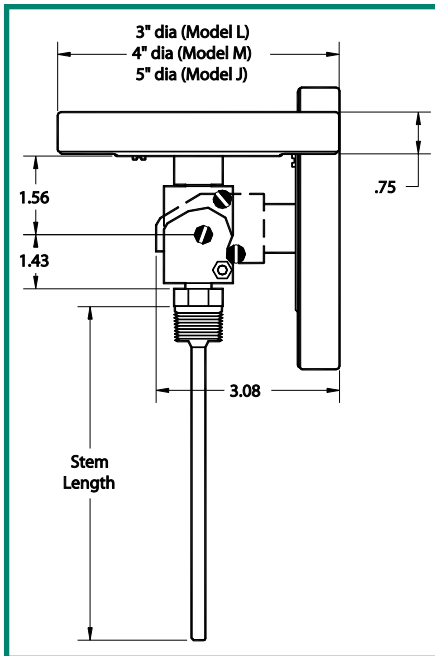
F43

SF

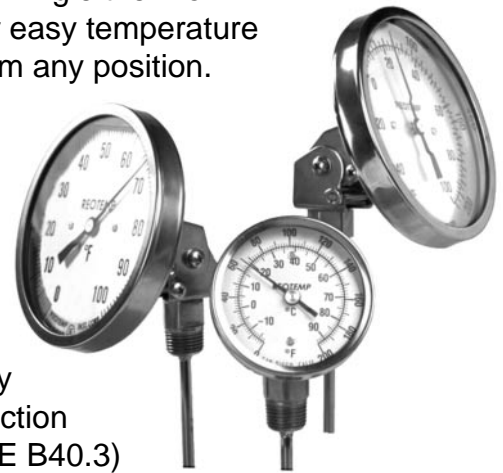
Models	Stem Length	Connection	Temperature Ranges See pg.13 for full list.	Options
Standard Models		Standard Threaded	Fahrenheit Ranges	PS = Pointed Stem
AA = Model A (3" dial, reset)	025 = 2.5"	1 = 1/2" NPT (std.)	F23 -40 TO 160°F	SF = Silicone Fill (max temp 550°F)
	040 = 4"	4 = 1/4" NPT	F55* 25 TO 125°F	SS = 316 SS Stem
BB = Model B (5" dial, reset)	060 = 6"	5 = 3/4" NPT adapter	F43 0 TO 200°F	S3 = 3/8" dia. Stem
	090 = 9"	X = Plain Hex Bushing (no threads)	F47 0 TO 250°F	PC = Acrylic Window
CC = Model C (4" dial, reset)	120 = 12"	B = 1/2" BSPT	F63 50 TO 300°F	PY = Polycarbonate Window
			F67 50 TO 500°F	TG = Tempered Glass Window
			F69 50 TO 550°F	MM = Max/Min Pointer
			F81 150 TO 750°F	CC = Certificate of Conformance
			F85 200 TO 1000°F	C1 = 1 Point Calibration Cert.
			Celsius Ranges	C3 = 3 Point Calibration Cert.
Non-Reset Models	150 = 15"		C23 -40 TO 70°C	
RR = Model R (3" dial, no reset)	180 = 18"	Sanitary	C55* 0 TO 50°C	
			C43 0 TO 100°C	
SS = Model S (5" dial, no reset)	240 = 24"		C47 -20 TO 120°C	
	300 = 30"		C59 0 TO 150°C	
	360 = 36"		C67 0 TO 250°C	
			C69 0 TO 300°C	
CN = Model CN (4" dial, no reset)			C81 50 TO 400°C	
			C85 100 TO 500°C	
			Dual F/C Ranges	
			D23 -40 TO 160°F & -40 TO 70°C	
			D55* 25 TO 125°F & -5 TO 50°C	
			D43 0 TO 200°F & -10 TO 90°C	
			D47 0 TO 250°F & -20 TO 120°C	
			D63 50 TO 300°F & 10 TO 150°C	
			D67 50 TO 500°F & 10 TO 260°C	
			D69 50 TO 550°F & 10 TO 290°C	
			D81 150 TO 750°F & 70 TO 400°C	
			D85 200 TO 1000°F & 100 TO 500°C	
			*- Not available in 2.5" stem.	
	-Intermediate lengths available up to 80"			
	-Specify length in inches + tenths	For more information on Sanitary Thermometers see page 12		For Thermowells see pg. 14

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REOTEMP All-Angle thermometer allows for easy temperature monitoring from any position.



