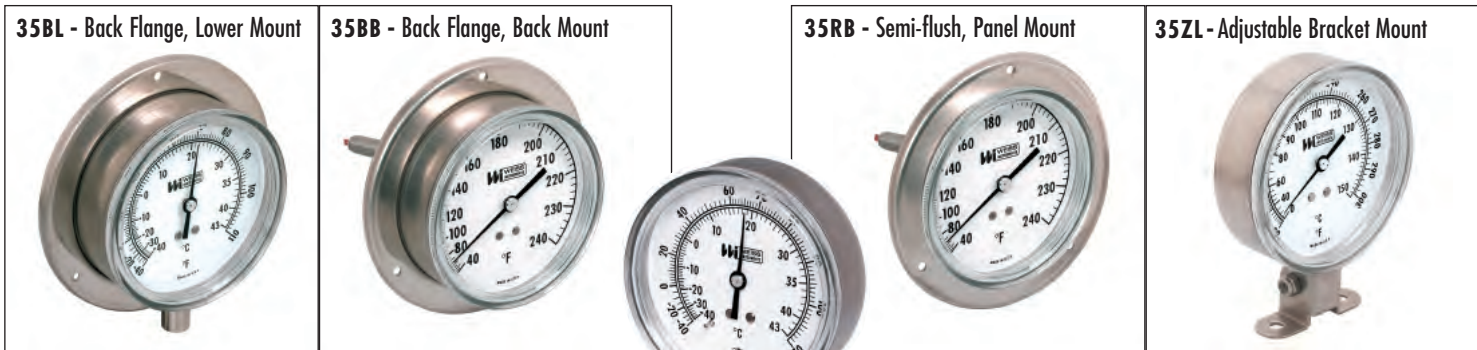


Series **VTVA & VTR** Direct Mount & Remote Reading



35VA - Vari-angle® Direct Mount



| CODE | CATALOG NO. | DESCRIPTION |
|------|-------------------------------------|---|
| I | 35 | CASE SIZE 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 | CASE CONNECTION Adjustable |
| | B | Back Connection |
| | L | Lower Connection |
| IV | 3 | CASE WINDOW Snap in Lexan with "O" Ring |
| V | | THERMAL SYSTEM |
| | 0 | Bulb Type Union Bulb Material Copper (Vari-angle only) |
| | 2 | Plain Copper Copper Cu. Braid |
| | 3 | Plain 316 S.S. 316 S.S. None |
| | 5 | Union Copper Copper Cu. Braid |
| | 7 | Union 316 S.S. Copper Cu. Braid |
| | 8 | Union 316 S.S. 316 S.S. Intlock Armor* |
| | 9 | Union 316 S.S. 316 S.S. None |
| | | *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 | | BULB SELECTION |
| | | Thermal System No. 5 Thru 9 (Union) |
| | | Thermal System No. 2 & 3 (Plain) |
| | | Max. System Len. |
| | 1 | 7/16 2.5" N.A. N.A. 10Ft. |
| | 2 | 7/16 3.4" 3/8 3.4 25Ft. |
| | 3 | 7/16 5.4" 3/8 4.9 50Ft. |
| 4 | 7/16 7.4" 3/8 7.9 99Ft. | |
| 5 | 7/16 9.4" 3/8 9.4 99Ft. | |
| X | 1/8" x 180" Averaging Bulb | 10Ft. |
| 6 | N.A. N.A. 3/8 2.5 05Ft. | |

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.

