



# PRESSURE & TEMPERATURE INSTRUMENTS

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Threaded Diaphragm Seal Specifications



### Considerations when selecting pressure gauges

DIAL SIZE	Standard available dial sizes: 1", 1 $\frac{1}{2}$ ", 2", 2 $\frac{1}{2}$ ", 3 $\frac{1}{2}$ ", 4", 4 $\frac{1}{2}$ ", 6", or 8 $\frac{1}{2}$ ". Other dial sizes are available. Determine dial size by measuring across the diameter of the face.
CONNECTION LOCATION	Lower mount is the most common. Center back mount or lower back mount is also considered standard. Other locations can be supplied by special request.
CONNECTION SIZE	Typical sizes include ½", ½" and ½" NPT. Other sizes and types of connections are available upon request. Please call to verify if there are special requirements.
MOUNTING	Lower mount or back mount (without special mounting hardware). Panel mount - U-clamp. Panel mount - Front flange. Wall mount - Back flange.
MATERIAL OF WETTED PARTS	Refers to all parts in contact with process fluid. Please check corrosion guides for suitable materials. Most applications are compatible with copper alloy or bronze tube and socket. More severe applications may require 316 stainless steel. Most severe applications require Monel parts. If none of these materials are adequate for the application, a diaphragm seal will be required.
DRY OR LIQUID FILLED	Dry gauges are suitable for most applications. Glycerine filled gauges will be specified for applications with pulsation or vibration or for other reasons based on customer preference. Silicone filling may be required where process conditions do not allow the use of glycerin filling, such as temperature extremes or concerns regarding interaction with the process media. Other fluids are available, please call for assistance.
CASE MATERIAL	Industry standard case materials for gauges include: black painted steel, chrome plated steel, aluminum, stainless steel, Phenolic and polypropylene.
RANGE	Specified in psi for pressures from 0 up to 15,000 psi or in inches of mercury vacuum for 0 to 30" Hg vacuum. Compound ranges have both pressure and vacuum. Other available scales: Metric (BAR, kPa, kg/cm2, mPa), Low pressure (inches of water column or millibar), Altitude (feet of water or meters of water), Force (tons on ram) and many others.
ACCURACY	Typically will be determined by size and type of gauge specified above. Accuracy grades are specified by ASME standards.
CERTIFICATION AND CLEANING	Conformance Certificate - States that gauge meets catalog and/or order specifications.  Certificate of Accuracy - Gauge is tested up scale and down scale with accuracy and percentage of error noted. Traceable to NIST.  Special Certification/Material Certification - By customer request, particular aspect of gauge certified to meet customer requirement.  Oxygen Cleaning - Gauge cleaned and bagged, suitable for oxygen service.  Special Cleaning - By customer request, cleaned to a particular cleanliness level required by customer.
OTHER	Any other special process conditions to be aware of or any special requirements the customer may have, such as approvals for 3A, NACE, UL or others.

### PART NUMBERING SYSTEM

CONNECTION

**8** = 1/8" NPT Male

**4** = 1/4" NPT Male

2 = 1/2" NPT Male

**DIAL SIZE** 

**10** = 1" Diameter

**20** = 2" Diameter

**40** = 4" Diameter

**60** = 6" Diameter

**15** = 1 ½" Diameter

25 = 2 ½" Diameter

 $35 = 3 \frac{1}{2}$  Diameter

**45** = 4 ½" Diameter

85 = 8 ½" Diameter

1

#### **SERIES TYPE**

- 1 = Steel Case with Chrome Ring, Copper alloy Internals
- 2 = Stainless Steel Case, Copper alloy Internals
- 3 = Stainless Steel Case, 316 SS Internals
- 4 = Ammonia Gauge
- **5** = Copper alloy Case, Copper alloy Internals
- 6 = Forged Copper alloy Case, Copper alloy Internals
- 7 = Black Poly Case, Copper alloy Internals

#### **SPECIAL FEATURES**

- 0 = Standard Gauge
- 1 = Removable Ring, Adjustable Pointer

#### **MOUNTING STYLE**

- 1 = Lower Mount
- 2 = Center Back Mount
- 3 = Back Connection, U-clamp Panel Mount
- **4** = Back Connection, Front Flange, Panel Mount
- **5** = Bottom Connection, Back Flange, Wall Mount
- 9 = Back Connection, Back Flange

### **CASE FILLING**

- $\mathbf{D} = Dry$
- L = Glycerine Filled
- S = Silicone Filled

### **RANGE**

- **A** = 30/0" Hg Vac
- **CB** = 30" Hg Vac/0/15 psi
- **CC** = 30" Hg Vac/0/30 psi
- **CD** = 30" Hg Vac/0/60 psi
- **CE** = 30" Hg Vac/0/100 psi
- **CF** = 30" Hg Vac/0/150 psi
- **CG** = 30" Hg Vac/0/200 psi
- **CH** = 30" Hg Vac/0/300 psi
- B = 0/15 psi
- C = 0/30 psi
- D = 0/60 psi
- E = 0/100 psi
- F = 0/160 psi
- G = 0/200 psi
- H = 0/300 psi
- I = 0/400 psi
- J = 0/500 psi
- K = 0/600 psi
- L = 0/800 psi
- M = 0/1000 psi
- N = 0/1500 psi
- $\mathbf{O} = 0/2000 \text{ psi}$
- P = 0/3000 psi
- Q = 0/4000 psi
- R = 0/5000 psi
- S = 0/6000 psi
- T = 0/7500 psi
- U = 0/10,000 psi
- V = 0/15,000 psi
- W = 0/20,000 psi

### **EXAMPLE:** "201L-254E"

- 2 = Stainless Steel Case, Copper alloy Internals
- 0 = Standard Gauge
- 1 = Lower Mount
- L = Glycerine Filled

25 = 2 1/2" Diameter Dial Size

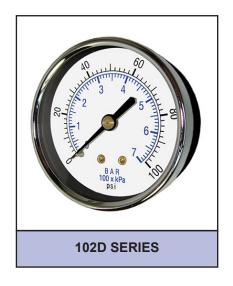
- 4 = 1/4" NPT male
- E = 0/100 psi

### **100 SERIES UTILITY GAUGE**



### Utility gauge for commercial and industrial markets Steel case, chrome bezel, copper alloy internals









		STAN	DAR	D DIAL COI	NFIGURATI	ONS FOR 1	00 S	ERIES
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dia Rang
30/0"hg Vac	5" hg	0.5" hg		0/30 psi	5 psi	0.5 psi		0/1000
30/0/15 psi	10" hg/5 psi	1" hg/0.5 psi		0/60 psi	10 psi	1 psi		0/1500
30/0/30 psi	10" hg/10psi	1" hg/1 psi		0/100 psi	20 psi	2 psi		0/2000
30/0/60 psi	10" hg/10psi	2" hg/1 psi		0/160 psi	20 psi	2 psi		0/3000
30/0/100 psi	30" hg/20psi	5" hg/2 psi		0/200 psi	40 psi	5 psi		0/4000
30/0/150 psi	30" hg/20psi	5" hg/2 psi		0/300 psi	50 psi	5 psi		0/5000
30/0/300 psi	30" hg/50psi	10" hg/5 psi		0/400 psi	50 psi	5 psi		0/6000

0/600 psi

100 psi

Dial Range	Figure Intervals	Graduation Intervals
0/1000 psi	200 psi	10 psi
0/1500 psi	200 psi	20 psi
0/2000 psi	400 psi	50 psi
0/3000 psi	500 psi	50 psi
0/4000 psi	800 psi	100 psi
0/5000 psi	1000 psi	100 psi
0/6000 psi	1000 psi	100 psi

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

0.1 psi

0/15 psi

2 psi

10 psi



### **101D UTILITY GAUGE LOWER MOUNT**

### 1 Utility gauge for commercial and industrial markets Black steel case, chrome bezel, copper alloy internals

#### **SPECIFICATIONS**

1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm), Dial

3 ½" (88 mm), 4 ½" (114 mm)

Case Black steel, dry non-fillable

**Wetted Parts** Copper alloy

Chrome plated steel, fixed Bezel Lens Plastic (4 1/2" = glass lens)

**Pointer** Black aluminum Connection Lower mount

1 1/2" dial = 1/8" NPT 2" dial = 1/8" or 1/4" NPT 2 ½" dial = ¼" NPT 3 1/2" dial = 1/4" NPT 4 1/2" dial = 1/4" NPT

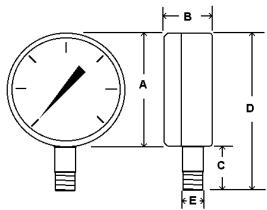
Standard: psi/BAR (x 100 = kPa) Scale

Single scale psi available from stock

Accuracy 3-2-3% of span, ASME B40.1 Grade B

**Ambient Temp** -50° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
1 ½"	ln.	1.64"	0.93"	0.65"	2.26"	1⁄8" NPT
I /2	mm	42	24	17	57	/8 INF I
2"	ln.	2.07"	1.06"	0.83"	2.83"	1/8"or 1/4"
	mm	53	27	21	72	NPT
2 ½"	ln.	2.5"	1.13"	0.88"	3.31"	1⁄4" NPT
Z /2	mm	63	29	22	84	/4 INF I
3 ½"	ln.	3.54"	1.12"	1.02"	4.49"	1⁄4" NPT
3 /2	mm	90	28	26	114	/4 INF I
4 ½"	ln.	4.79"	1.12"	1.10"	5.8"	1⁄4" NPT
4 /2	mm	122	29	28	147	



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 107
- Glass Lens
- Stainless Steel Case
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES** Est. Unit **Dial Size Box Qty** Weight 1 ½" 0.20 lbs 200 (0.10 kg)2" 0.26 lbs 100 (0.12 kg)2 1/2" 0.34 lbs 125 (0.15 kg)0.50 lbs 3 ½" 50 (0.23 kg)4 1/2" 0.60 lbs 50 (0.27 kg)

<sup>\*</sup>Lead times/minimums may apply

### **102D UTILITY GAUGE CENTER BACK MOUNT**



Utility gauge for commercial and industrial markets Black steel case, chrome bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm),

3 ½" (88 mm), 4 ½" (114 mm)

Case Black steel, dry non-fillable

**Wetted Parts** Copper alloy

Bezel Chrome plated steel, fixed

Plastic Lens

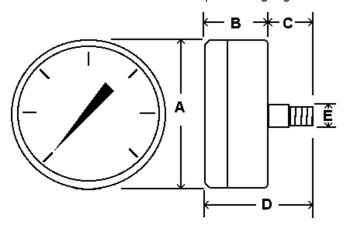
Pointer Black aluminum Connection Center back mount 1 ½" dial = ½" NPT

2" dial = 1/8" or 1/4" NPT 2 1/2" dial = 1/4" NPT 3 1/2" dial = 1/4" NPT 4 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa) Scale 3-2-3% of span, ASME B40.1 Grade B Accuracy

-50° F to 160° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
1 ½"	ln.	1.64"	0.93"	0.63"	1.54"	1/" NDT
I /2	mm	42	24	16	39	⅓" NPT
2"	ln.	2.07"	1.03"	0.89"	1.90"	1/8"or 1/4"
	mm	53	26	23	48	NPT
2 ½"	ln.	2.5"	1.17"	0.90"	1.97"	1⁄4" NPT
Z /2	mm	63	30	23	50	/4 INF I
3 ½"	ln.	3.49"	1.22"	0.83"	2.02"	1⁄4" NPT
3 /2	mm	89	31	21	51	/4 INF I
4 ½"	ln.	4.5"	1.31"	0.94"	2.18"	1⁄4" NPT
4 /2	mm	114	33	24	55	