Standard Features

- Complete 180° Adjustability
- All Stainless Steel Construction
- Hermetically Sealed (ASME B40.3)
- Accurate to 1% of Full Scale
- Standard External Reset
- Silicone Fillable for Vibration
- 360° Case Rotation

How to Order

LL

060

1

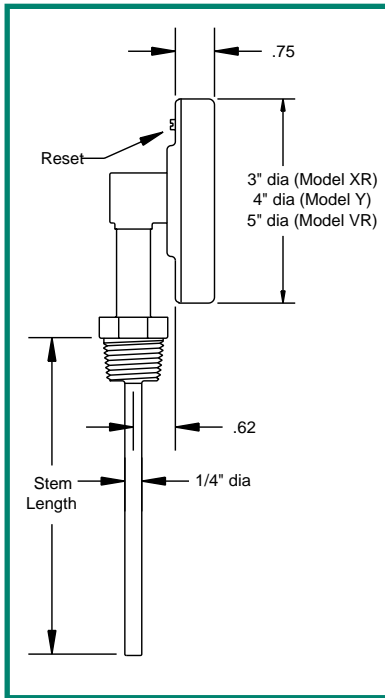
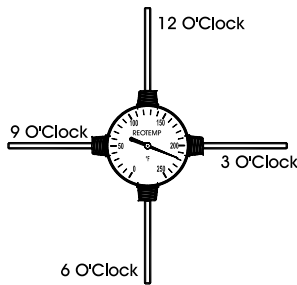
F43

SF

Models	Stem Length	Connection	Temperature Ranges <small>See pg.13 for full list.</small>	Options
Standard Models		Standard Threaded	Fahrenheit Ranges	PS = Pointed Stem
LL = Model L (3" dial, reset)	025 = 2.5"	1 = 1/2" NPT (std.)	F23 -40 TO 160°F	SF = Silicone Fill (max temp 550°F)
	040 = 4"	5 = 3/4" NPT adapter	F55* 25 TO 125°F	SS = 316 SS Stem
MM = Model M (4" dial, reset)	060 = 6"	U = 1/2" NPT Union	F43 0 TO 200°F	S3 = 3/8" dia. Stem
	090 = 9"		F47 0 TO 250°F	PC = Acrylic Window
JJ = Model J (5" dial, reset)	120 = 12"		F63 50 TO 300°F	PY = Polycarbonate Window
	150 = 15"		F67 50 TO 500°F	TG = Tempered Glass Window
	180 = 18"		F69 50 TO 550°F	MM = Max/Min Pointer
	240 = 24"		F81 150 TO 750°F	CC = Certificate of Conformance
	300 = 30"		F85 200 TO 1000°F	C1 = 1 Point Calibration Cert.
	360 = 36"		Celsius Ranges	C3 = 3 Point Calibration Cert.
			C23 -40 TO 70°C	
			C55* 0 TO 50°C	
			C43 0 TO 100°C	
			C47 -20 TO 120°C	
			C59 10 TO 150°C	
			C67 10 TO 260°C	
			C69 10 TO 290°C	
			C81 50 TO 400°C	
			C85 100 TO 500°C	
			Dual F/C Ranges	
			D23 -40 TO 160°F & -40 TO 70°C	
			D55* 25 TO 125°F & -5 TO 50°C	
			D43 0 TO 200°F & -10 TO 90°C	
			D47 0 TO 250°F & -20 TO 120°C	
			D63 50 TO 300°F & 10 TO 150°C	
			D67 50 TO 500°F & 10 TO 260°C	
			D69 50 TO 550°F & 10 TO 290°C	
			D81 150 TO 750°F & 70 TO 400°C	
			D85 200 TO 1000°F & 100 TO 500°C	
			*- Not available in 2.5" stem.	
		Sanitary		
		For more information on Sanitary Thermometers see page 12		
	-Intermediate lengths available up to 80"			
	-Specify length in inches + tenths			For Thermowells see pg. 14

Bimetal Thermometers Industrial 3", 4", 5" Dial

Bottom Connected
(Straight Form)



REOTEMP Straight Form thermometers are ideal for side and elevated installations on tops or sides of tanks or pipes.

