

# Bimetal, Industrial Type with External Reset

## 300 SERIES



### APPLICATIONS

- Industrial process
- Petrochemical
- Food & beverage processing
- Commercial
- Wastewater

- Highest quality thermometers available on the market
- Easy to calibrate with 1/16" Allen key
- Corrosion-resistant 304 Stainless Steel case and bezel provide a hermetic seal to prevent lens fogging and moisture damage
- Single °F, single °C, and dual scale options available
- Accuracy:  $\pm 1\%$  full scale, Grade A, ASME B40.3
- 2", 3" and 5" sizes - center back and bottom connections
- 2" Dial Size - 1/4" NPT; 3" & 5" Dial Sizes - 1/2" NPT
- Standard stem lengths 2-1/2" through 42"
- Minimum or maximum indicating pointers are available in 3" and 5" sizes
- Highly sensitive bimetallic helix coil is heat-treated for stress relief, and silicone-coated to minimize pointer vibration and maximize heat transfer and response time
- 360° groove around stem is a visual reference to show minimum immersion point
- Made in the U.S.A.

	SERIES	SPECIFICATIONS
<b>Case &amp; bezel</b>	All 300 Series	304 Stainless Steel; 316 Stainless Steel optional
<b>Lens</b>	All 300 Series	Instrument glass
<b>Pointer</b>	All 300 Series	Aluminum, black finish
<b>Stem diameter</b>	All 300 Series	.250" (6.35 mm)
<b>Accuracy</b>	All 300 Series	$\pm 1\%$ full scale, Grade A, ASME B40.3
<b>Dial</b>	All 300 Series	Anodized Aluminum with large black numbers and graduations
<b>Process connection</b>	2" Dial Size 3" & 5" Dial Size	1/4" NPT 1/2" NPT
<b>Wetted parts</b>	All 300 Series	304 Stainless Steel; 316 Stainless Steel optional
<b>Hermetic seal</b>	All 300 Series	Per ASME B40.3 dustproof and leakproof
<b>Bimetal coil</b>	All 300 Series	Silicone coated helix coil on ranges below 500 °F for vibration dampening, maximum heat transfer and response time
<b>Over temperature limits</b>	All 300 Series	Up to 250 °F 100%; 250 °F to 550 °F 50%; 550 °F to 1,000 °F continuous use up to 800 °F; intermittent use over 800 °F
<b>Recalibrator</b>	All 300 Series	External reset
<b>Adjustable angle form</b>	320 Series	All Stainless Steel brackets with screws that loosen to allow 360° rotation of head and 180° adjustment of stem position



**WARNING:** This product can expose you to chemicals including Chromium (VI) and Nickel, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

Thermowells are recommended for pressure, corrosive fluids and high velocity applications, see pages 46-48.