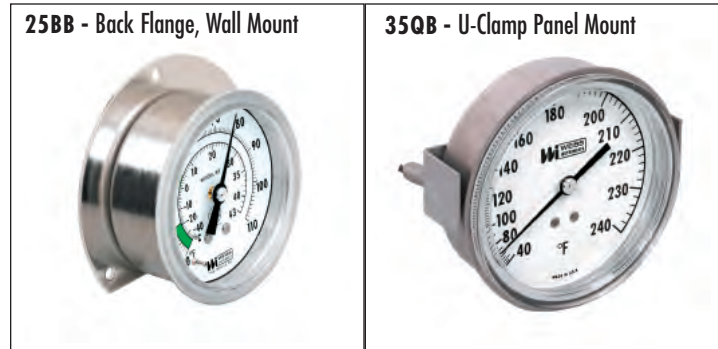
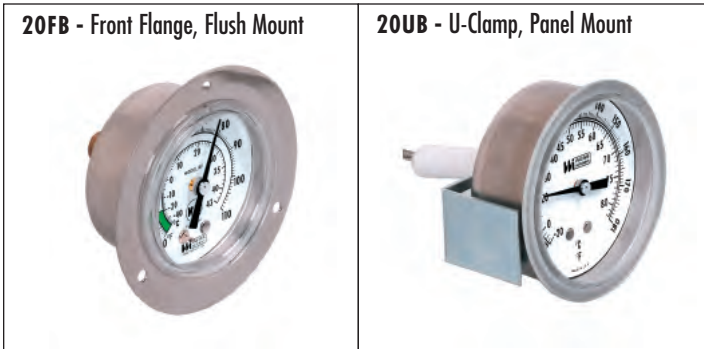
ACCURACY - one scale division throughout range.

| | | |
|------|-------------------|---|
| VII | | PROCESS CONNECTION FITTING |
| | 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 | | PROCESS CONNECTION MATERIAL |
| | 1 | Brass |
| | 2 | 304 Stainless Steel |
| | 3 | 316 Stainless Steel |
| | 5 | Aluminum (Air Duct Flange only) |
| | 0 | None - Plain Bulb |
| IX | See Example Below | SYSTEM LENGTH SPECIFYING |
| | A-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) |
| 4 5 B L 3 | 5 2 3 1 | 0 5 F T |
| RANGE | | |
| 40-240 F | | |

Series 716 Panel Mounting



| CODE | CATALOG NO. | DESCRIPTION | | | | |
|---|---|---|---|---------------------------|-----------------------------|-------|
| I | 15 | CASE SIZE 1-1/2" Case | | | | |
| | 20 | 2" Case | | | | |
| | 25 | 2-1/2" Case | | | | |
| | 35 | 3-1/2" Case | | | | |
| II | F | CASE TYPE 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 | CASE CONNECTION Back Connection - Standard | | | | |
| | L | Lower Connection | | | | |
| IV | 3 | CASE FRONT AND WINDOW 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 | THERMAL SYSTEM | | | | |
| | | Bulb Type | Bulb Material | Capillary Material | Capillary Protection | |
| | | 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 | BULB SELECTION | | | | |
| | | Thermal System No. 4 Thru 9 (Union) | Thermal System No. 1 - 3 (Plain) | Max. System Len. | | |
| | | Dia. | Length | Dia. | Length | |
| | | 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.

