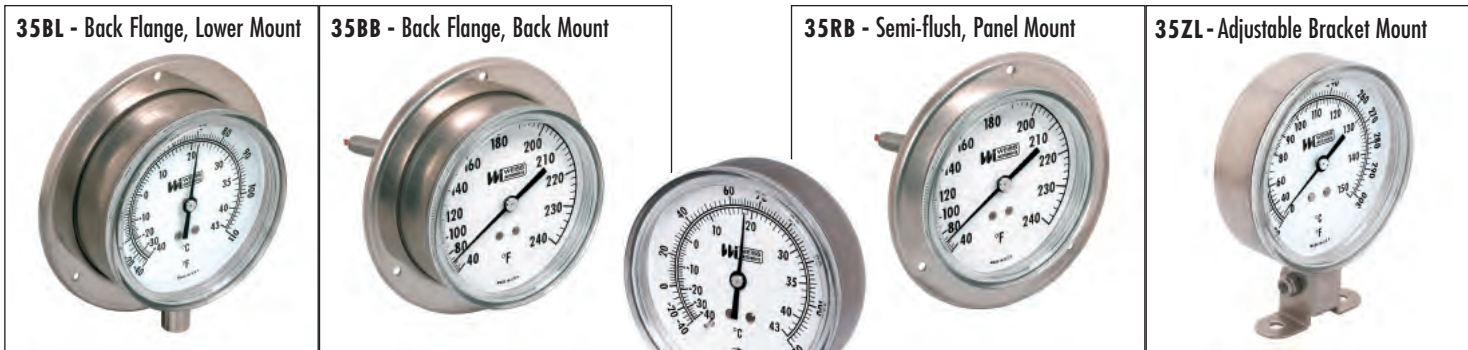


# Series **VTVA & VTR** Direct Mount & Remote Reading



35VA - Vari-angle® Direct Mount

CODE	CATALOG NO.	DESCRIPTION	
I	35	<b>CASE SIZE</b> 3 1/2" Case	
	45	4 1/2" Case	
II	V	Vari-angle® Direct Mount	
	B	Back Flange, Surface Mount	
	R	Semi-flush, Panel Mount	
	Z	Adjustable Bracket, Remote Mount	
III	A	<b>CASE CONNECTION</b> Adjustable	
	B	Back Connection	
	L	Lower Connection	
IV	3	<b>CASE WINDOW</b> Snap in Lexan with "O" Ring	
V	0	<b>THERMAL SYSTEM</b> Union Copper (Vari-angle only)	
	2	Plain Copper	
	3	Plain 316 S.S.	
	5	Union Copper	
	7	Union 316 S.S.	
	8	Union 316 S.S.	
	9	Union 316 S.S.	
			<b>Bulb Type</b> <b>Bulb Material</b> <b>Capillary Material</b> <b>Capillary Protection</b>
		*At bulb end 3 1/2" long. All systems have S.S. Spring capillary protection at indicating head. No. 5-7 system include S.S. spring at bulb end - S.S. jam nut standard on No. 8-9 system.	
VI	1	<b>BULB SELECTION</b> Thermal System No. 5 Thru 9 (Union) Dia.      Length	
	2	Thermal System No. 2 & 3 (Plain) Dia.      Length	
	3	Max. System Len.	
	4		
	5		
	X	1/8" x 180" Averaging Bulb	
	6	N.A.      N.A.      3/8      2.5	