ORDERING INFORMATION						
DIAL SIZES	20	2" (Back connected only)	30	3"	50	5"
CASE TYPES	300	Bottom connection	310	Back connection	320	Adjustable angle connection**
STEM LENGTHS	025	2-1/2"	120	12"	300	30"
	040	4"	150	15"	360	36"
	060	6"	180	18"	420	42"
	090	9"	240	24"	Available up to 120"	
TEMPERATURE RANGES	-100/100 F/C	-100 °F/°C to 100 °F/°C	0/250 F/C	0 °F/°C to 250 °F/°C	50/500 F/C	50 °F/°C to 500 °F/°C
	-40/160 F/C	-40 °F/°C to 160 °F/°C	20/240 F/C	20 °F/°C to 240 °F/°C	150/750 F/C	150 °F/°C to 750 °F/°C
Dual Scale °F/°C	0/140 F/C	0 °F/°C to 140 °F/°C	25/125 F/C	25 °F/°C to 125 °F/°C†	200/1000 F/C	200 °F/°C to 1,000 °F/°C*
	0/180 F/C	0 °F/°C to 180 °F/°C	50/300 F/C	50 °F/°C to 300 °F/°C		
	0/220 F/C	0 °F/°C to 220 °F/°C	50/400 F/C	50 °F/°C to 400 °F/°C		
Single Scale °F	-100/100 F	-100 °F to 100 °F	0/300 F	0 °F to 300 °F**	50/550 F	50 °F to 550 °F
	-50/120 F	-50 °F to 120 °F	0/500 F	0 °F to 500 °F**	100/800 F	100 °F to 800 °F**
	-40/160 F	-40 °F to 160 °F	20/240 F	20 °F to 240 °F	150/750 F	150 °F to 750 °F
	0/140 F	0 °F to 140 °F	25/125 F	25 °F to 125 °F	200/1000 F	200 °F to 1,000 °F*
	0/180 F	0 °F to 180 °F	50/250 F	50 °F to 250 °F		
	0/200 F	0 °F to 200 °F	50/300 F	50 °F to 300 °F		
	0/220 F	0 °F to 220 °F	50/400 F	50 °F to 400 °F		
	0/250 F	0 °F to 250 °F	50/500 F	50 °F to 500 °F		
Single Scale °C	-75/175 C	-75 °C to 175 °C	0/50 C	0 °C to 50 °C	0/300 C	0 °C to 300 °C
	-70/70 C	-70 °C to 70 °C**	0/60 C	0 °C to 60 °C**	0/400 C	0 °C to 400 °C
	-50/100 C	-50 °C to 100 °C**	0/80 C	0 °C to 80 °C**	0/450 C	0 °C to 450 °C
	-50/50 C	-50 °C to 50 °C	0/100 C	0 °C to 100 °C	100/400 C	100 °C to 400 °C
	-40/70 C	-40 °C to 70 °C	0/150 C	0 °C to 150 °C	100/550 C	100 °C to 550 °C*
	-20/120 C	-20 °C to 120 °C**	0/200 C	0 °C to 200 °C		
	-10/110 C	-10 °C to 110 °C**	0/250 C	0 °C to 250 °C		
Consult factory for additional temperature ranges						
OPTIONS	6	6 mm stem diameter **	HD	Heavy-Duty Stem (0.375" Dia.)**	SG	Safety Glass Lens **
	8	8 mm stem diameter **	LL	Polycarbonate Lens	SL	Silicone Filled (500 °F Max)
	316	316 SS Connection & Stem **	MIP	Min or Max Indicating Pointer***	ST	Stainless Steel Tagging
	AU	1/2" NPT Adjustable Union**	MIP2	Min and Max Indicating Pointers***	TG	Tempered Glass Lens ††
	GD	Glow Dial †	PL	Acrylic Lens		

Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

Note: All 316 Stainless Steel construction (case, bezel, wetted parts) is available. Please consult factory.

\* Thermometers with temperature ranges 200/1000 °F and 100/500 °C are not recommended for continuous use above 800 °F/425 °C. For intermittent use only.

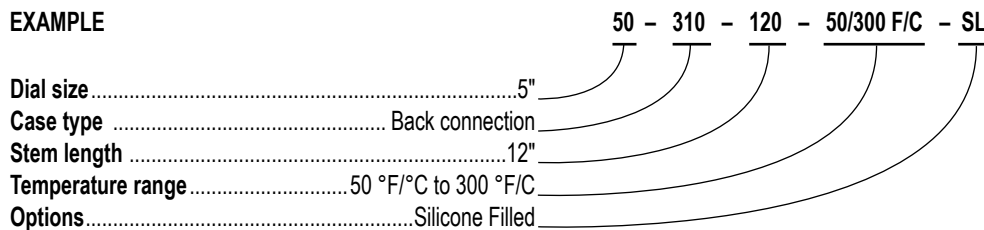
\*\* Available for 3" and 5" dial sizes only.

\*\*\* Available only on 30-310 and 50-310 models.

† Available only on 50-310 and 50-320 model. Includes reflective pointer and two reflective clips.