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 107
- Glass Lens
- Stainless Steel Case
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

Dial Size	Est. Unit Weight	Box Qty
1 ½"	0.20 lbs (0.10 kg)	200
2"	0.26 lbs (0.13 kg)	100
2 1/2"	0.34 lbs (0.17 kg)	125
3 ½"	0.45 lbs (0.22 kg)	50
4 1/2"	0.65 lbs (0.30 kg)	25

<sup>\*</sup>Lead times/minimums may apply



### **103D UTILITY GAUGE U-CLAMP PANEL MOUNT**

### 1 Utility gauge for commercial and industrial markets Chrome case and bezel, copper alloy internals

### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm),

3 ½" (88 mm)

Chrome plated steel, dry non-fillable Case

 $(3 \frac{1}{2})$ " = black painted steel with plastic,

twist-off lens)

**Wetted Parts** Copper alloy

Chrome plated steel, fixed Bezel

Plastic Lens

Black aluminum **Pointer** 

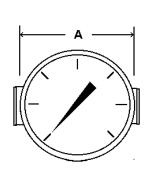
Center back mount with u-clamp Connection

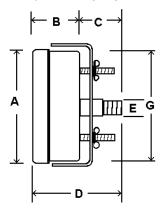
1 ½" dial = ½" NPT 2" dial = 1/8" or 1/4" NPT 2 1/2" dial = 1/4" NPT 3 ½" dial = ¼" NPT

Scale Standard: psi/BAR (x 100 = kPa) 3-2-3% of span, ASME B40.1 Grade B Accuracy

**Ambient Temp** -50° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.





Dial	Unit	Α	В	С	D	G	Е
1 ½"	ln.	1.84"	1.03"	0.63"	1.61"	1.61"	1⁄8" NPT
I /2	mm	47	26	16	41	41	/8 INF I
2"	ln.	2.31"	1.18"	0.73"	1.84"	2.04"	1/8"or 1/4"
	mm	59	30	19	47	52	NPT
2 ½"	In.	2.68"	1.12"	0.76"	1.87"	2.44"	1⁄4" NPT
<b>Z</b> /2	mm	68	28	19	48	62	/4 INF I
3 ½"	ln.	3.98"	1.23"	0.67"	2.02"	3.59"	1⁄4" NPT
3 /2	mm	101	31	17	51	91	/4 INP I



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 107
- Glass Lens
- Stainless Steel Case
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

Dial Size	Est. Unit Weight	Box Qty
1 ½"	0.20 lbs (0.10 kg)	100
2"	0.30 lbs (0.14 kg)	100
2 1/2"	0.35 lbs (0.18 kg)	100
3 ½"	0.60 lbs (0.26 kg)	50

<sup>\*</sup>Lead times/minimums may apply

### **104D UTILITY GAUGE** FRONT FLANGE PANEL MOUNT



### Utility gauge for commercial and industrial markets Chrome case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm),

3 1/2" (88 mm) - See 203D-354 p. 20

Case Chrome plated steel, dry non-fillable

**Wetted Parts** Copper alloy

Bezel Chrome plated steel, fixed

Plastic Lens

**Pointer** Black aluminum

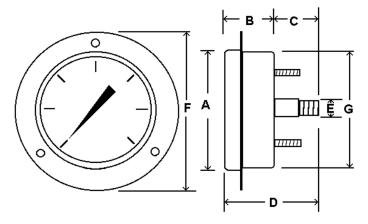
Center back mount with front flange Connection

> Ships with u-clamp 1 1/2" dial = 1/8" NPT 2" dial = 1/8" or 1/4" NPT 2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)Accuracy 3-2-3% of span, ASME B40.1 Grade B

-50° F to 160° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	F	G	E
1 ½"	ln.	1.84"	1.03"	0.63"	1.61"	2.23"	1.61"	1⁄8" NPT
I /2	mm	47	26	16	41	57	41	78 INP I
2"	ln.	2.31"	1.18"	0.73"	1.84"	2.81"	2.04"	1/8"or 1/4"
	mm	59	30	19	47	71	52	NPT
2 ½"	In.	2.68"	1.12"	0.76"	1.87"	3.47"	2.44"	1⁄4" NPT
Z /2	mm	68	28	19	48	88	62	/4 INP I

For complete flange dimensions, see page 121.



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 107
- Glass Lens
- Stainless Steel Case
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit **Box Qty** Weight 1 1/2" 0.20 lbs upon request (0.10 kg)0.35 lbs upon request (0.16 kg)

0.40 lbs

(0.18 kg)

2 1/2"

upon request

<sup>\*</sup>Lead times/minimums may apply



### **SE-100 SERIES UTILITY GAUGE**

1 Utility gauge for commercial and industrial markets Black steel case and bezel, copper alloy internals





STANDARD DIAL CONFIGURATIONS FOR SE-100 SERIES							
Dial Range	Figure Intervals	Graduation Intervals					
30/0"hg Vac	5" hg	0.5" hg					
0/15 psi	2 psi	0.1 psi					
0/30 psi	5 psi	0.5 psi					
0/60 psi	10 psi	1 psi					
0/100 psi	20 psi	2 psi					
0/160 psi	20 psi	2 psi					
0/200 psi	40 psi	5 psi					
0/300 psi	50 psi	5 psi					
0/400 psi	50 psi	5 psi					
0/600 psi	100 psi	10 psi					

### **SE-101D UTILITY GAUGE LOWER MOUNT**



### Utility gauge for commercial and industrial markets Black steel case and bezel, copper alloy internals

### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm)

Case Black steel, dry non-fillable

**Wetted Parts** Copper alloy

Black painted steel, fixed Bezel

Lens Glass

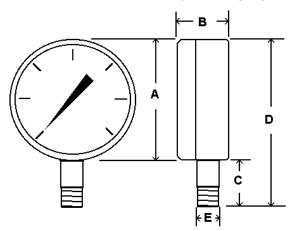
**Pointer** Black aluminum Connection Lower mount 1 1/2" dial = 1/8" NPT

2" dial = 1/8" or 1/4" NPT 2 ½" dial = ¼" NPT

Scale Standard: psi/BAR (x 100 = kPa)3-2-3% of span, ASME B40.1 Grade B Accuracy

-50° F to 160° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е
1 ½"	ln.	1.64"	0.93"	0.63"	2.27"	1⁄8" NPT
I /2	mm	42	24	16	58	/8 INF I
2"	In.	2.07"	1.03"	0.83"	2.90"	1/8"or 1/4"
	mm	53	26	21	74	NPT
2 ½"	ln.	2.5"	1.17"	0.86"	3.36"	1⁄4" NPT
Z /2	mm	63	30	22	26	/4 INF I



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Plastic Lens
- Max/Min Pointer, see page 120

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Weight	Box Qty			
1 ½"	0.10 lbs (0.06 kg)	100			
2"	0.20 lbs (0.10 kg)	100			
2 ½"	0.30 lbs (0.14 kg)	100			



### **SE-102D UTILITY GAUGE CENTER BACK MOUNT**

### 1 Utility gauge for commercial and industrial markets Black steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm)

Case Black steel, dry non-fillable

**Wetted Parts** Copper alloy

Black painted steel, fixed Bezel

Lens Glass

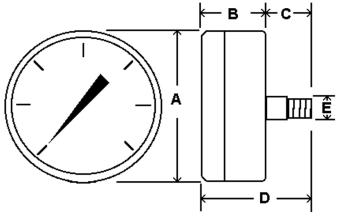
**Pointer** Black aluminum Connection Center back mount 1 1/2" dial = 1/8" NPT

2" dial =  $\frac{1}{8}$ " or  $\frac{1}{4}$ " NPT 2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa) **Accuracy** 3-2-3% of span, ASME B40.1 Grade B

**Ambient Temp** -50° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
4 17"	ln.	1.64"	0.93"	0.63"	1.54"	1⁄8" NPT
1 ½"	mm	42	24	16	39	78 INP I
2"	ln.	2.07"	1.03"	0.83"	1.86"	1/8" or 1/4"
	mm	53	26	21	47	NPT
2 ½"	ln.	2.5"	1.17"	0.90"	1.97"	1/" NDT
Z //2	mm	63	30	23	50	1⁄4" NPT



#### **AVAILABLE OPTIONS\***

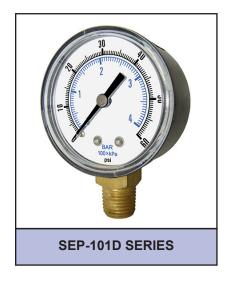
- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Plastic Lens
- Max/Min Pointer, see page 120

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Weight	Box Qty			
1 ½"	0.15 lbs (0.06 kg)	100			
2"	0.25 lbs (0.10 kg)	100			
2 ½"	0.37 lbs (0.17 kg)	100			

### **SEP-100 UTILITY GAUGE ABS PLASTIC CASE**



ABS plastic case utility gauge for commercial and industrial markets Black plastic case, copper alloy internals





STANDARD DIAL CONFIGURATIONS FOR SEP-100 SERIES						
Dial Range	Figure Intervals	Graduation Intervals				
30/0"hg Vac	5" hg	0.5" hg				
0/15 psi	2 psi	0.1 psi				
0/30 psi	5 psi	0.5 psi				
0/60 psi	10 psi	1 psi				
0/100 psi	20 psi	2 psi				
0/160 psi	20 psi	2 psi				
0/200 psi	40 psi	5 psi				
0/300 psi	50 psi	5 psi				



### **SEP-101D UTILITY GAUGE ABS PLASTIC CASE**

1 ABS plastic case utility gauge for commercial and industrial markets Black plastic case, copper alloy internals

### **SPECIFICATIONS**

Dial 2" (50 mm)

Case ABS plastic, dry non-fillable

**Wetted Parts** Copper alloy Plastic Lens

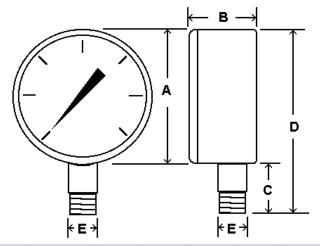
Black aluminum **Pointer** Connection Lower mount

2" dial = 1/8" or 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa) 3-2-3% of span, ASME B40.1 Grade B Accuracy

-40° F to 140° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
2"	ln.	2.09"	1.14"	0.83"	2.83"	1/8" or 1/4"
	mm	53	29	21	72	NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

<sup>\*</sup>Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES				
Dial Size	Est. Unit	Box Qtv		

Dial Size	Est. Unit Weight	Box Qty
2"	0.15 lbs (0.08 kg)	100

### **SEP-102D UTILITY GAUGE ABS PLASTIC CASE**



### ABS plastic case utility gauge for commercial and industrial markets Black plastic case, copper alloy internals

### **SPECIFICATIONS**

Dial 2" (50 mm)

ABS plastic, dry non-fillable Case

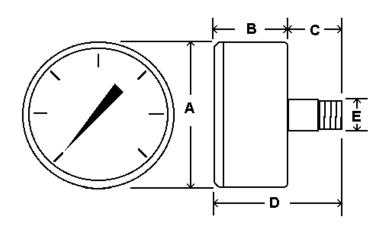
**Wetted Parts** Copper alloy Lens Plastic

**Pointer** Black aluminum Connection Center back mount 2" dials = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa) Accuracy 3-2-3% of span, ASME B40.1 Grade B