## SPECIFICATIONS

**CASE & RING** - drawn stainless steel case with snap-in "O" ring gasketed clear lexan window.

**CASE STYLES** - five case styles are available (as shown) to accommodate direct mount, surface or panel mounting.

**DIAL** - white coated aluminum with black markings.

**POINTER** - slotted adjustable type.

**BOURDON TUBE** - phosphor bronze.

**THERMAL BULB & LINE ASSEMBLY** - copper or 316 stainless steel.

**PROCESS CONN. FITTING** - separable socket, union or air duct flange connections.

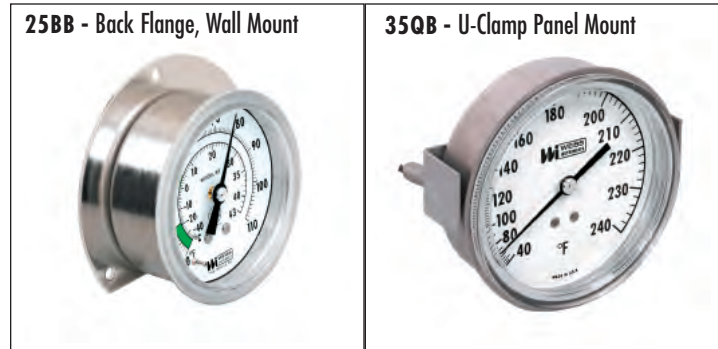
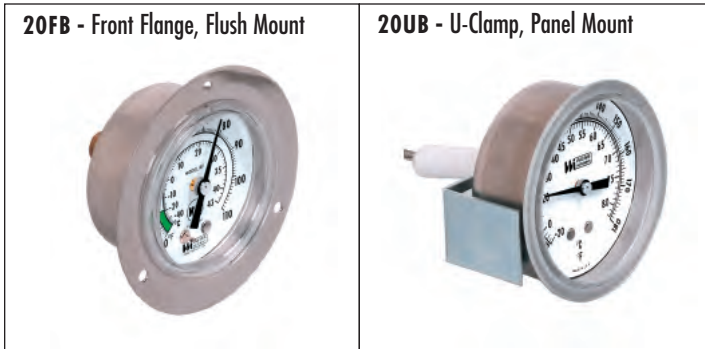
**ACCURACY** - one scale division throughout range.

VII		<b>PROCESS CONNECTION FITTING</b>
	1	Union Connection 1/2" NPT
	2	Union Connection 3/4" NPT
	3	Separable Socket 1/2" NPT
	4	Separable Socket 3/4" NPT
	5	Separable Socket 1/2" NPT with 2" Lag Extension (No.3 Bulb only)
	6	Separable Socket 3/4" NPT with 2" Lag Extension (No.3 Bulb only)
	7	Air Duct Flange, Union Conn., Aluminum only
	9	Plain bulb, no fitting
VIII		<b>PROCESS CONNECTION MATERIAL</b>
	1	Brass
	2	304 Stainless Steel
	3	316 Stainless Steel
	5	Aluminum (Air Duct Flange only)
	0	None - Plain Bulb
IX	See Example Below	<b>SYSTEM LENGTH SPECIFYING</b>
		9A - Use 2 digits: EX. 05, 10, 99 for length required. 9B - Use FT for feet, use IN for inches

### EXAMPLE FOR OBTAINING COMPLETE CATALOG NUMBER FROM CODES - SERIES VTVA & VTR

CODE I-IV (HEAD ASSY)	CODE V-VIII (THERMAL SYSTEM)	CODE IX A - B (CAPILLARY LENGTH)
<b>4 5 B L 3</b>	<b>5 2 3 1</b>	<b>0 5 F T</b>
<b>RANGE</b>		
<b>40-240 F</b>		