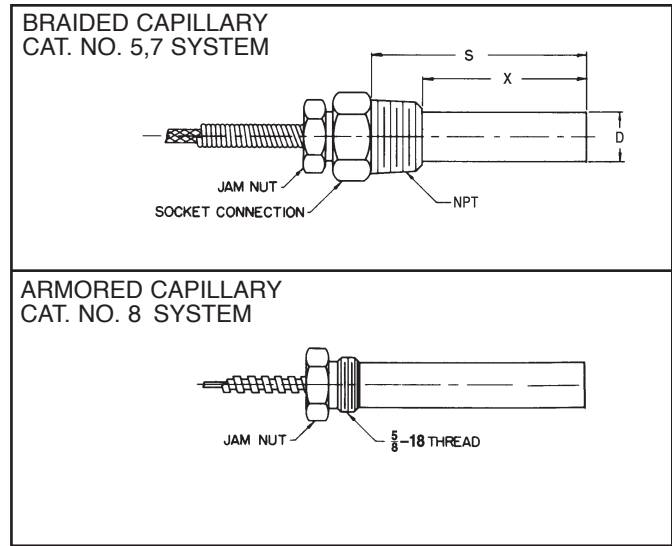
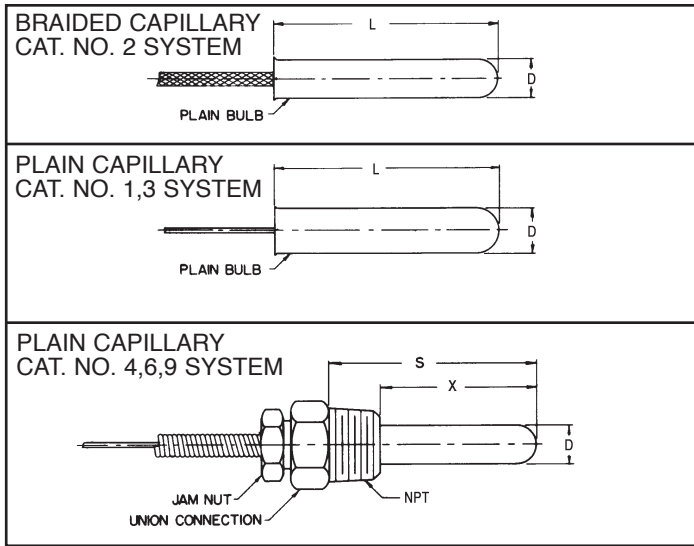
| | | |
|-----------|----------------------------|---|
| VII | 1 2 3 4 7 9 | PROCESS CONNECTION FITTING |
| | | Union Connection 1/2" NPT |
| | | Union Connection 3/4" NPT |
| | | Separable Socket 1/2" NPT |
| | | Separable Socket 3/4" NPT |
| | | Air Duct Flange, Union Conn., Aluminum only Plain bulb,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

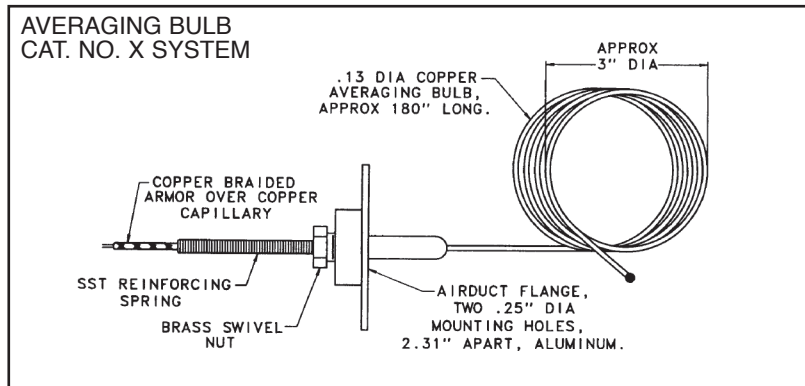
| | | |
|---------------------------------|--|--|
| CODE I-IV (HEAD ASSY) | CODE V-VIII (THERMAL SYSTEM) | CODE IX A - B (CAPILLARY LENGTH) |
| 20FB3 | 1690 | 05FT |
| CODE IX C | RANGE | |
| --- | 40-0-60 F&C | |