-40° F to 140° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
2"	ln.	2.11"	1.06"	0.71"	1.77"	1/" NDT
	mm	54	27	18	45	1⁄4" NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty			
2"	0.20 lbs (0.08 kg)	100			

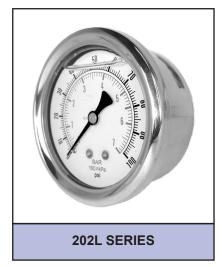


### **200 SERIES** LIQUID FILLED GAUGE

Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals









		STAN	DAR	D DIAL CO	NFIGURATI	ONS FOR 2	00 S	ERIES
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dia Ranç
30/0"hg Va	5" hg	0.5" hg		0/60 psi	10 psi	0.5 psi		0/1000
30/0/15 psi	10" hg/5 psi	1" hg/0.5 psi		0/100 psi	20 psi	2 psi		0/1500
30/0/30 psi	10" hg/5psi	1" hg/0.5 psi		0/160 psi	20 psi	2 psi		0/2000
30/0/60 psi	30" hg/10psi	2" hg/1 psi		0/200 psi	40 psi	5 psi		0/3000
30/0/100 ps	si 30" hg/20psi	5" hg/2 psi		0/300 psi	50 psi	5 psi		0/4000
30/0/150 ps	si 30" hg/30psi	5" hg/2 psi		0/400 psi	50 psi	5 psi		0/5000
30/0/300 ps	i 30" hg/50psi	10" hg/5 psi		0/500 psi	100 psi	10 psi		0/6000
0/15 psi	2 psi	0.1 psi		0/600 psi	100 psi	10 psi		0/10,00
0/30 psi	5 psi	0.5 psi		0/800 psi	100 psi	10 psi		0/15,00

Dial Range	Figure Intervals	Graduation Intervals
0/60 psi	10 psi	0.5 psi
0/100 psi	20 psi	2 psi
0/160 psi	20 psi	2 psi
0/200 psi	40 psi	5 psi
0/300 psi	50 psi	5 psi
0/400 psi	50 psi	5 psi
0/500 psi	100 psi	10 psi
0/600 psi	100 psi	10 psi
0/800 psi	100 psi	10 psi

Dial Range	Figure Intervals	Graduation Intervals
0/1000 psi	200 psi	20 psi
0/1500 psi	200 psi	20 psi
0/2000 psi	400 psi	40 psi
0/3000 psi	500 psi	50 psi
0/4000 psi	500 psi	50 psi
0/5000 psi	1000 psi	100 psi
0/6000 psi	1000 psi	100 psi
0/10,000 psi	2000 psi	200 psi
0/15,000 psi	2000 psi	200 psi

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### **201L LIQUID FILLED LOWER MOUNT**



Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm), 4" (100 mm)

Case Stainless steel, glycerine filled

**Wetted Parts** Copper alloy

Bezel Stainless steel, fixed Lens Polycarbonate Pointer Black aluminum Connection Lower mount 1 1/2" dial = 1/8" NPT

2" dial = 1/8" or 1/4" NPT  $4" \text{ dial} = \frac{1}{4}" \text{ or } \frac{1}{2}" \text{ NPT}$ 

Standard: psi/BAR (x 100 = kPa) Scale

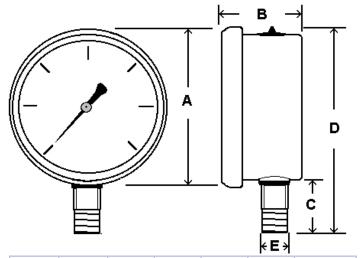
Accuracy 3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B

2-1-2% of span 4" ASME B40.1 Grade A

**Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
1 ½"	ln.	1.85"	1.00"	0.67"	2.28"	1⁄8" NPT
1 /2	mm	47	25	17	58	/8 INF I
2"	ln.	2.27"	1.20"	0.91"	2.95"	1/8" or 1/4"
	mm	58	31	23	75	NPT
4"	ln.	4.29"	1.75"	1.17"	5.21"	1⁄4" or 1⁄2"
4	mm	109	45	30	132	NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Glass Lens
- Dry, Fillable Case
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty			
1 ½"	0.20 lbs (0.10 kg)	100			
2"	0.40 lbs (0.18 kg)	100			
4"	1.5 lbs (0.68 kg)	30			



### **202L LIQUID FILLED CENTER BACK MOUNT**

Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

1 ½" (40 mm), 2" (50 mm), 4" (100 mm) Dial

2 Case Stainless steel, glycerine filled

Wetted Parts Copper alloy

Stainless steel, fixed Bezel Lens Polycarbonate Pointer Black aluminum Center back mount Connection 1 1/2" dial = 1/8" NPT

2" dial =  $\frac{1}{8}$ " or  $\frac{1}{4}$ " NPT 4" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)

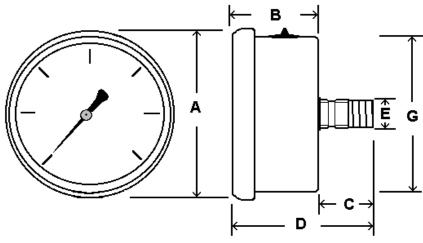
**Accuracy** 3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B

2-1-2% of span 4" ASME B40.1 Grade A

Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	G
1 ½"	ln.	1.85"	1.02"	0.72"	1.74"	1/" NDT	1.63"
I /2	mm	47	26	18	44	1/8" NPT	42
2"	ln.	2.28"	1.18"	0.94"	2.08"	1⁄8" or	2.05"
	mm	58	30	24	53	1⁄4" NPT	52
4"	ln.	4.29"	1.78"	1.37"	3.15"	1/" NDT	3.91"
4	mm	109	45	35	80	1⁄4" NPT	99



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Glass Lens
- Dry, Fillable Case
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 ½"	0.20 lbs (0.10 kg)	100
2"	0.40 lbs (0.18 kg)	100
4"	1.50 lbs (0.70 kg)	30

### **203L LIQUID FILLED** U-CLAMP PANEL MOUNT



Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals

### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (51 mm), 4" (100 mm)

Case Stainless steel, glycerine filled

**Wetted Parts** Copper alloy

Bezel Stainless steel, fixed Lens Polycarbonate Pointer Black aluminum

Connection Center back mount with u-clamp

> 1 1/2" dial = 1/8" NPT 2" dial = 1/8" or 1/4" NPT 4" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa) Scale

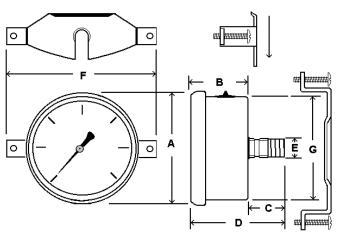
Accuracy 3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B

2-1-2% of span 4" ASME B40.1 Grade A

**Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F	G
1 ½"	ln.	1.85"	1.02"	0.72"	1.74"	⅓" NPT	2.75"	1.63"
1 /2	mm	47	26	18	44	/8 INF I	70	42
2"	ln.	2.28"	1.18"	0.94"	2.08"	1⁄8" or	3.13"	2.05"
	mm	58	30	24	53	1⁄4"NPT	80	52
4"	ln.	4.29"	1.78"	1.37"	3.15"	1⁄4" or	5.6"	3.91"
4"	mm	109	45	35	80	½"NPT	141	99



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Glass Lens
- Dry, Fillable Case
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 ½"	0.30 lbs (0.13 kg)	100
2"	0.50 lbs (0.23 kg)	100
4"	1.70 lbs (0.76 kg)	30



### 3 1/2" 203D FILLABLE **U-CLAMP PANEL MOUNT**

Dry yet fillable gauge for durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 3 ½" (88 mm)

2 Case Stainless steel, dry yet fillable

Wetted Parts Copper alloy

Stainless steel, fixed Bezel Polycarbonate Lens **Pointer** Black aluminum

Lower back mount with u-clamp Connection

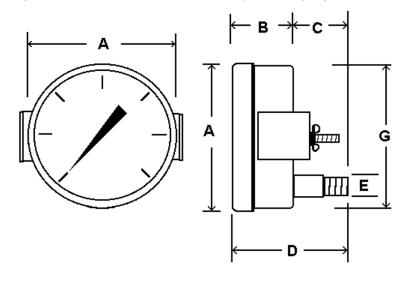
3 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa)Scale 2-1-2% of span, ASME B40.1 Grade A **Accuracy** 

**Ambient Temp**  $Dry = -30^{\circ} F \text{ to } 180^{\circ} F$ 

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	G
2 1/"	In.	3.83"	1.13"	1.00"	2.15"	1/" NDT	3.50"
3 ½"	mm	97	29	25	55	1/4" NPT	89



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Max/Min Pointer, see page 120

Dial Size	Est. Unit Weight	Box Qty
3 ½"	0.60 lbs (0.28 kg)	50

<sup>\*</sup>Lead times/minimums may apply

### 204L LIQUID FILLED FRONT FLANGE PANEL MOUNT



Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm), 3 ½" (88 mm),

4" (100 mm)

Stainless steel, glycerine filled Case

Wetted Parts Copper alloy

Bezel Stainless steel, fixed Lens Polycarbonate Pointer Black aluminum

Connection Center back mount with front flange

> 1 1/2" dial = 1/8" NPT 2" dial = 1/8" or 1/4" NPT

 $3\frac{1}{2}$ " dial =  $\frac{1}{4}$ " NPT - ships with u-clamp

4" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa) Scale

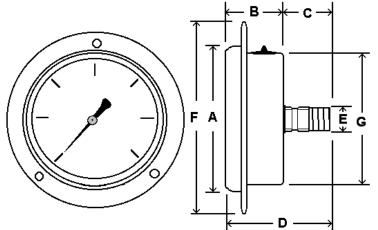
3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B Accuracy

2-1-2% of span 4" ASME B40.1 Grade A

**Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
1 ½"	ln.	1.85"	1.02"	0.72"	1.74"	1⁄8" NPT	2.46"	1.63"
I /2	mm	47	26	18	44		63	42
2"	ln.	2.28"	1.18"	0.94"	2.08"	1⁄8" or	2.81"	2.05"
	mm	58	30	24	53	1⁄4"NPT	72	52
4"	ln.	4.29"	1.78"	1.37"	3.15"	1⁄4" or	5.14"	3.91"
4	mm	109	45	35	80	½"NPT	130	99



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Glass Lens
- Dry, Fillable Case
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

DOX GOARTITIES					
Dial Size	Est. Unit Weight	Box Qty			
1 ½"	0.30 lbs (0.13 kg)	100			
2"	0.50 lbs (0.23 kg)	100			
4"	1.70 lbs (0.76 kg)	30			

For complete flange dimensions, see page 121.