# Series **716** Panel Mounting



CODE	CATALOG NO.	DESCRIPTION				
I	15	<b>CASE SIZE</b> 1-1/2" Case				
	20	2" Case				
	25	2-1/2" Case				
	35	3-1/2" Case				
II	F	<b>CASE TYPE</b> Front Flange Flush Mount, 2, 2-1/2"				
	U	U-Clamp Flush Mount, 1-1/2, 2, 2-1/2"				
	B	Back Flange Surface Mount, 2, 2-1/2"				
	S	Front Flange Semi-Flush Mount, 3-1/2"				
	J	U-Clamp Semi-Flush Mount, 3-1/2"				
	Q	U-Clamp Flush Mount, 3-1/2"				
III	B	<b>CASE CONNECTION</b> Back Connection - Standard				
	L	Lower Connection				
IV	3	<b>CASE FRONT AND WINDOW</b> Molded one-piece Lexan				
	4	Stainless Steel Ring & Glass				
	5	Chrome Plated Brass, Glass				
	8	Crimped Ring, S.S., Plastic or Glass - Waterproof				
	9	Threaded one-piece Lexan				
V	1 2 3 4 5 6 7 8 9	<b>THERMAL SYSTEM</b>				
		<b>Bulb Type</b>	<b>Bulb Material</b>	<b>Capillary Material</b>	<b>Capillary Protection</b>	
		Plain	Copper	Copper	None	
		Plain	Copper	Copper	Cu. Braid	
		Plain	316 S.S.	316 S.S.	None	
		Union	Copper	Copper	None*	
		Union	Copper	Copper	Cu. Braid	
		Union	316 S.S.	Copper	None	
		Union	316 S.S.	Copper	Cu. Braid	
		Union	316 S.S.	316 S.S.	Intlock Armor*	
Union	316 S.S.	316 S.S.	None			
*At bulb end 31/2" long. All systems have S.S. Spring capillary protection at indicating head. No. 5-7 system include S.S. spring at bulb end - S.S. jam nut standard on No. 8-9 system.						
VI	0 1 2 3 4 6 7	<b>BULB SELECTION</b>				
		<b>Thermal System No. 4 Thru 9 (Union)</b>	<b>Thermal System No. 1 - 3 (Plain)</b>	<b>Max. System Len.</b>		
		<b>Dia.</b>	<b>Length</b>	<b>Dia.</b>	<b>Length</b>	
		7/16	1.87"	N.A.	N.A.	10Ft.
		7/16	2.5"	N.A.	N.A.	10Ft.
		7/16	3.4"	3/8	3.4	25Ft.
		7/16	5.4"	3/8	4.9	50Ft.
		7/16	7.4"	3/8	7.9	99Ft.
N.A.	N.A.	3/8	2.5	05Ft.		
N.A.	N.A.	5/16	2.5	10Ft.		
*Bulb lengths are standard for system lengths shown. Longer standard bulbs can be applied to any shorter system length. The bulb length shown is for comparative purposes, relating system length to bulb length. See Bulb Chart on Page 4 for Dim.						

## SPECIFICATIONS

**CASE & RING** - drawn stainless steel case with snap-in "O" ring gasketed clear lexan or glass window.

**DIAL** - white coated aluminum with black markings.

**POINTER** - slotted adjustable type which permits "zero set" calibration.

**BOURDON TUBE** - precision geared brass movement and phosphor bronze tube.

**THERMAL SYSTEMS** - available in nine standard types, with system lengths from 6 inches thru 100 feet. Materials for the case and ring assembly are as shown in the Coding Charts.

**PROCESS CONN. FITTING** - separable socket, union or air duct flange connections.

**ACCURACY** - one scale division throughout range. Built with NSF accuracy and compliance, see our complete listing at [www.nsf.org](http://www.nsf.org).