Standard Features

- Bottom, Top, Right or Left Side Mounting
- All Stainless Steel Construction
- Hermetically Sealed (ASME B40.3)
- Accurate to 1% of Full Scale
- Standard External Reset
- Silicone Fillable for Vibration

How to Order

XR

060

1

F43

SF

Models	Stem Length	Connection	Temperature Ranges See pg.13 for full list.	Options
Standard Models				
XR = Model XR (3" dial, reset)	025 = 2.5"	1 = 1/2" NPT (std.)	F23 -40 TO 160°F	PS = Pointed Stem
	040 = 4"	4 = 1/4" NPT	F55* 25 TO 125°F	SF = Silicone Fill (max temp 550°F)
YY = Model Y (4" dial, reset)	060 = 6"	5 = 3/4" NPT adapter	F43 0 TO 200°F	SS = 316 SS Stem
	090 = 9"		F47 0 TO 250°F	S3 = 3/8" dia. Stem
VR = Model VR (5" dial, reset)	120 = 12"		F63 50 TO 300°F	PC = Acrylic Window
			F67 50 TO 500°F	PY = Polycarbonate Window
			F69 50 TO 550°F	TG = Tempered Glass Window
			F81 150 TO 750°F	MM = Max/Min Pointer
			F85 200 TO 1000°F	99 = 9 O'Clock Stem (left side)
Non-Reset Models				
XX = Model X (3" dial, no reset)	150 = 15"		C23 -40 TO 70°C	33 = 3 O'Clock Stem (right side)
	180 = 18"		C55* 0 TO 50°C	12 = 12 O'Clock Stem (top mount)
YN = Model YN (4" dial, no reset)	240 = 24"		C43 0 TO 100°C	
	300 = 30"		C47 -20 TO 120°C	
VV = Model V (5" dial, no reset)	360 = 36"		C59 10 TO 150°C	
			C67 10 TO 260°C	
			C69 10 TO 290°C	
			C81 50 TO 400°C	
			C85 100 TO 500°C	
			Dual F/C Ranges	
			D23 -40 TO 160°F & -40 TO 70°C	
			D55* 25 TO 125°F & -5 TO 50°C	
			D43 0 TO 200°F & -10 TO 90°C	
			D47 0 TO 250°F & -20 TO 120°C	
			D63 50 TO 300°F & 10 TO 150°C	
			D67 50 TO 500°F & 10 TO 260°C	
			D69 50 TO 550°F & 10 TO 290°C	
			D81 150 TO 750°F & 70 TO 400°C	
			D85 200 TO 1000°F & 100 TO 500°C	
			* - Not available in 2.5" stem.	
		For more information on Sanitary Thermometers see page 12		For Thermowells see pg. 14

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Bimetal Temperature Range Master List - (Other ranges available on application. Y = available)

Code	F Ranges	Div	Q	G	H	3,4,5	Code	C Ranges	Div	Q	G	H	3,4,5	Code	Dual Ranges	Q	G	H	3,4,5
F03	-100/100F	2		Y	Y	Y	C03	-70/70C					Y	D03	-100/100F & -70/40C		Y	Y	Y
F07	-80/120F	2			Y	Y	C07	-50/50C	1		Y	Y	Y	D07					
F11	-70/150F	2				Y	C15	-50/100C	2		Y	Y	Y	D15	-50/210F & -50/100C				Y
F21	-40/120F+	2				Y	C23	-40/70C	1	Y	Y	Y	Y	D23	-40/160F & -40/70C		Y	Y	Y
F23	-40/160F	2	Y	Y	Y	Y		-50/200C	2				Y						
F19	-50/300F	2		Y	Y	Y	C19	-40/160C	2				Y						
F31	-20/120F+	2		Y		Y	C31	-20/40C*	1				Y						
F35	0/100F*	1				Y	C55	0/50C*	1/2	Y	Y	Y	Y	D55	25/125F & -5/50C		Y	Y	Y
F55	25/125F*	1	Y	Y	Y	Y	C37	0/60C*					Y	D37	0/140F & -15/60C+		Y	Y	
F37	0/140F+	2				Y								D39	0/150F & -20/70C+				Y
F39	0/150F+	1			Y	Y	C43	0/100C	1	Y	Y	Y	Y	D43	0/200F & -10/90C	Y	Y	Y	Y
F43	0/200F	2	Y	Y	Y	Y													
F45	0/220F	2		Y	Y	Y	C47	-20/120C	2		Y	Y	Y	D47	0/250F & -20/120C		Y	Y	Y
F47	0/250F	2	Y	Y	Y	Y	C53	-10/110C	1	Y	Y	Y	Y	D53	20/240F & -10/115C		Y	Y	Y
F53	20/240F	2		Y	Y	Y	C59	0/150C	1	Y	Y	Y	Y	D63	50/300F & 10/150C		Y	Y	Y
F63	50/300F	2	Y	Y	Y	Y	C65	0/200C	2	Y	Y	Y	Y	D65	50/400F & 10/200C				Y
F65	50/400F	5				Y	C67	0/250C	2				Y	D67	50/500F & 10/260C	Y	Y	Y	Y
F67	50/500F	5	Y	Y	Y	Y	C69	0/300C	2	Y	Y	Y	Y	D69	50/550F & 10/290C				Y
F69	50/550F	5		Y	Y	Y	C73	0/400C	5		Y	Y	Y						
F79	100/800F	10		Y	Y	Y	C81	50/400C	5	Y	Y	Y	Y	D81	150/750F & 70/400C				
F81	150/750F	10	Y	Y	Y	Y	C85	100/500C	5	Y	Y	Y	Y	D85	200/1000F & 100/500C	Y	Y	Y	Y
F85	200/1000F	10	Y	Y	Y	Y													