### **210 SERIES FILLABLE GAUGE**

Dry yet fillable gauge with removable bezel, adjustable pointer Stainless steel case and bezel, copper alloy internals









		STANI
Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg
30/0/30 psi	10" hg/5 psi	1" hg/0.5 psi
30/0/60 psi	30" hg/10psi	2" hg/1 psi
30/0/100 psi	30" hg/20psi	5" hg/2 psi
30/0/150 psi	30" hg/30psi	5" hg/2 psi
0/15 psi	2 psi	0.1 psi
0/30 psi	5 psi	0.25 psi

Dial Range	Figure Intervals	Graduation Intervals
0/60 psi	10 psi	0.5 psi
0/100 psi	20 psi	2 psi
0/160 psi	20 psi	2 psi
0/200 psi	40 psi	5 psi
0/300 psi	50 psi	5 psi
0/400 psi	50 psi	5 psi
0/600 psi	100 psi	10 psi

Dial Range	Figure Intervals	Graduation Intervals
0/1000 psi	200 psi	20 psi
0/1500 psi	200 psi	20 psi
0/2000 psi	200 psi	20 psi
0/3000 psi	500 psi	50 psi
0/4000 psi	500 psi	100 psi
0/5000 psi	1000 psi	100 psi
0/6000 psi	1000 psi	100 psi
0/10,000 psi	2000 psi	200 psi

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### 211D REMOVABLE BEZEL **LOWER MOUNT**



Dry yet fillable gauge with removable bezel, adjustable pointer Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, dry - fillable Case

**Wetted Parts** Copper alloy

Removable, stainless steel Bezel

Lens Glass

**Pointer** Adjustable, black aluminum

Connection Lower mount

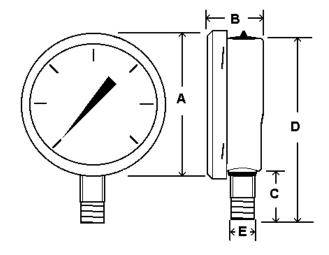
2 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa) Scale 2-1-2% of span ASME B40.1 Grade A **Accuracy** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F **Ambient Temp** 

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



	Dial	Unit	Α	В	С	D	E
Γ.	2 ½"	ln.	2.83"	1.42"	1.06"	3.54"	1/4"
1	<b>Z</b> /2	mm	72	36	27	90	NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Plastic Lens

2 1/2"

Max/Min Pointer, see page 120

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit **Box Qty** Weight

0.40 lbs

(0.20 kg)

100



### 212D REMOVABLE BEZEL **CENTER BACK MOUNT**

Dry yet fillable gauge with removable bezel, adjustable pointer Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 2 ½" (63 mm),

Stainless steel, dry yet fillable Case

**Wetted Parts** Copper alloy

Removable, stainless steel Bezel

Lens Glass

**Pointer** Adjustable, black aluminum

Connection Center back mount

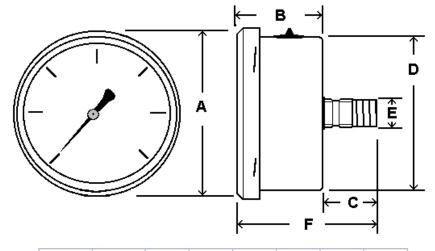
2 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa) Scale 2-1-2% of span ASME B40.1 Grade A Accuracy

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F **Ambient Temp** 

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F
2 1/2"	ln.	2.83"	1.37"	1.00"	2.49"	1/4"	2.29"
2 1/2"	mm	72	35	25	63	NPT	58



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Plastic Lens
- Max/Min Pointer, see page 120

<sup>\*</sup>Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Weight	Box Qty			
2 ½"	0.40 lbs (0.20 kg)	50			

### 213D REMOVABLE BEZEL **U-CLAMP PANEL MOUNT**



Dry yet fillable gauge with removable bezel, adjustable pointer Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, dry yet fillable Case

**Wetted Parts** Copper alloy

Removable, stainless steel Bezel

Lens Glass

**Pointer** Adjustable, black aluminum Center back mount with u-clamp Connection

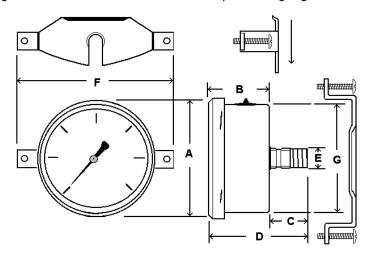
2 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa) Scale 2-1-2% of span ASME B40.1 Grade A **Accuracy** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F **Ambient Temp** 

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
2 1/2"	ln.	2.83"	1.37"	1.00"	2.29"	1/4"	3.84"	2.48"
Z /2	mm	72	35	25	58	NPT	98	63



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Plastic Lens
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1/2"	0.55 lbs (0.25 kg)	50



# 214D REMOVABLE BEZEL FRONT FLANGE PANEL MOUNT

Dry yet fillable gauge with removable bezel, adjustable pointer Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

**Dial** 2 ½" (63 mm)

Case Stainless steel, dry yet fillable

Wetted Parts Copper alloy

Bezel Removable, stainless steel

**Lens** Glass

Pointer Adjustable, black aluminum

**Connection** Center back mount with front flange

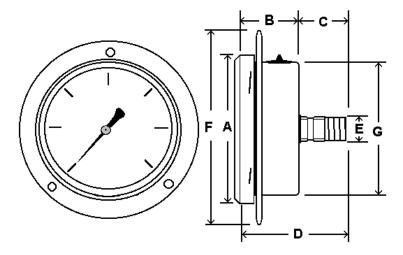
1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)
Accuracy 2-1-2% of span ASME B40.1 Grade A

**Ambient Temp** Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F	G
2 1/2"	ln.	2.83"	1.37"	1.00"	2.29"	1/4"	3.45"	2.48"
Z /2	mm	72	35	25	58	NPT	88	63

For complete flange dimensions, see page 121.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Plastic Lens
- Max/Min Pointer, see page 120

Dial Size	Est. Unit Weight	Box Qty
2 1/2"	0.55 lbs (0.25 kg)	50

<sup>\*</sup>Lead times/minimums may apply

### **PRO-200 SERIES** LIQUID FILLED GAUGE

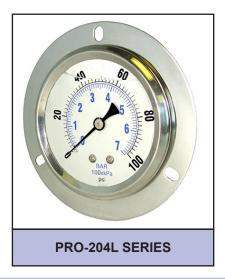


Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals









	STANDARD DIAL CONFIGURATIONS FOR SEC-200 SERIES							
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Range
30/0"hg Vac	5" hg	0.5" hg		0/60 psi	10 psi	1 psi		0/1000 psi
30/0/30 psi	10" hg/10psi	1" hg/1 psi		0/100 psi	20 psi	2 psi		0/1500 psi
30/0/60 psi	10" hg/10psi	2" hg/1 psi		0/160 psi	20 psi	2 psi		0/2000 psi
30/0/100 psi	30" hg/20psi	5" hg/2 psi		0/200 psi	40 psi	4 psi		0/3000 psi
30/0/150 psi	30" hg/20psi	5" hg/2 psi		0/300 psi	50 psi	5 psi		0/4000 psi
30/0/300 psi	30" hg/50psi	10" hg/5 psi		0/400 psi	50 psi	5 psi		0/5000 psi
0/15 psi	2 psi	0.1 psi		0/500 psi	100 psi	10 psi		0/6000 psi
0/30 psi	5 psi	0.5 psi		0/600 psi	100 psi	10 psi		0/10,000 ps

Dial Range	Figure Intervals	Graduation Intervals
0/60 psi	10 psi	1 psi
0/100 psi	20 psi	2 psi
0/160 psi	20 psi	2 psi
0/200 psi	40 psi	4 psi
0/300 psi	50 psi	5 psi
0/400 psi	50 psi	5 psi
0/500 psi	100 psi	10 psi
0/600 psi	100 psi	10 psi

Dial Range	Figure Intervals	Graduation Intervals
0/1000 psi	200 psi	20 psi
0/1500 psi	200 psi	20 psi
0/2000 psi	400 psi	40 psi
0/3000 psi	500 psi	50 psi
0/4000 psi	500 psi	50 psi
0/5000 psi	1000 psi	100 psi
0/6000 psi	1000 psi	100 psi
0/10,000 psi	2000 psi	200 psi

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

Dial 2 ½" (63 mm)

Case Stainless steel, glycerine filled

Wetted Parts Copper alloy

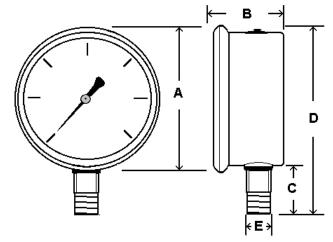
Bezel Stainless steel, fixed Polycarbonate Lens **Pointer** Black aluminum Connection Lower mount

2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)Accuracy 2-1-2% of span ASME B40.1 Grade A Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е
2 ½"	ln.	2.65"	1.20"	0.88"	3.30"	1/4"
Z /2	mm	68	30	22	84	NPT



- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 180
- Anti-Vibration Movement, see page 113
- Dry, Fillable Case
- Special Connection Size
- Protective Rubber Cover, see page 125
- Max/Min Pointer, see page 126

Dial Size	Est. Unit Weight	Box Qty		
2 1/2"	0.45 lbs (0.20 kg)	100		

<sup>\*</sup>Lead times/minimums may apply

### **PRO-202L LIQUID FILLED CENTER BACK MOUNT**



Improved accuracy to ASME B40.1 Grade A. One piece design for toughness during installation. Glycerin filled for added durability during in application. Stainless steel case and bezel with copper alloy internals.

Dial 2 ½" (63 mm),

Case Stainless steel, glycerine filled

**Wetted Parts** Copper alloy

Bezel Stainless steel, fixed Lens Polycarbonate Black aluminum Pointer Connection Center back mount

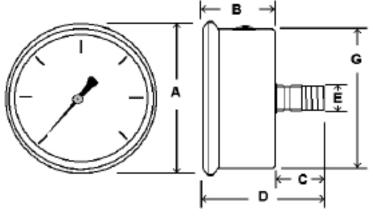
2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)2-1-2% of span ASME B40.1 Grade A Accuracy

Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	G	E
2 ½"	ln.	2.65"	1.21"	0.91"	2.09"	2.44"	1/4"
<b>Z</b> /2	mm	68	31	23	53	61.85	NPT



- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 180
- Anti-Vibration Movement, see page 113
- Dry, Fillable Case
- Special Connection Size
- Protective Rubber Cover, see page 125
- Max/Min Pointer, see page 126

Dial Size	Est. Unit Weight	Box Qty
2 1/2"	0.45 lbs (0.22 kg)	60



### **PRO-203L LIQUID FILLED U-CLAMP PANEL MOUNT**

Improved accuracy to ASME B40.1 Grade A. One piece design for toughness during installation. Glycerin filled for added durability during in application. Stainless steel case and bezel with copper alloy internals.

Dial 2 ½" (63 mm),

Case Stainless steel, glycerine filled

Wetted Parts Copper alloy

Bezel Stainless steel, fixed Polycarbonate Lens **Pointer** Black aluminum

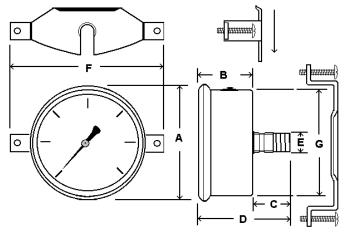
Connection Center back mount with u-clamp

2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)2-1-2% of span ASME B40.1 Grade A Accuracy Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
2 ½"	ln.	2.65"	1.21"	0.91"	2.12"	1/4"	3.84"	2.44"
<b>Z</b> /2	mm	68	31	23	54	NPT	98	61



- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 180
- Anti-Vibration Movement, see page 113
- Dry, Fillable Case
- Special Connection Size
- Max/Min Pointer, see page 126

Dial Size	Est. Unit Weight	Box Qty
2 1/2"	0.55 lbs (0.26 kg)	60

### PRO-204L LIQUID FILLED FRONT FLANGE PANEL MOUNT



Improved accuracy to ASME B40.1 Grade A. One piece design for toughness during installation. Glycerin filled for added durability during in application. Stainless steel case and bezel with copper alloy internals.