Thermal Systems

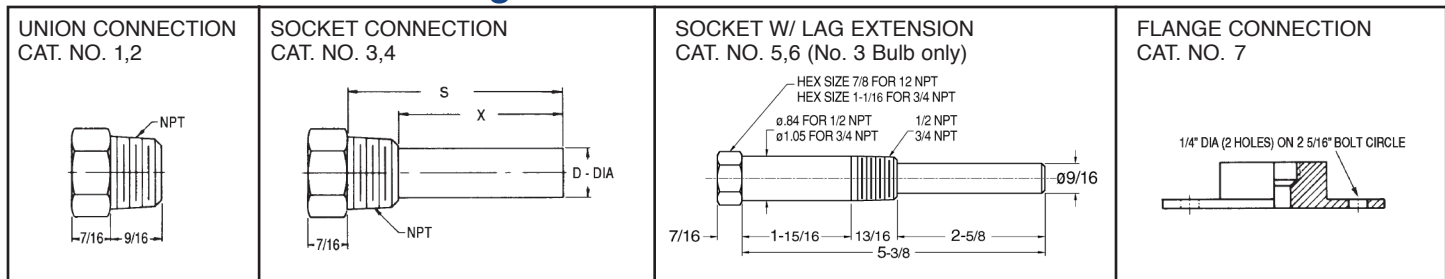
Code V



Code VI



Process Connection Fittings - Code VII



Bulb Dimensions

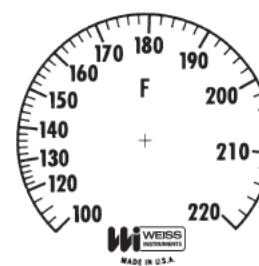
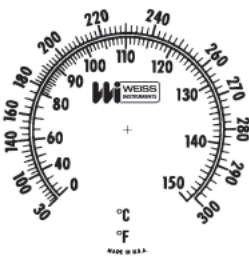
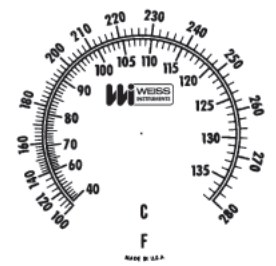
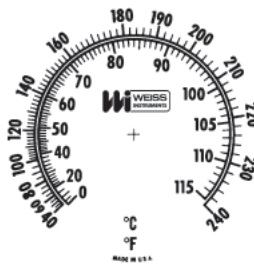
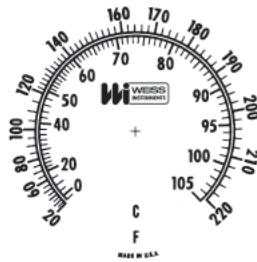
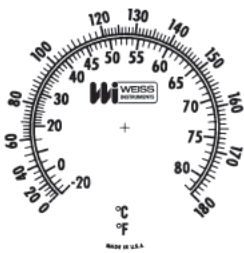
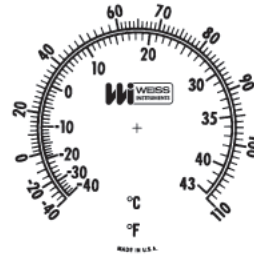
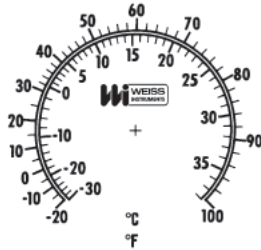
| BULB NO. (CODE VI) | PLAIN CONNECTION | | UNION CONNECTION | | | SOCKET CONNECTION | | | FLANGE CONNECTION | |
|-----------------------|------------------|------|------------------|-------|------|-------------------|-------|------|-------------------|------|
| | L | D | X | S | D | X | S | D | X | 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