* Min. 4" stem with these ranges.

+ Min. 4" stem, Bottom & Adjustable Angle models.

Bimetal Thermometers Temperature Ranges

Accessories

AS-86	Adapter Kit: permits installation of bimetal thermometer in existing mercury-in glass-industrial thermometer thermowell.
HT	Heat Transfer Compound (2 oz, 1 lb containers)
D3	Duct Flange (1/2" NPT)
CH	T-27 spring handle
CP	Pan Clip

Calibration

CC	Certificate of Conformance
C1	1 Point Calibration Certificate
C3	3 Point Calibration Certificate

Options

Code	Description	Model
M M	Minimum or Maximum resettable pointer (one hand)	3", 5"
TG	Tempered Glass Lens	3", 4", 5"
PC	Plastic Lens (Acrylic)	All
PY	Polycarbonate Lens	3", 4", 5"
SF	Silicone Filled	3", 4", 5"
SD	Silicone Filled, food grade	3", 4", 5"
GF	Glycerine Filled (200°F max.)	3", 4", 5"
PS	Pointed Stem	All
3H	316SS Head and Bezel	3", 4", 5"
SS	316SS Stem	All
F5	5/16" diameter stem	3", 4", 5"
S3	3/8" diameter stem	3", 4", 5"
F3	3/8" diameter aluminum sleeve	3", 4", 5"
TF	Teflon Coating (stem only)	All
MB	External Mounting Brackets	G, H
TS	Stainless Steel Tags	All
TP	Paper Tags	All
NL	No Logo Dial	All
BQ	BBQ Dial	3"

Also available on request Custom dials, special ranges, special configurations.



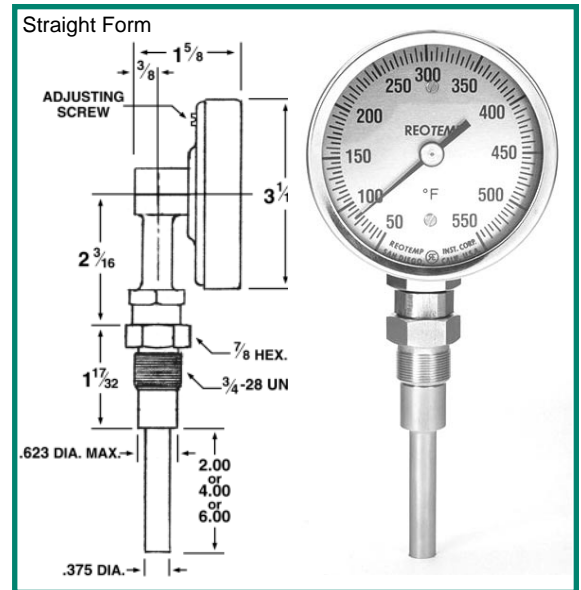
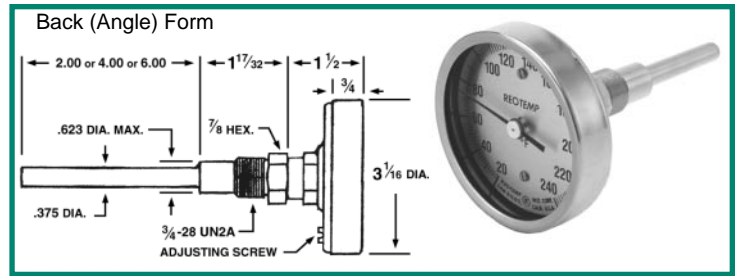
Heavy-Duty
"Navy" Type