Dial 2 ½" (63 mm)

Case Stainless steel, glycerine filled

**Wetted Parts** Copper alloy

Bezel Stainless steel, fixed Polycarbonate Lens **Pointer** Black aluminum

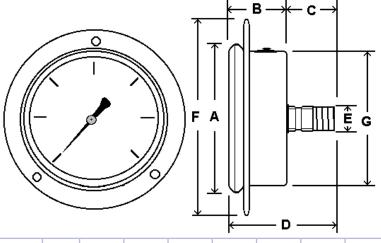
Connection Center back mount with front flange

2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)2-1-2% of span ASME B40.1 Grade A **Accuracy** Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
2 ½"	In.	2.65"	1.21"	0.91"	2.12"	1/4"	3.46"	2.44"
Z /2	mm	68	31	23	54	NPT	88	61

For complete flange dimensions, see page 127.



- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 180
- Anti-Vibration Movement, see page 113
- Dry, Fillable Case
- Special Connection Size
- Max/Min Pointer, see page 126

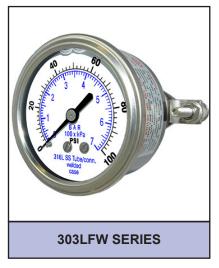
Dial Size	Est. Unit Weight	Box Qty		
2 ½"	0.55 lbs (0.26 kg)	60		



### **300 SERIES ALL STAINLESS** LIQUID FILLED GAUGE

Heavy duty, all stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals









	S	TANDARD	DIAL	CONFIGUI	RATIONS F	OR 300 SER	RIES	- 2 ½" DIAL	S
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Range	ı
30/0"hg Vac	5" hg	0.5" hg		0/60 psi	10 psi	1 psi		0/2000 psi	
30/0/15 psi	10" hg/5 psi	1" hg/.5 psi		0/100 psi	20 psi	2 psi		0/3000 psi	
30/0/30 psi	10" hg/5psi	1" hg/.5 psi		0/160 psi	20 psi	2 psi		0/4000 psi	
30/0/60 psi	10" hg/10psi	2" hg/1 psi		0/200 psi	40 psi	5 psi		0/5000 psi	
30/0/100 psi	30" hg/20psi	5" hg/2 psi		0/300 psi	50 psi	5 psi		0/6000 psi	
30/0/150 psi	30" hg/20psi	5" hg/2 psi		0/400 psi	50 psi	5 psi		0/10,000 psi	
30/0/300 psi	30" hg/50psi	10" hg/10psi		0/600 psi	100 psi	10 psi		0/15,000 psi	
0/15 psi	2 psi	0.2 psi		0/1000 psi	200 psi	10 psi		0/20,000 psi	
0/30 psi	5 psi	0.5 psi		0/1500 psi	200 psi	20 psi	subje	: Because of cont	ut n

Dial Range	Figure Intervals	Graduation Intervals
0/60 psi	10 psi	1 psi
0/100 psi	20 psi	2 psi
0/160 psi	20 psi	2 psi
0/200 psi	40 psi	5 psi
0/300 psi	50 psi	5 psi
0/400 psi	50 psi	5 psi
0/600 psi	100 psi	10 psi
0/1000 psi	200 psi	10 psi
0/1500 psi	200 psi	20 psi

Dial Range	Figure Intervals	Graduation Intervals
0/2000 psi	400 psi	50 psi
0/3000 psi	500 psi	50 psi
0/4000 psi	800 psi	100 psi
0/5000 psi	1000 psi	100 psi
0/6000 psi	1000 psi	100 psi
0/10,000 psi	2000 psi	200 psi
0/15,000 psi	2000 psi	200 psi
0/20,000 psi	4000 psi	400 psi

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### **301LFW ALL STAINLESS LOWER MOUNT**



Heavy duty, all stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm),

4" (100 mm) See page 37, 6" (150 mm) -

See 6001 page 53

Stainless steel, glycerine filled (available dry) Case

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel Stainless steel, fixed Bezel Lens Polycarbonate **Pointer** Black aluminum Connection Lower mount 1 1/2" dial = 1/8" NPT

2" dial = 1/8" or 1/4" NPT 2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)

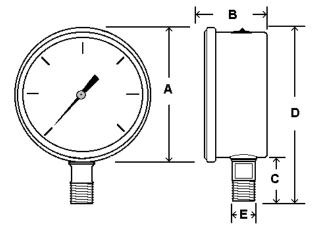
3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B Accuracy

2-1-2% of span 2 1/2" ASME B40.1 Grade A

**Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
1 ½"	ln.	1.84"	1.03"	0.73"	2.32"	1/8"
I /2	mm	47	26	19	59	NPT
2"	ln.	2.25"	1.15"	0.91"	2.93"	½"or
2	mm	57	30	23	75	1/4" NPT
2 ½"	ln.	2.70"	1.39"	1"	3.61"	1/4"
Z /2	mm	69	35	25	92	NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Single Scale
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit **Box Qty** Weight 1 1/2" 0.20 lbs 100 (0.10 kg)0.40 lbs 2" 100 (0.18 kg)0.55 lbs 2 ½" 90 (0.24 kg)



# 302LFW ALL STAINLESS CENTER BACK MOUNT

Heavy duty, all stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

#### **SPECIFICATIONS**

**Dial** 1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm),

4" (100 mm) - See 312D page 40 6" (150 mm) - See 6002 page 54

Case Stainless steel, glycerine filled (available dry)

Welded case-to-stem connection

Wetted Parts
Bezel
Stainless steel, fixed
Lens
Polycarbonate
Pointer
Black aluminum
Connection
Center back mount
1 ½" dial = ½" NPT

2" dial = 1/8" or 1/4" NPT 2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)

**Accuracy** 3-2-3% of span 1 ½" & 2" ASME B40.1 Grade B

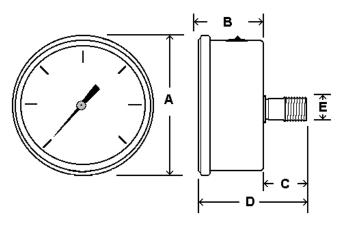
2-1-2% of span 2  $\frac{1}{2}$ " ASME B40.1 Grade A

1% of span 4" ASME B40.1 Grade 1A

**Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е
1 ½"	ln.	1.83"	1.01"	0.89"	1.90"	1/8"
1 /2	mm	46	26	23	48	NPT
2"	ln.	2.25"	1.17"	1.00"	2.17"	1⁄8" or
	mm	57	30	25	55	1/4"
2 ½"	ln.	2.71"	1.40"	1.31"	2.71"	1/4"
	mm	69	36	33	69	NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Single Scale
- Max/Min Pointer, see page 120

_	APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES				
	Dial Size	Est. Unit Weight	Box Qty		
	1 ½"	0.20 lbs (0.10 kg)	100		
	2"	0.40 lbs (0.18 kg)	100		
	2 ½"	0.60 lbs	50		

### **303LFW ALL STAINLESS** U-CLAMP PANEL MOUNT



Heavy duty, all stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

#### **SPECIFICATIONS**

1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm), Dial

4" (100 mm) - See 313D page 41

Stainless steel, glycerine filled (available dry) Case

Welded case-to-stem connection

316 stainless steel **Wetted Parts** Bezel Stainless steel, fixed Lens Polycarbonate **Pointer** Black aluminum

Connection Center back mount with u-clamp

> 1 1/2" dial = 1/8" NPT 2" dial = 1/8" or 1/4" NPT 2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)

3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B **Accuracy** 

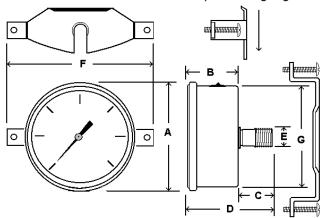
2-1-2% of span 2 1/2" ASME B40.1 Grade A

**Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

**Process Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
1 ½"	ln.	1.83"	1.01"	0.89"	1.90"	½" NPT	2.75"	1.61"
	mm	46	26	23	48		70	41
2"	ln.	2.25"	1.17"	1.00"	2.17"	½" or	3.13"	2.03"
	mm	57	30	25	55		80	52
2 ½"	ln.	2.71"	1.40"	1.31"	2.71"	½" NPT	3.84"	2.49"
	mm	69	36	33	69		98	63



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Single Scale
- Max/Min Pointer, see page 120

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES				
Dial Size	Est. Unit Weight	Box Qty		
1 ½"	0.30 lbs (0.12 kg)	100		
2"	0.45 lbs (0.20 kg)	100		
2 ½"	0.70 lbs (0.32 kg)	50		



### **304LFW ALL STAINLESS** FRONT FLANGE PANEL MOUNT

Heavy duty, all stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

### **SPECIFICATIONS**

1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm), Dial

> 4" (100 mm) - See 314D page 42 6" (150 mm) - See 6004 page 55

Stainless steel, glycerine filled (available dry) Case

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel Bezel Stainless steel, fixed Lens Polycarbonate **Pointer** Black aluminum

Center back mount with front flange Connection

> 1 ½" dial = ½" NPT 2" dial = 1/8" or 1/4" NPT 2 1/2" dial = 1/4" NPT

Scale Standard: psi/BAR (x 100 = kPa)

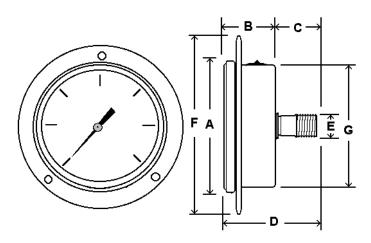
3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B Accuracy

2-1-2% of span 2 1/2" ASME B40.1 Grade A

**Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
1 ½"	ln.	1.83"	1.01"	0.89"	1.90"	1/8"	2.46"	1.61"
1 1/2	mm	46	26	23	48	NPT	63	41
2"	ln.	2.25"	1.17"	1.00"	2.17"	1⁄8" or	2.81"	2.03"
	mm	57	30	25	55	1/4"	71	52
2 ½"	ln.	2.71"	1.40"	1.31"	2.71"	1/4"	3.46"	2.49"
Z /2	mm	69	36	33	69	NPT	88	63

For complete flange dimensions, see page 123.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see p. 107
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Single Scale
- Max/Min Pointer, see p. 118

### \*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit **Box Qty** Weight 1 1/2" 0.25 lbs upon request (0.10 kg)2" 0.40 lbs upon request (0.18 kg)0.65 lbs 2 1/2" upon request (0.30 kg)

# 301L 4" ALL STAINLESS **LOWER MOUNT**



Heavy duty, all stainless steel gauge

Stainless steel case and bezel, 316 stainless steel internals

Glycerine filled for added durability in applications where vibration or pulsation is present

### **SPECIFICATIONS**

Dial 4" (100 mm)

Stainless steel, glycerine filled (available dry) Case

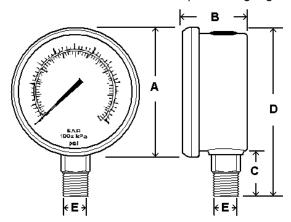
**Wetted Parts** 316 stainless steel Bezel Stainless steel, fixed Lens Polycarbonate **Pointer** Black aluminum Connection

Lower mount 4" dial = 1/4" or 1/2" NPT

Standard: psi/BAR (x 100 = kPa) **Scale** 2-1-2% of span ASME B40.1 Grade A **Accuracy** Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е
A"	ln.	4.30"	1.74"	1.19"	5.26"	1/4" or
4"	mm	109	44	30	134	½" NPT