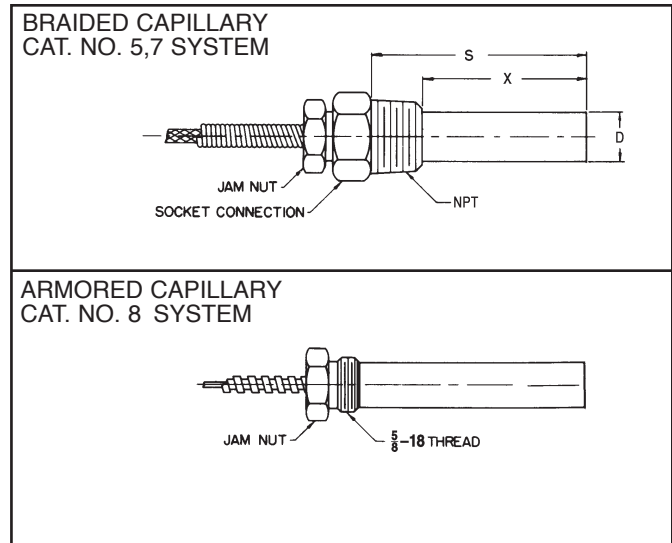
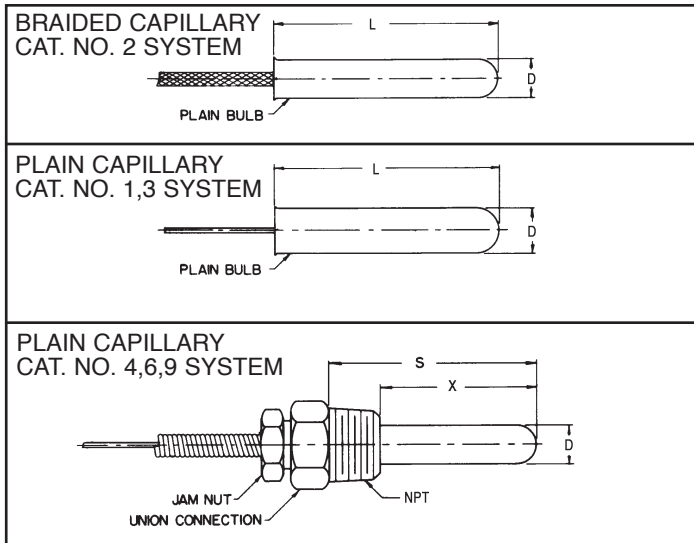
VII	1 2 3 4 7 9	<b>PROCESS CONNECTION FITTING</b>
		Union Connection 1/2" NPT
		Union Connection 3/4" NPT
		Separable Socket 1/2" NPT
		Separable Socket 3/4" NPT
		Air Duct Flange, Union Conn., Aluminum only Plain bulb, no fitting
VIII	1 2 3 5 0	<b>PROCESS CONNECTION MATERIAL</b>
		Brass
		304 Stainless Steel
		316 Stainless Steel
		Aluminum (Air Duct Flange only) None - Plain Bulb
IX A-B	See Example Below	<b>SYSTEM LENGTH SPECIFYING</b>
		9A - Use 2 digits: EX. 05, 10, 99 for length required. 9B - Use FT for feet, use IN for inches
IX C		<b>SYSTEM TIN PLATING (IF REQUIRED)</b>
		9C - Use TIN (No. 1, 4 & 5 Thermal System*) NOTE: All other system plating consult factory. *Should be specified for Foodservice Equipment Thermometers

### EXAMPLE FOR OBTAINING COMPLETE CATALOG NUMBER FROM CODES - SERIES 716

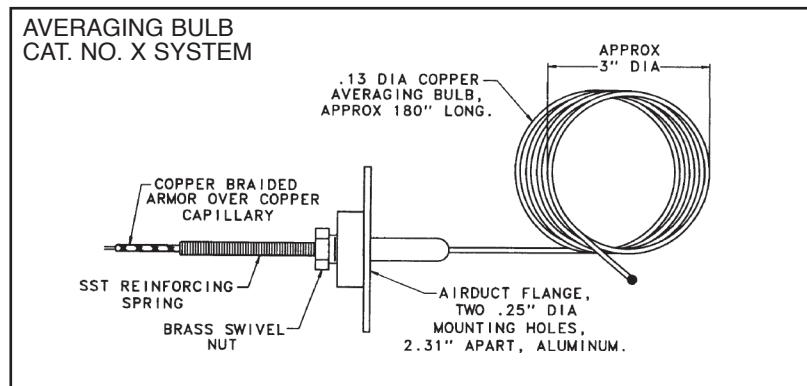
<b>CODE I-IV</b> (HEAD ASSY)	<b>CODE V-VIII</b> (THERMAL SYSTEM)	<b>CODE IX A - B</b> (CAPILLARY LENGTH)
<b>20FB3</b>	<b>1690</b>	<b>05FT</b>
<b>CODE IX C</b>	<b>RANGE</b>	
<b>---</b>	<b>40-0-60 F&amp;C</b>	