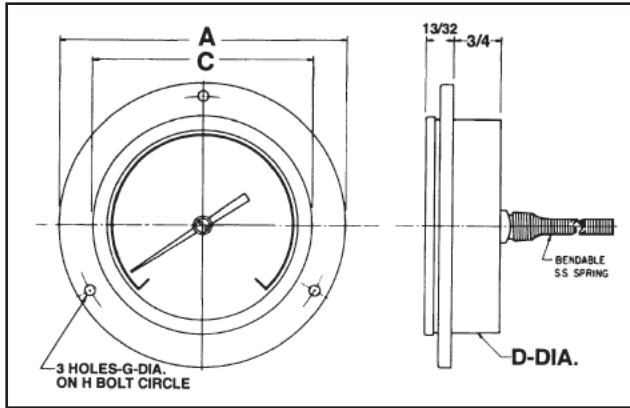
VTVA·VTR·716



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

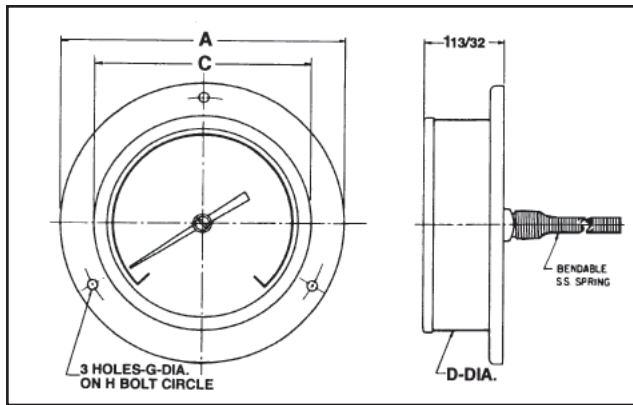
RB Case - Semi Flush Panel Mount



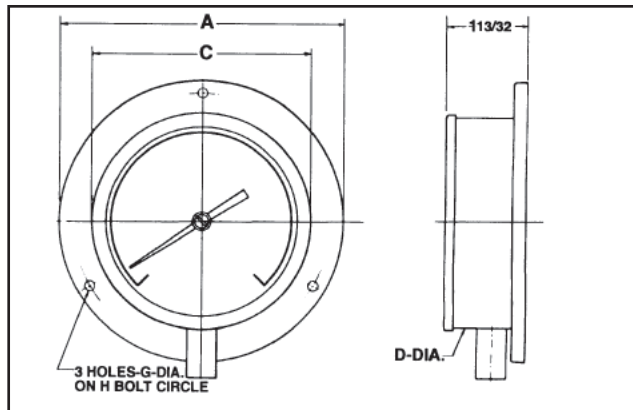
Series VTR Dimensions

| 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 |

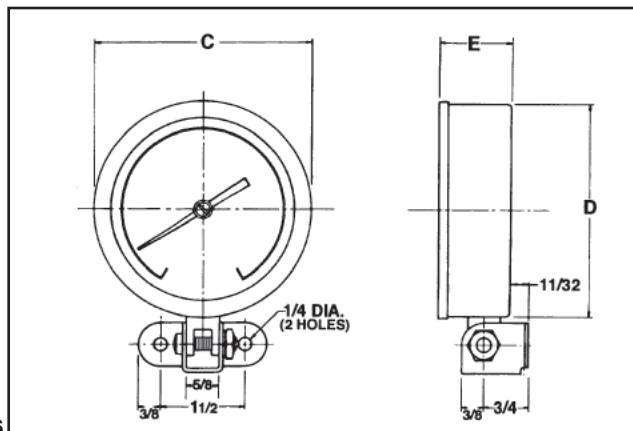
BB Case - Surface Mounted Back Connected