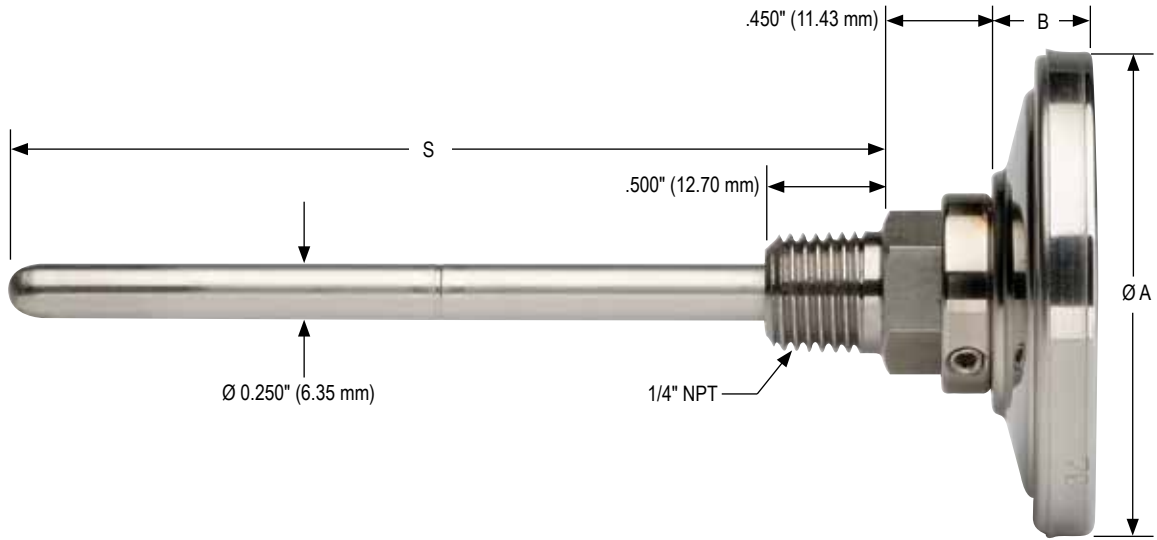
†† Not available with Silicone Filled (SL) option.