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Single Scale
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Weight	Box Qty
4"	1.55 lbs (0.70 kg)	30

### STANDARD DIAL CONFIGURATIONS FOR 300 SERIES - 4" DIALS

Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg
30/0/15 psi	10" hg/5 psi	1" hg/0.5 psi
30/0/30 psi	10" hg/5psi	1" hg/0.5 psi
30/0/60 psi	30" hg/10psi	2" hg/1 psi
30/0/100 psi	30" hg/20psi	5" hg/2 psi
30/0/150 psi	30" hg/30psi	5" hg/2 psi
30/0/300 psi	30" hg/50psi	10" hg/5psi
0/15 psi	2 psi	0.1 psi

Dial Range	Figure Intervals	Graduation Intervals
0/30 psi	5 psi	0.5 psi
0/60 psi	10 psi	0.5 psi
0/100 psi	20 psi	2 psi
0/160 psi	20 psi	2 psi
0/200 psi	40 psi	5 psi
0/300 psi	50 psi	5 psi
0/400 psi	50 psi	5 psi
0/600 psi	100 psi	10 psi

Dial Range	Figure Intervals	Graduation Intervals
0/1000 psi	200 psi	20 psi
0/1500 psi	200 psi	20 psi
0/2000 psi	400 psi	40 psi
0/3000 psi	500 psi	50 psi
0/5000 psi	1000 psi	100 psi
0/10,000 psi	2000 psi	200 psi
0/15,000 psi	2000 psi	200 psi

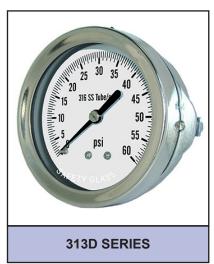


### **310 SERIES ALL STAINLESS**

Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable









		STANI
Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg
30/0/15 psi	10" hg/5 psi	1" hg/0.5 psi
30/0/30 psi	10" hg/5 psi	1" hg/0.5 psi
30/0/60 psi	10" hg/10psi	2" hg/1 psi
30/0/100 psi	30" hg/10psi	2" hg/1 psi
30/0/150 psi	30" hg/20psi	10" hg/2 psi
30/0/300 psi	30" hg/50psi	10" hg/2 psi
0/15 psi	2 psi	0.1 psi
0/30 psi	3 psi	0.2 psi

RD	DIAL COI	NFIGURATIO	ONS FOR 3	10 S	ERIES		
	Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals
	0/60 psi	5 psi	0.5 psi		0/1000 psi	100 psi	10 psi
	0/100 psi	10 psi	1 psi		0/1500 psi	200 psi	10 psi
	0/160 psi	20 psi	2 psi		0/2000 psi	200 psi	20 psi
	0/200 psi	20 psi	2 psi		0/3000 psi	500 psi	20 psi
	0/300 psi	30 psi	2 psi		0/5000 psi	500 psi	50 psi
	0/400 psi	50 psi	5 psi		0/6000 psi	500 psi	50 psi
	0/600 psi	50 psi	5 psi		0/10,000 psi	1000 psi	100 psi
	0/800 psi	100 psi	10 psi		0/15,000 psi	3000 psi	100 psi

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### 311D ALL STAINLESS STEEL LOWER MOUNT



Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

### **SPECIFICATIONS**

2 1/2" (63 mm), 4" (100 mm) - See 4001 page 50 Dial

6" (150 mm) - See 6001 page 53

4 ½", 8" and 10" available special order

Stainless steel, dry yet fillable Case

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

Removable, stainless steel Bezel Lens Laminated safety glass **Pointer** Adjustable, black aluminum

Connection Lower mount

2 1/2" dial = 1/4" NPT

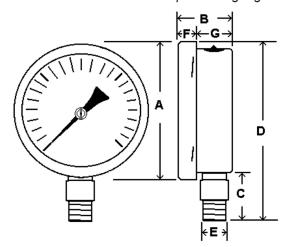
Scale Standard: single scale psi

1% of span ASME B40.1 Grade 1A **Accuracy** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F **Ambient Temp** 

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
2 ½"	ln.	2.75"	1.30"	0.91"	3.50"	1/4"	0.51"	0.79"
2 /2	mm	70	33	23	89	NPT	13	20



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Plastic Lens
- Dual Scale
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit **Box Qty** Weight 2 1/2" 0.35 lbs 50 (0.16 kg)



### 312D ALL STAINLESS STEEL LOWER BACK MOUNT

Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

#### **SPECIFICATIONS**

Case

Dial 2 ½" (63 mm), 4" (100 mm)

6" (150 mm) - See 6002 page 54 Stainless steel, dry yet fillable

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

Bezel Removable, stainless steel Lens Laminated safety glass Pointer Adjustable, black aluminum

Connection Lower back mount 2 ½" dial = ¼" NPT

 $4" \text{ dial} = \frac{1}{4}" \text{ or } \frac{1}{2}" \text{ NPT}$ 

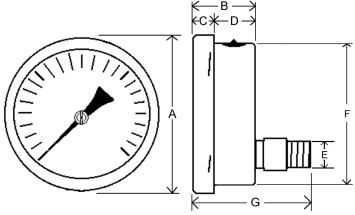
Scale Standard: single scale psi

1% of span ASME B40.1 Grade 1A Accuracy

**Ambient Temp**  $Dry = -30^{\circ} F \text{ to } 180^{\circ} F$ 

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
2 ½"	ln.		1.26"	0.41"	0.85"	1⁄4" NPT	2.47"	2.24"
2 1/2	mm	69	32	10	22	74 INP I	63	57
4"	ln.	4.00"	1.93"	0.71"	1.22"	1/4" or 1/2"	3.87"	3.39"
4"	mm	100	49	18	31	NPT	98	86



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Plastic Lens
- Dual Scale
- Max/Min Pointer, see page 120

Dial Size	Est. Unit Weight	Box Qty
2 ½"	0.35 lbs (0.16 kg)	50
4"	1.10 lbs (0.50 kg)	8

<sup>\*</sup>Lead times/minimums may apply

## 313D ALL STAINLESS **CLAMP-RING PANEL MOUNT**



Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

#### **SPECIFICATIONS**

Dial 2 ½" (63 mm), 4" (100 mm) Case Stainless steel, dry yet fillable

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

Bezel Removable, stainless steel Lens Laminated safety glass **Pointer** Adjustable, black aluminum

Connection Lower back mount with clamp-ring

2 1/2" dial = 1/4" NPT

 $4" \text{ dial} = \frac{1}{4}" \text{ or } \frac{1}{2}" \text{ NPT}$ 

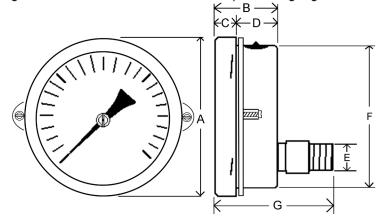
Scale Standard: single scale psi

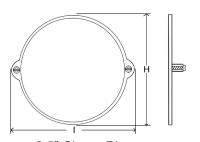
**Accuracy** 1% of span ASME B40.1 Grade 1A

**Ambient Temp** Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

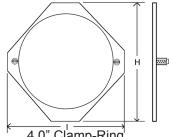
Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.









4.0" Clamp-Ring



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Plastic Lens
- Dual Scale

4"

Max/Min Pointer, see page 120

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit **Box Qty** Weight 2 1/2" 0.60 lbs 50 (0.26 kg)

1.20 lbs

(0.54 kg)

Dial	Unit	Α	В	С	D	Е	F	G	Н	I
0.1/"	ln.	2.71"	1.26"	0.41"	0.85"	½" NPT	2.47"	2.24"	2.65"	3.23"
2 ½"	mm	69	32	10	22		63	57	67	82
4"	ln.	4.00"	1.93"	0.71"	1.22"	1⁄4" or	3.87"	3.39"	5.13"	5.13"
	mm	100	49	18	31	1/2"	98	86	130	130

8

Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

#### **SPECIFICATIONS**

Dial 2 ½" (63 mm), 4" (100 mm), 6" (150 mm) - See 6004 page 55

Case Stainless steel, dry yet fillable

Welded case-to-stem connection

Wetted Parts 316 stainless steel

BezelRemovable, stainless steelLensLaminated safety glassPointerAdjustable, black aluminumConnectionLower back mount with front flange

2 ½" dial = ¼" NPT 4" dial = ¼" or ½" NPT

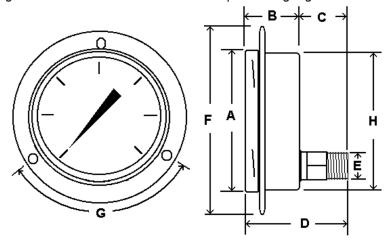
Scale Standard: single scale psi

Accuracy 1% of span ASME B40.1 Grade 1A

**Ambient Temp** Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	Н
2 ½"	ln.				2.23"	½" NPT	3.45"	2.45"
	mm	69	31	25	57		88	62
4"	ln.	4.03"	1.97"	1.48"	3.45"	1⁄4" or	5.22"	3.86"
	mm	102	50	38	88	1/2"	133	98

G Dimensions	(Screw Holes)
--------------	---------------

Dial	Arc	Unit	Distance from ctr	Size (oblong)
2 ½"	120°	ln.	1.58"	0.18" x 0.25"
		mm	40	4.5 x 6.5
4"	120°	ln.	2.25"	0.18" (round)
		mm	57.3	4.5 (round)

For complete flange dimensions, see page 121.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Plastic Lens
- Dual Scale
- Max/Min Pointer, see page 120

Dial Size	Est. Unit Weight	Box Qty
2 ½"	0.60 lbs (0.26 kg)	50
4"	1.20 lbs (0.54 kg)	8

<sup>\*</sup>Lead times/minimums may apply

### S301L HEAVY DUTY 4" ALL STAINLESS LOWER MOUNT



Heavy duty, all stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

### **SPECIFICATIONS**

Dial 4" (100 mm)

Stainless steel, glycerine filled Case

**Wetted Parts** 316 stainless steel Bezel Stainless steel, fixed Lens Polycarbonate **Pointer** Black aluminum Connection Lower mount

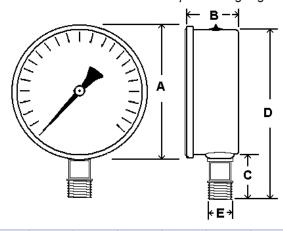
 $4" \text{ dial} = \frac{1}{4}" \text{ or } \frac{1}{2}" \text{ NPT}$ 

Standard: single scale psi Scale

**Accuracy** 1% of span ASME B40.1 Grade 1A Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
4"	ln.	4.07"	1.94"	1.46"	5.32"	1⁄4" or
	mm	103	49	37	135	½" NPT

STANDARD DIAL CONFIGURATIONS
------------------------------

Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	3" hg	0.2" hg
0/15 psi	1 psi	0.1 psi
0/30 psi	3 psi	0.2 psi
0/60 psi	5 psi	0.5 psi
0/100 psi	10 psi	1 psi
0/160 psi	20 psi	2 psi
0/200 psi	20 psi	2 psi
0/300 psi	30 psi	2 psi
0/400 psi	50 psi	5 psi

Dial Range	Figure Intervals	Graduation Intervals
0/600 psi	50 psi	5 psi
0/1000 psi	100 psi	10 psi
0/1500 psi	200 psi	10 psi
0/2000 psi	200 psi	20 psi
0/3000 psi	500 psi	20 psi
0/5000 psi	500 psi	50 psi
0/6000 psi	500 psi	50 psi
0/10,000 psi	1000 psi	100 psi
0/15,000 psi	3,000 psi	100 psi