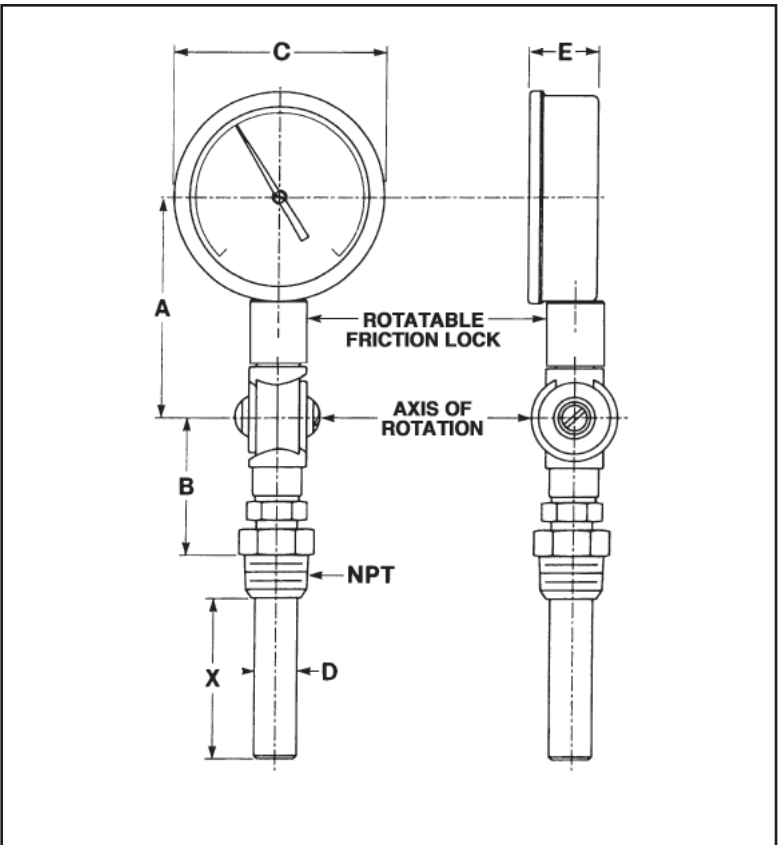
BL Case - Surface Mounted Bottom Connected



ZL Case - Adjustable Bracket Mount



Series VTVA - Direct Mount

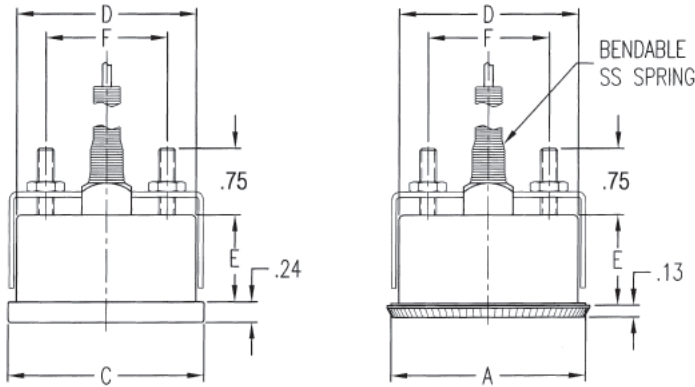


| DIAL SIZE | A | B | C | E | *D | **X LENGTH FOR BULB NO. (CODE VI) | | | |
|-----------|-------|--------|---------|-------|------|-----------------------------------|-------|-------|-------|
| | | | | | | 2 | 3 | 4 | 5 |
| 3 1/2" | 3 7/8 | 2 9/16 | 3 11/16 | 1 1/4 | 9/16 | 2 5/8 | 4 5/8 | 6 5/8 | 8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

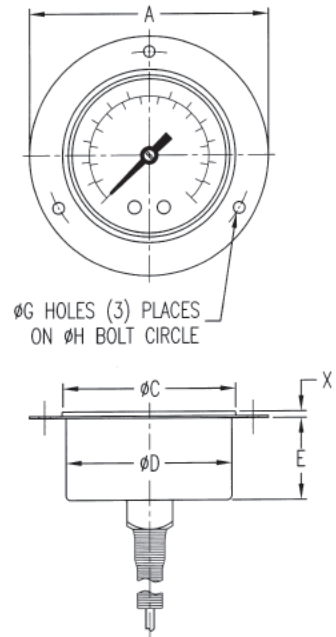
Series 716 Dimensions

Series 716 - U-Clamp Case Styles

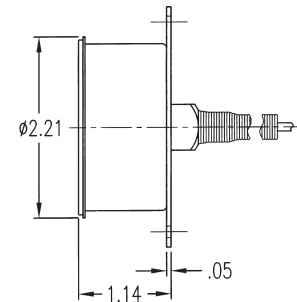


NOTE: CUSTOMER PANEL THICKNESS FOR MOUNTING FROM .03" TO .63".

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 |