# Thermal Systems

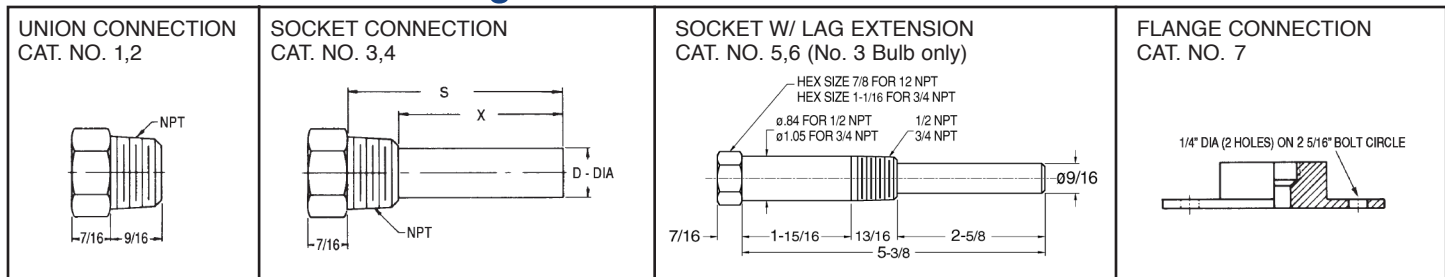
## Code V



## Code VI



## Process Connection Fittings - Code VII



## Bulb Dimensions

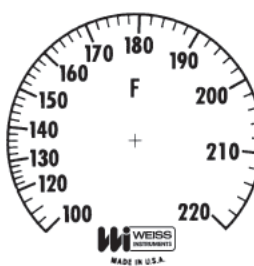
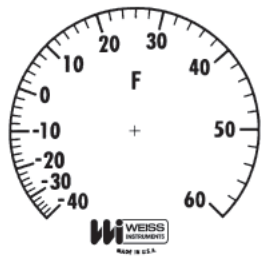
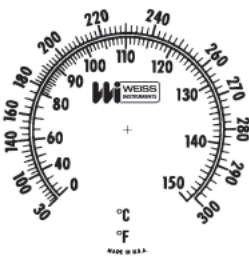
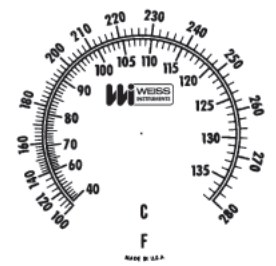
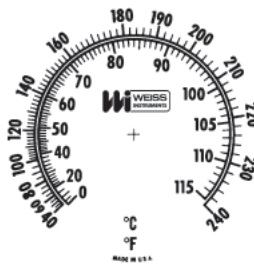
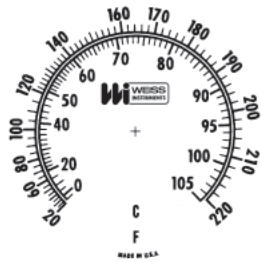
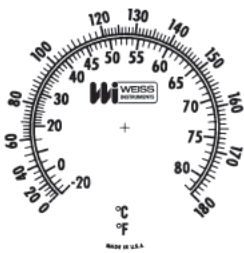
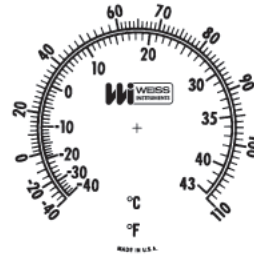
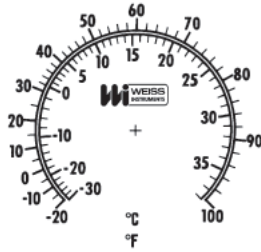
BULB NO. (CODE VI)	PLAIN CONNECTION		UNION CONNECTION			SOCKET CONNECTION			FLANGE CONNECTION	
	L	D	X	S	D	X	S	D	X	D
0	N/A	N/A	1	1 7/8	7/16	N/A	N/A	N/A	N/A	N/A
1	N/A	N/A	1 13/16	2 3/8	7/16	1 15/16	2 1/2	9/16	2 3/16	7/16
2	3 7/16	3/8	2 5/8	3 3/8	7/16	2 5/8	3 3/8	9/16	3	7/16
3	4 7/8	3/8	4 5/8	5 3/8	7/16	4 5/8	5 3/8	9/16	5	7/16
4	7 7/8	3/8	6 5/8	7 3/8	7/16	6 5/8	7 3/8	9/16	7	7/16
5	9 7/16	3/8	8 5/8	9 3/8	7/16	8 5/8	9 3/8	9/16	9	7/16
6	2 1/2	3/8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	3	5/16	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