**EXAMPLE**



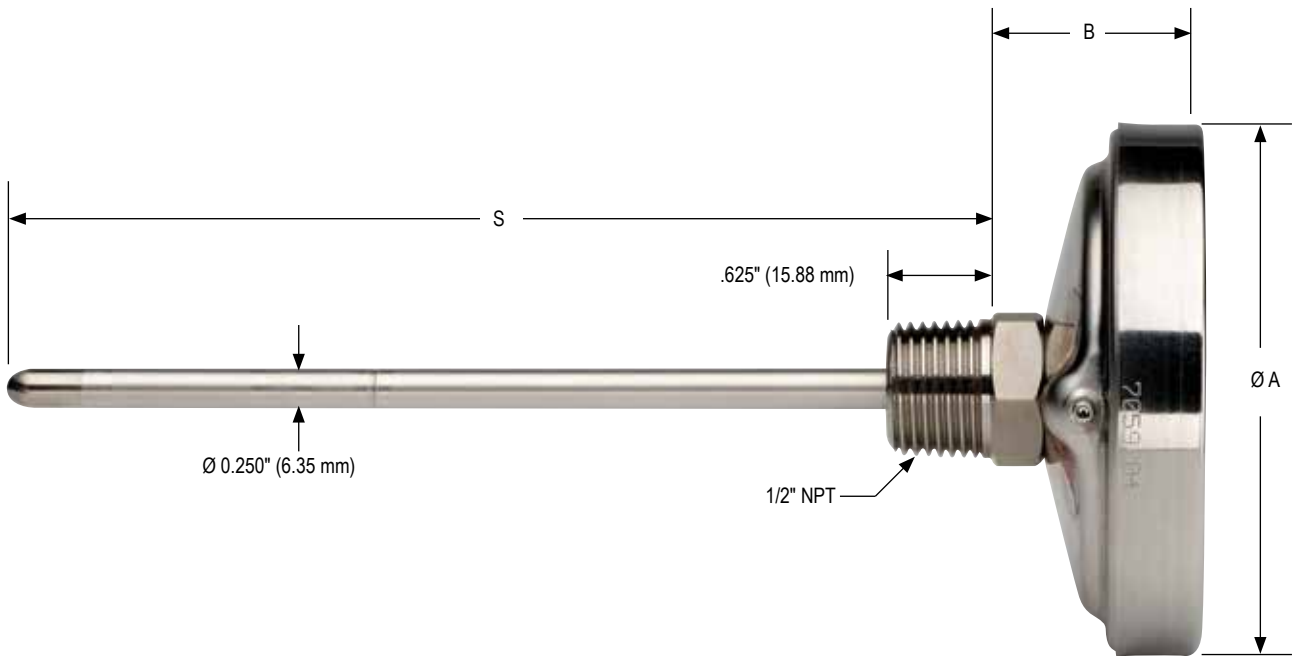
# Dimensions

## 20-310



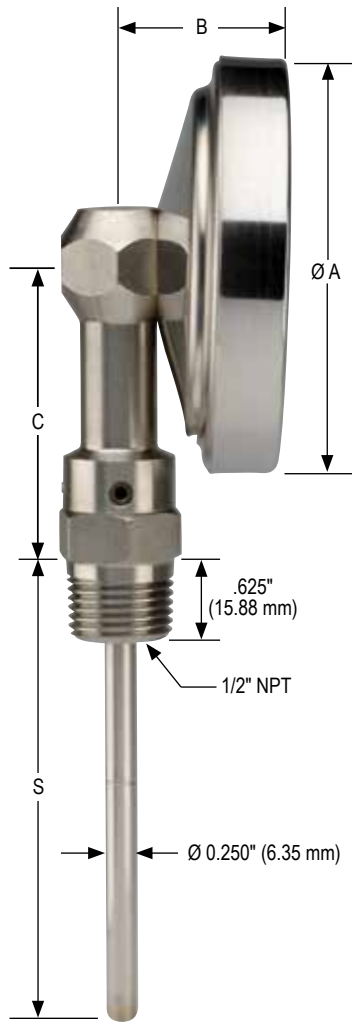
See page 15 for dimension chart.

## 30-310/50-310

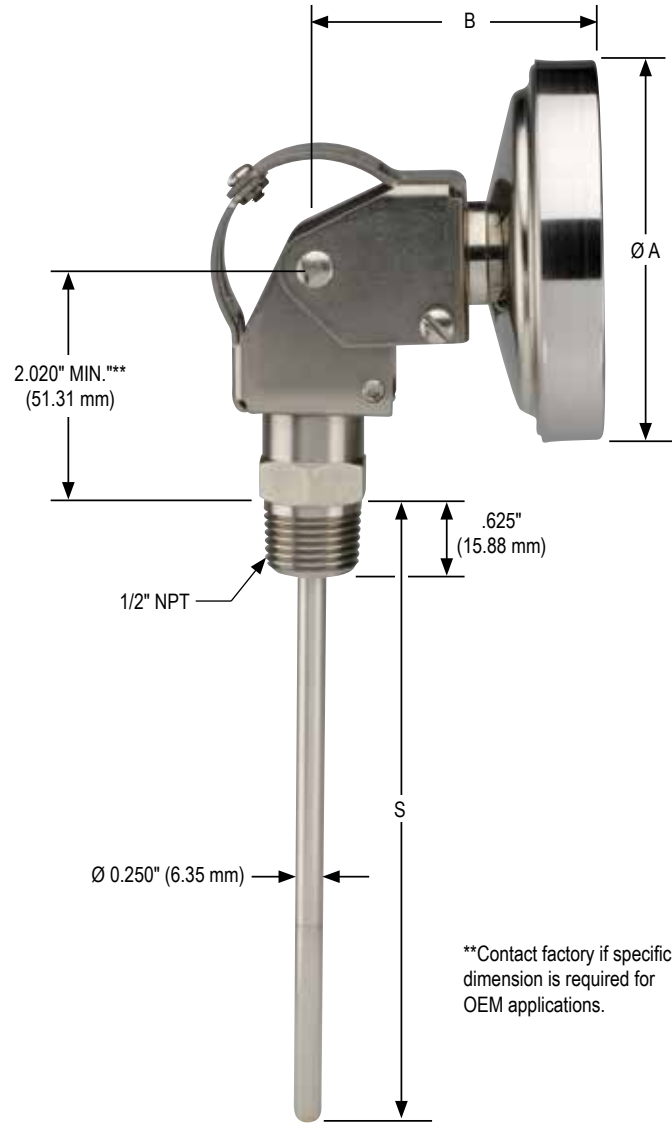


See page 15 for dimension chart.

## 30-300/50-300



## 30-320/50-320



\*\*Contact factory if specific dimension is required for OEM applications.

Series	Ø A	B	C	S (Stem Length)
20-310	2.089" 53.06 mm	.438" 11.13 mm	—	As specified
30-310	3.187" 80.95 mm	1.375" 34.93 mm	—	As specified
50-310	5.040" 128.02 mm	1.718" 43.63 mm	—	As specified
30-300	3.187" 80.95 mm	1.187" 30.15 mm	2.300" (58.42 mm)	As specified
50-300	5.040" 128.02 mm	1.625" 41.28 mm	3.000" (76.20 mm)	As specified
30-320	3.187" 80.95 mm	2.430" 61.72 mm	—	As specified
50-320	5.040" 128.02 mm	2.660" 67.56 mm	—	As specified