Bimetal Thermometers Heavy-Duty Navy Type



Standard Features

- 3" Dial - Bimetal Actuation
- Heavy Duty - Vibration and Shock Resistant
- Stainless Steel - Sealed Construction
- Plastic Crystal
- External Reset is Standard
- 1% Accuracy
- Fits in 5" Scale "Submarine" Thermometer Well
- 3/4" - 28 UN2A Union Connection - (to be used in thermowell)



How to Order

1. Model
2. Range

Models	Ranges
Back Angle Form	Fahrenheit Ranges
AN2= 2"	F21 -40 TO 120°F in 2° divs.*
AN4= 4"	F25 -40 TO 180°F in 2° divs.
AN6= 6"	F43 0 TO 200°F in 2° divs.
	F53 20 TO 240°F in 2° divs.
Straight Form	F63 50 TO 300°F in 2° divs.
	F65 50 TO 400°F in 5° divs.
	F69 50 TO 550°F in 5° divs.
	F73 50 TO 750°F in 10° divs.
	Celsius Ranges
	C07 -50 TO 50°C in 1° divs.*
	C53 -10 TO 110°C in 1° divs.
	C59 0 TO 150°C in 2° divs.
	C65 0 TO 200°C in 2° divs.
	C69 0 TO 300°C in 5° divs.

*.4" Minimum stem length (on straight, left, or right side forms only)

Thermometer Wells

Well Class	Thermometer Stem Length	Well (overall)	Model No.		
			Brass	304 SS	316 SS
Class A (3/4" NPT)	2"	3 1/4"	STN2B	STN2S	STN2SS
	4"	5 1/4"	STN4B	STN4S	STN4SS
	6"	7 1/4"	STN6B	STN6S	STN6SS
Class W (Socket Weld)	2"	3 5/16"			SWN2SS
	4"	5 5/16"			SWN4SS
	6"	7 5/16"			SWN6SS

A & W Wells



Bimetal Thermometers Silicone-Filled Thermometers



REOTEMP Silicone-filled thermometers are offered for severe industrial applications, where vibration is a problem. Silicone dampening prolongs instrument life by preventing wear and fatigue in the instrument's internal parts. The silicone also improves readability by reducing pointer flutter, and promotes faster temperature response. Any REOTEMP 3", 4" or 5" dial bimetal thermometer (except Model DM4) can be silicone filled, in any stem length, and any temperature range up to 550°F. (Silicone filling with ranges over 550°F not recommended.) All silicone-filled thermometers come with a durable polycarbonate crystal.



How to Order

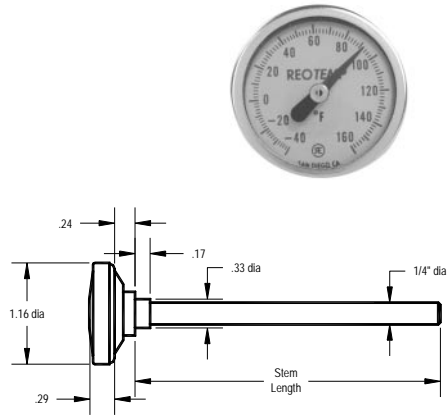
Specify option "SF" at the end of any 3", 4" or 5" dial bimetal thermometer. (e.g., Model AA-040-1-F47-SF). See pg. 4-6

Bimetal Thermometers

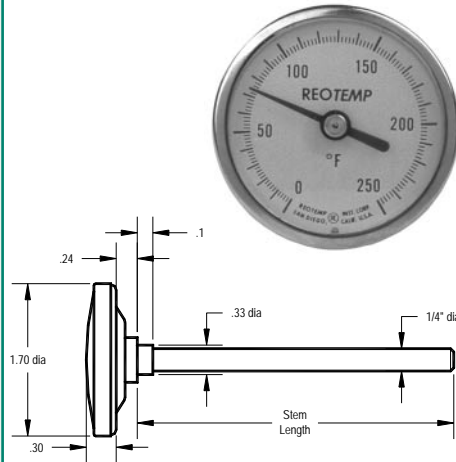
OEM Dial Bimetal Thermometers

REOTEMP OEM Thermometers (Models Q, G, and H) are the perfect choice for equipment with limited space and requiring a rugged, dependable and economical temperature sensor. Available with a wide variety of mounting threads.