4

NOTE: "X" for Flange Conn. is the Insertion Length from Tip of Bulb to Face of Flange.

# Standard Ranges

## VTVA·VTR·716

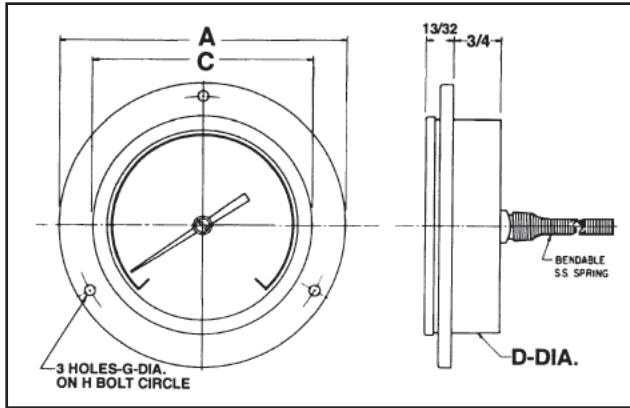


NOTE: Careful consideration should be used when selecting a range, since Vapor Thermometers have progressive graduations and are best read within the upper two thirds of range. Other ranges are available, consult the factory.



# Series VTVA & VTR Dimensions

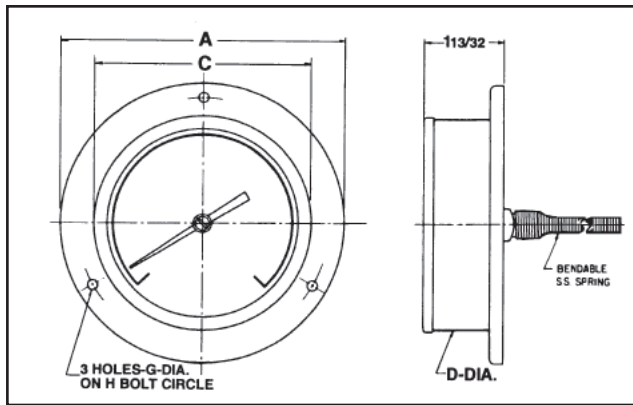
RB Case - Semi Flush Panel Mount



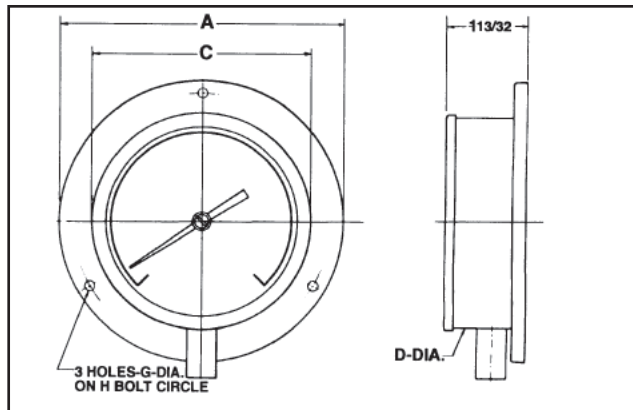
Series VTR Dimensions

DIAL SIZE	A	C	D	E	G	H	*PANEL HOLE
3 1/2"	4 3/4	3 11/16	3 19/32	1 1/4	5/32	4 5/16	3 5/8
4 1/2"	5 7/8	4 11/16	4 19/32	1 1/4	7/32	5 3/8	4 5/8