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 174
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Weight	Box Qty
4"	1.55 lbs (0.70 kg)	20

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

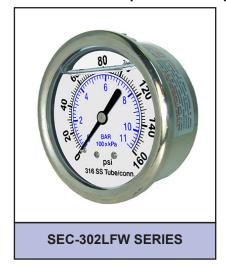
<sup>\*</sup>Lead times/minimums may apply



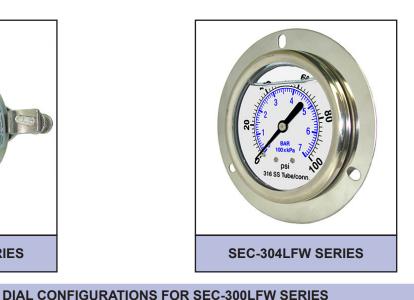
### **SEC-300LFW SERIES ALL STAINLESS STEEL**

All stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present









		STANDARD
Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg
30/0/30 psi	10" hg/10psi	1" hg/1 psi
30/0/150 psi	10" hg/30psi	1" hg/2 psi
0/15 psi	3 psi	0.2 psi
0/30 psi	5 psi	0.5 psi
0/60 psi	10 psi	1 psi

Dial Range	Figure Intervals	Graduation Intervals
0/100 psi	20 psi	2 psi
0/160 psi	20 psi	2 psi
0/200 psi	40 psi	5 psi
0/300 psi	50 psi	5 psi
0/400 psi	100 psi	10 psi
0/600 psi	100 psi	10 psi

Dial Range	Figure Intervals	Graduation Intervals
0/1000 psi	200 psi	10 psi
0/2000 psi	400 psi	50 psi
0/3000 psi	500 psi	50 psi
0/5000 psi	1000 psi	100 psi
0/10,000 psi	2000 psi	200 psi

NOTE: Because of continuing improvements, increments/specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### **SEC-301LFW ALL STAINLESS LOWER MOUNT**



All stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, glycerine filled Case

Welded case-to-stem connection

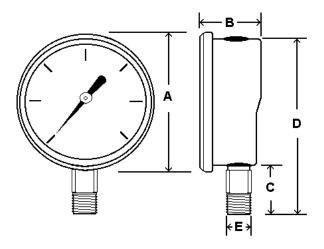
**Wetted Parts** 316 stainless steel Bezel Stainless steel, fixed Lens Polycarbonate Black aluminum **Pointer** Connection Lower mount

2 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa)Scale 3-2-3% of span ASME B40.1 Grade B **Accuracy** Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е
2 ½"	ln.	2.80"	1.37"	0.93"	3.40"	1/4"
2 /2	mm	71	35	24	86	NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Dry, Fillable Case
- Glass Lens
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

	APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES						
Dial Size	Est. Unit Weight	Box Qty					
2 ½"	0.50 lbs	50					



### **SEC-302LFW ALL STAINLESS CENTER BACK MOUNT**

All stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

#### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, glycerine filled Case Welded case-to-stem connection

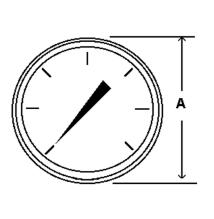
**Wetted Parts** 316 stainless steel Bezel Stainless steel, fixed

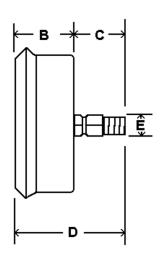
Lens Polycarbonate Pointer Black aluminum Connection Center back mount 2 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa) Scale 3-2-3% of span ASME B40.1 Grade B Accuracy Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.





Dial	Unit	Α	В	С	D	Е
2 ½"	ln.	2.67"	1.17"	1.08"	2.19"	1/4"
<b>∠</b> /2	mm	68	30	28	56	NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Dry, Fillable Case
- Glass Lens
- Special Connection Size
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Weight	Box Qty			
2 ½"	0.45 lbs (0.22 kg)	50			

### **SEC-303LFW ALL STAINLESS** U-CLAMP PANEL MOUNT



All stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Case Stainless steel, glycerine filled

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel Bezel Stainless steel, fixed Lens Polycarbonate **Pointer** Black aluminum

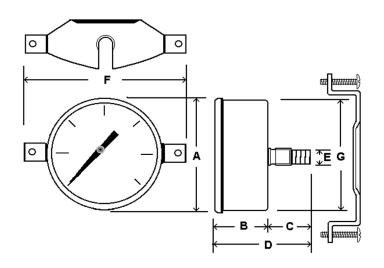
Connection Center back mount with u-clamp

2 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa)Scale 3-2-3% of span ASME B40.1 Grade B **Accuracy** Glycerine Filled = 30° F to 160° F **Ambient Temp** 

 $Dry = -30^{\circ} F \text{ to } 180^{\circ} F$ 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F	G
2 ½"	ln.	2.67"	1.17"	1.08"	2.19"	1/4"	3.84"	2.45"
<b>Z</b> /2	mm	68	30	28	56	NPT	98	62



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Dry, Fillable Case
- Glass Lens
- Special Connection Size
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 ½"	0.55 lbs (0.26 kg)	50



### **SEC-304LFW ALL STAINLESS** FRONT FLANGE PANEL MOUNT

All stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

#### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, glycerine filled Case

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel Bezel Stainless steel, fixed Lens Polycarbonate Pointer Black aluminum

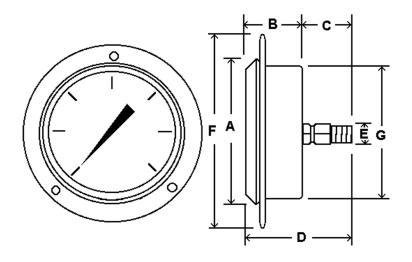
Connection Center back mount with front flange

2 1/2" dial = 1/4" NPT

Standard: psi/BAR (x 100 = kPa) Scale 3-2-3% of span ASME B40.1 Grade B Accuracy Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
2 ½"	ln.	2.67"	1.17"	1.08"	2.19"	1/4"	3.46"	2.45"
Z /2	mm	68	30	28	56	NPT	88	62

For complete flange dimensions, see page 121.



### **AVAILABLE OPTIONS\***

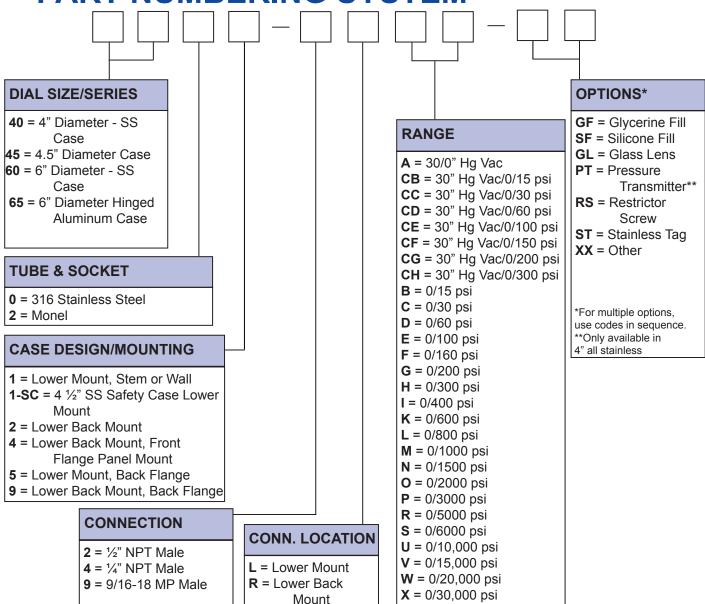
- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Anti-Vibration Movement, see page 107
- Dry, Fillable Case
- Glass Lens
- Special Connection Size
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

APPROXIMATE BOX QUANTI	TE SHIPPING V	WEIGHTS/
Dial Size	Est. Unit Weight	Box Qty
2 ½"	0.50 lbs (0.24 kg)	50

### **HEAVY DUTY GAUGE** PART NUMBERING SYSTEM





### EXAMPLE: "4501-4LE-GF"

45 = 4 1/2" Diameter Dial Size

0 = 316 Stainless Steel Tube & Socket

1 = Lower Mount

**4** = 1/4" NPT male

L = Lower Mount

E = 0/100 psi

**GF** = Glycerine Fill

### **SPECIFICATIONS**

Dial 4" (100 mm)

Stainless steel, dry yet fillable Case

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

Movement With overload/underload stops Bezel Removable, stainless steel Laminated safety glass Lens **Pointer** Adjustable, black aluminum

Connection Lower mount 1/4" or 1/2" NPT

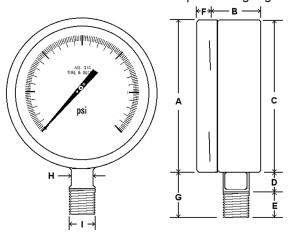
Scale Standard: single scale psi

Accuracy 1% of span ASME B40.1 Grade 1A

**Ambient Temp** Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G	Н	I (=NPT)
<b>4</b> "	In.	4.02"	1.93"	3.87"	0.70"	0.74"	0.66"	1.38"	0.68"	1/" or 1/"
4	mm	102	49	99	18	19	17	35	17	1/4" or 1/2"



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- High Pressure Connection 9/16" HPM
  - See 4001-9/16 page 51
- Special Connection Size
- Knife-edge pointer
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120
- 0.5% Accuracy Available
- \*Lead times/minimums may apply

### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Wt.	Box Qty
4"	1 lb/0.48 kg	15

		STANE	ARI	D DIAL CON	IFIGURATIO	ONS FOR 40	01 S	ERIES
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Rar
30/0"hg Vac	3" hg	0.2" hg		0/60 psi	5 psi	0.5 psi		0/2000
30/0/15 psi	5" hg/3 psi	0.5"hg/.2 psi		0/100 psi	10 psi	1 psi		0/3000
30/0/30 psi	10" hg/5psi	1" hg/.5 psi		0/160 psi	20 psi	2 psi		0/5000
30/0/60 psi	10" hg/5psi	1" hg/.5 psi		0/200 psi	20 psi	2 psi		0/6000
30/0/100 psi	30" hg/10psi	2" hg/1 psi		0/300 psi	30 psi	2 psi		0/10,000
30/0/150 psi	30" hg/20psi	5" hg/2 psi		0/400 psi	50 psi	5 psi		0/15,000
30/0/300 psi	30" hg/50psi	5" hg/2 psi		0/600 psi	50 psi	5 psi		0/20,000
0/15 psi	1 psi	0.1 psi		0/1000 psi	100 psi	10 psi		E: Because o
0/30 psi	3 psi	0.2 psi		0/1500 psi	200 psi	10 psi		configuration

Dial Range	Figure Intervals	Graduation Intervals
0/60 psi	5 psi	0.5 psi
0/100 psi	10 psi	1 psi
0/160 psi	20 psi	2 psi
0/200 psi	20 psi	2 psi
0/300 psi	30 psi	2 psi
0/400 psi	50 psi	5 psi
0/600 psi	50 psi	5 psi
0/1000 psi	100 psi	10 psi
0/1500 psi	200 psi	10 psi

_			
	Dial Range	Figure Intervals	Graduation Intervals
	0/2000 psi	200 psi	20 psi
	0/3000 psi	500 psi	20 psi
	0/5000 psi	500 psi	50 psi
	0/6000 psi	500 psi	50 psi
	0/10,000 psi	1000 psi	100 psi
	0/15,000 psi	3000 psi	100 psi
	0/20,000 psi	2000 psi	200 psi