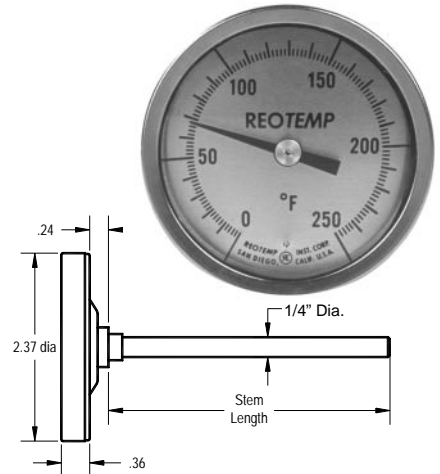
Model Q - 1 5/32" Dial



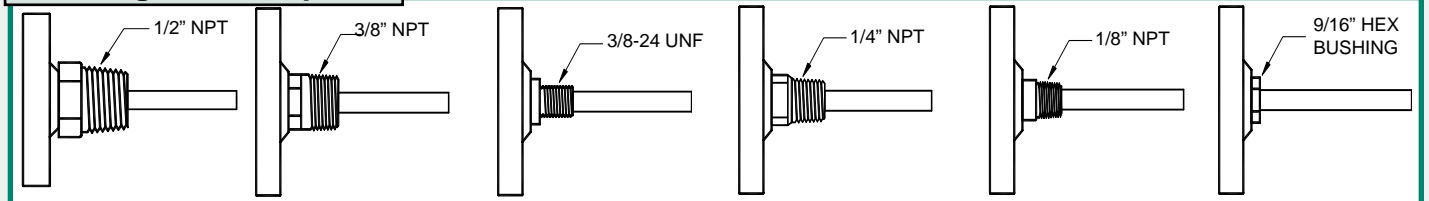
Model G - 1 11/16" Dial



Model H - 2 3/8" Dial



Mounting Thread Options



How to Order

QQ — **025** — **2** — **F43** — **PS**

Models	Stem Length	Connection	Temperature Ranges <small>(See pg. 13 for full list)</small>	Options
OEM Models			Fahrenheit Ranges	
QQ = Model Q (1-1/4" dial)	025 = 2.5"	2 = Plain Bushing (std.)	F23 -40 TO 160°F	PS = Pointed Stem
	040 = 4"	1 = 1/2" NPT	F55* 25 TO 125°F	SS = 316 SS Stem
GG = Model G (1-3/4" dial)	060 = 6"	3 = 3/8"-24 NF (straight threaded)	F43 0 TO 200°F	PC = Plastic Window
	090 = 9"	4 = 1/4" NPT	F47 0 TO 250°F	PB = Plain Bushing <small>(non-reset, for lab and test models only)</small>
HH = Model H (2-3/8" dial)	120 = 12"	6 = 1/8" NPT	F63 50 TO 300°F	
	150 = 15"	7 = 3/8" NPT	F67 50 TO 500°F	
Lab & Test Models		8 = Hex Reset Bushing	F81 150 TO 750°F	
QP = Model QP (1-1/4" dial) 5" Stem	180 = 18"		F85 200 TO 1000°F	
	240 = 24"		Celsius Ranges	
GL = Model GL (1-3/4" dial) 8" Stem	300 = 30"		C23 -40 TO 70°C	
	360 = 36"		C55** 0 TO 50°C	
	<small>-Intermediate lengths available up to 80"</small>		C43 0 TO 100°C	
	<small>-specify length in inches + tenths</small>		C53 -10 TO 100°C	
			C59 0 TO 150°C	
			C65 0 TO 200°C	
			C69 0 TO 300°C	
			C73 0 TO 400°F	
HL = Model HL (2-3/8" dial) 8" Stem			Dual F/C Ranges	
			D23** -40 TO 160°F & -40 TO 70°C	
			D55** 25 TO 125°F & 0 TO 50°C	
			D43 0 TO 200°F & 0 TO 100°C	
			D47** 0 TO 250°F & -20 TO 120°C	
			D63** 0 TO 300°F & 0 TO 150°C	
			D67 50 TO 500°F & 0 TO 250°C	
			D85 200 TO 1000°F & 100 TO 500°C	
			<small>* - 4" minimum stem length</small>	
			<small>** - Not available in Model Q.</small>	
		<small>*-Other sizes available</small>		

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