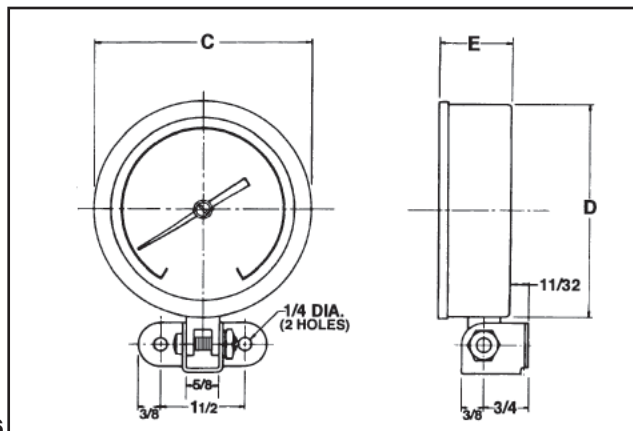
BB Case - Surface Mounted Back Connected



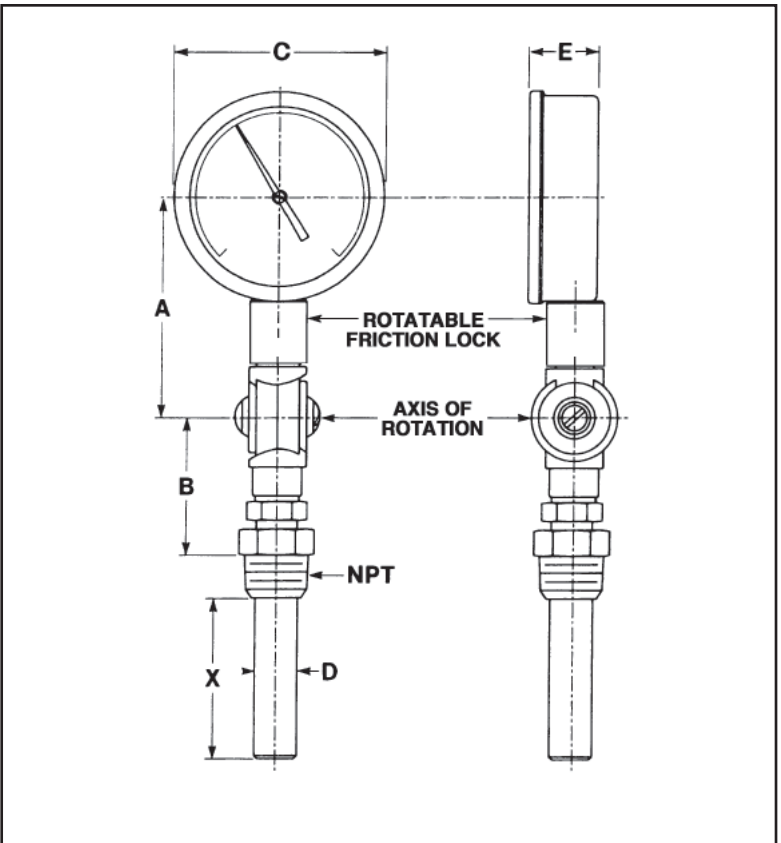
BL Case - Surface Mounted Bottom Connected



ZL Case - Adjustable Bracket Mount



Series VTVA - Direct Mount

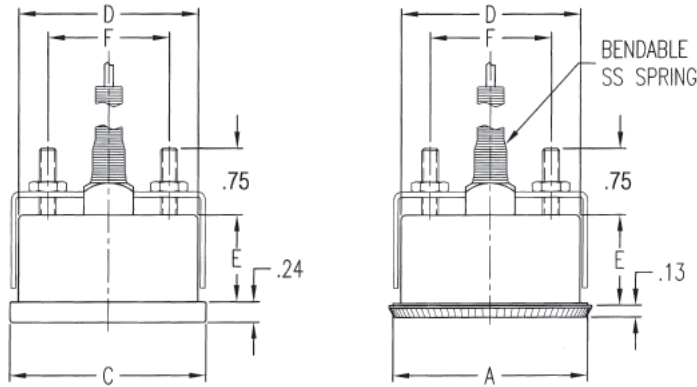


DIAL SIZE	A	B	C	E	*D	**X LENGTH FOR BULB NO. (CODE VI)			
						2	3	4	5
3 1/2"	3 7/8	2 9/16	3 11/16	1 1/4	9/16	2 5/8	4 5/8	6 5/8	8 5/8
4 1/2"	4 3/8	2 9/16	4 11/16	1 1/4	9/16				

\*D Dimension for Union Connection and Air Duct Union Flange Conn. is 7/16"  
 \*\* Same for Union Conn. and Air Duct Union Flange Connection.

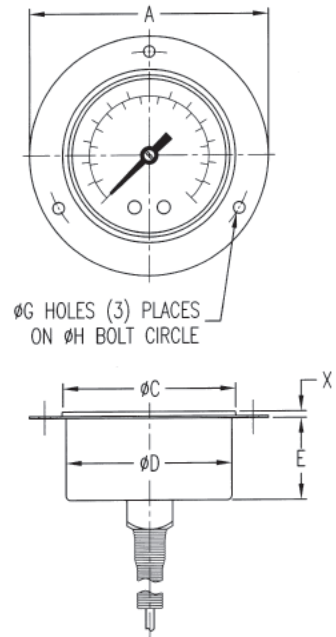
# Series 716 Dimensions

## Series 716 - U-Clamp Case Styles

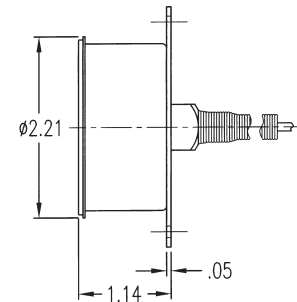


NOTE: CUSTOMER PANEL THICKNESS FOR MOUNTING FROM .03" TO .63".

## Front Flange Style



## Back Flange Style



## Case Dimensions

CASE SIZE	CASE TYPE	CODE I	FLGE DIA. A	RING O.D. C	PANEL HOLE B	DIA. D	E	F	G	H	X CASE FRONT CODE IV		
											4	3	5
1-1/2"	U-CLAMP	15U	1-13/16	—	1-5/8	1-19/32	7/8	1-1/16	—	—	—	—	—
2"	U-CLAMP	20U	2-7/32	2-11/16	2-1/16	2-1/32	31/32	1-3/8	—	—	3/16	3/32	—
2"	FRONT FLGE	20F	2-15/16	2-11/64	2-1/16	2-1/32	31/32	—	9/64	2-9/16	3/16	3/32	—
2-1/2"	U-CLAMP	25U	2-13/16	2-7/8	2-39/64	2-9/16	1	2	—	—	3/16	1/4	—
2-1/2"	FRONT FLGE	25F	3-11/16	2-7/8	2-39/64	2-9/16	1	—	11/64	3-5/16	3/16	1/4	—
2-1/2"	FRONT FLGE	25S	3-11/16	2-7/8	2-21/32	2-41/64	3/4	—	7/32	3-5/16	3/8	—	—
3-1/2"	FRONT FLGE	35S	4-3/4	3-31/32	3-5/8	3-19/32	3/4	—	5/32	4-5/16	7/16	—	—
3-1/2"	U-CLAMP	35J	3-31/32	3-31/32	3-5/8	3-19/32	3/4	3-1/16	—	—	7/16	—	—
3-1/2"	U-CLAMP	35Q	3-7/8	3-29/32	3-5/8	3-19/32	1	3-1/16	—	—	—	—	1/8