NOTE: Because of continuing improvements, specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### **4001 9/16" HIGH PRESSURE** CONNECTION



Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable 9/16" HPM connection, Ranges 10,000 psi, 15,000 psi, 20,000 psi, 30,000 psi

### **SPECIFICATIONS**

Dial 4" (100 mm)

Case Stainless steel, dry yet fillable

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

Movement With overload/underload stops Bezel Removable, stainless steel, Laminated safety glass Lens Adjustable, black aluminum **Pointer** 

Connection Lower mount

9/16-18" High Pressure Male

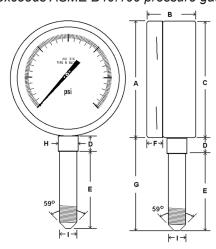
Scale Standard: single scale psi

**Accuracy** 1% of span ASME B40.1 Grade 1A

**Ambient Temp** Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F	G	Н	Thread
A"	ln.	4.00"	1.97"	3.87"	0.81"	2.45"	0.66"	3.26"	0.68"	9/16-18
4	mm	100	50	99	21	62	17	83	17	MP Male

STANDARD DIAL CONFIGURATIONS FOR 4001 9/16" SERIES							
Part Number	Dial Range	Figure Intervals	Graduation Intervals				
4001-9LU	0/10,000 psi	1,000 psi	100 psi				
4001-9LV	0/15,000 psi	3,000 psi	100 psi				
4001-9LW	0/20,000 psi	2,000 psi	200 psi				
4001-9LX	0/30,000 psi	6,000 psi	200 psi				

NOTE: Because of continuing improvements, specifications are subject to change without notice. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Cleaned for Oxygen Service (dry only)
- Knife-edge pointer
- Protective Rubber Cover, see page 119
- With Gland/Collar
- Max/Min Pointer, see page 120
- 0.5% Accuracy Available

### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Wt.	Box Qty
4"	1.20 lbs (0.54 kg)	15





COLLAR	GLAND
Part Number	Description
60-2H9	Collar
60-2HM9	Gland

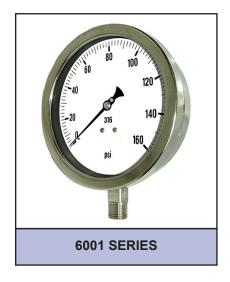
**SOLD SEPARATELY** 

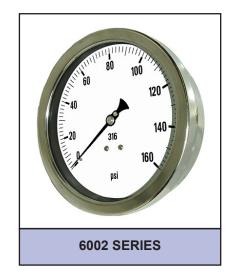
<sup>\*</sup>Lead times/minimums may apply

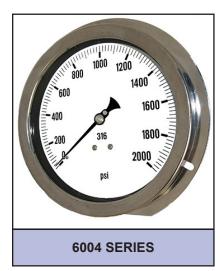


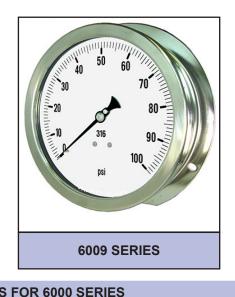
# 6000 SERIES 6" HEAVY DUTY **ALL STAINLESS STEEL**

Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable









		STANE	ARI	DIAL CON	IFIGURATIO	ONS FOR 60
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	3" hg	0.2" hg		0/60 psi	5 psi	0.5 psi
30/0/30 psi	10" hg/5 psi	1" hg/.5 psi		0/100 psi	10 psi	1 psi
30/0/60 psi	10" hg/5 psi	1" hg/.5 psi		0/160 psi	20 psi	2 psi
30/0/100 psi	30" hg/10psi	2" hg/1 psi		0/200 psi	20 psi	2 psi
30/0/150 psi	30" hg/20psi	5" hg/2 psi		0/300 psi	30 psi	2 psi
30/0/300 psi	30" hg/50psi	5" hg/2 psi		0/400 psi	50 psi	5 psi
0/15 psi	1 psi	0.1 psi		0/600 psi	50 psi	5 psi
0/30 psi	3 psi	0.2 psi		0/1000 psi	100 psi	10 psi

Dial Range	Figure Intervals	Graduation Intervals
0/1500 psi	200 psi	10 psi
0/2000 psi	200 psi	20 psi
0/3000 psi	500 psi	20 psi
0/5000 psi	500 psi	50 psi
0/6000 psi	500 psi	50 psi
0/10,000 psi	1000 psi	100 psi
0/15,000 psi	3000 psi	100 psi

NOTE: Because of continuing improvements, increments are subject to change. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### 6001 6" ALL STAINLESS **LOWER MOUNT**



Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

### **SPECIFICATIONS**

Dial 6" (150 mm)

Case Stainless steel, dry yet fillable

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

With overload/underload stops Movement Bezel Removable, stainless steel Laminated safety glass Lens

Micro adjustable, black aluminum **Pointer** 

Connection Lower mount 1/4" or 1/2" NPT

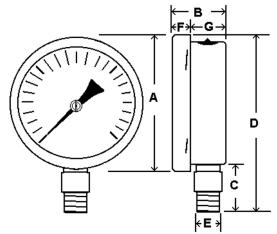
Scale Standard: single scale psi

Accuracy 1% of span ASME B40.1 Grade 1A

**Ambient Temp** Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
6"	ln.	6.75"	2.05"	1.50"	8.41"	1⁄4" or	0.73"	1.27"
O	mm	172	52	38	214	½" NPT	18	32



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Polycarbonate Lens

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit Wt. **Box Qty** 6" 2.15 lbs 10

(0.98 kg)



# 6002 6" ALL STAINLESS LOWER BACK MOUNT

Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

#### **SPECIFICATIONS**

**Dial** 6" (150 mm)

CaseStainless steel, dry yet fillable

Welded case-to-stem connection

Wetted Parts 316 stainless steel

MovementWith overload/underload stopsBezelRemovable, stainless steelLensLaminated safety glass

Pointer Micro adjustable, black aluminum

**Connection** Lower back mount

1/4" NPT

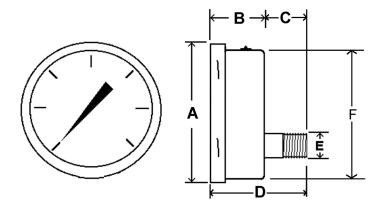
Scale Standard: single scale psi

Accuracy 1% of span ASME B40.1 Grade 1A

Ambient Temp Dry = -30° F to 180° F

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F
6"	ln.	6.76"	2.02"	1.35"	3.37"	1⁄4" or	6.24"
6"	mm	172	52	34	86	1/2"	158



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Polycarbonate Lens
- ½" NPT or Custom Connections

<sup>\*</sup>Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
6"	2.20 lbs (1.00 kg)	upon request			

### 6004 6"ALL STAINLESS FRONT FLANGE PANEL MOUNT



Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

### **SPECIFICATIONS**

Dial 6" (150 mm)

Case Stainless steel, dry yet fillable

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

Movement With overload/underload stops Bezel Removable, stainless steel Lens Laminated safety glass

Micro adjustable, black aluminum **Pointer** Lower back mount with front flange Connection

1/4" NPT

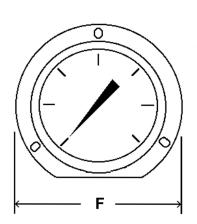
Scale Standard: single scale psi

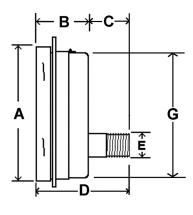
Accuracy 1% of span ASME B40.1 Grade 1A

 $Dry = -30^{\circ} F \text{ to } 180^{\circ} F$ **Ambient Temp** 

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.





Dial	Unit	Α	В	С	D	Е	F	G
6"	ln.	6.76"	2.02"	1.35"	3.37"	1⁄4" or 1⁄2"	7.65"	6.24"
0	mm	172	52	34	86	NPT	194	158

For complete flange dimensions, see page 121.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Polycarbonate Lens
- ½" NPT or Custom Connections

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
6"	2.30 lbs (1.06 kg)	5



### 6009 6" ALL STAINLESS **BACK FLANGE**

Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

#### **SPECIFICATIONS**

Dial 6" (150 mm)

Case Stainless steel, dry yet fillable

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

Movement With overload/underload stops Bezel Removable, stainless steel Lens Laminated safety glass

Micro adjustable, black aluminum **Pointer** Lower back mount with back flange Connection

1/4" NPT standard

½" NPT available (limited ranges)

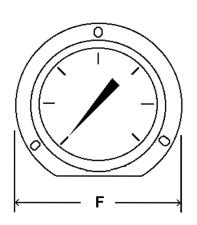
Scale Standard: single scale psi

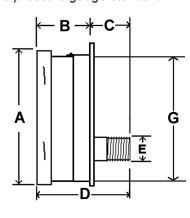
1% of span ASME B40.1 Grade 1A Accuracy

4 Ambient Temp Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.





Dial	Unit	Α	В	С	D	E	F	G
6"	In.	6.76"	2.02"	1.50"	3.54"	1⁄4" or 1⁄2"	7.63"	6.24"
U	mm	172	52	38	90	NPT	194	158

For complete flange dimensions, see page 121.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Polycarbonate Lens

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
6"	4.65 lbs (2.10 kg)	upon request

## **4500 SERIES PROCESS GAUGE**



Solid front/blow-out back safety case, liquid fillable, 316 stainless steel internals





	STANDARD DIAL CONFIGURATIONS FOR 4502/4504/6504/4501-SC											
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Range	ı			
30/0"hg Vac	5" hg	0.2" hg		0/60 psi	10 psi	0.5 psi		0/1500 psi				
30/0/30 psi	10" hg/5psi	1" hg/.5 psi		0/100 psi	10 psi	1 psi		0/2000 psi				
30/0/60 psi	10" hg/10psi	2" hg/1 psi		0/160 psi	20 psi	1 psi		0/3000 psi				
30/0/100 psi	10" hg/10psi	2" hg/1 psi		0/200 psi	20 psi	2 psi		0/5000 psi				
30/0/150 psi	30" hg/30psi	2" hg/2 psi		0/300 psi	50 psi	2 psi		0/6000 psi				
30/0/300 psi	30" hg/50psi	5" hg/5 psi		0/400 psi	50 psi	5 psi		0/10,000 psi				
0/15 psi	3 psi	0.2 psi		0/600 psi	100 psi	5 psi		0/15,000 psi				
0/30 psi	5 psi	0.2 psi		0/1000 psi	100 psi	10 psi						

Dial Range	Figure Intervals	Graduation Intervals
0/60 psi	10 psi	0.5 psi
0/100 psi	10 psi	1 psi
0/160 psi	20 psi	1 psi
0/200 psi	20 psi	2 psi
0/300 psi	50 psi	2 psi
0/400 psi	50 psi	5 psi
0/600 psi	100 psi	5 psi
0/1000 psi	100 psi	10 psi

Dial	Figure	Graduation	
Range	Intervals	Intervals	
0/1500 psi	250 psi	10 psi	
0/2000 psi	200 psi	20 psi	
0/3000 psi	500 psi	20 psi	
0/5000 psi	500 psi	50 psi	
0/6000 psi	500 psi	50 psi	
0/10,000 psi	1000 psi	100 psi	
0/15,000 psi	2500 psi	100 psi	

NOTE: Because of continuing improvements, increments and specifications are subject to change. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.



### **4504, 6504 PROCESS GAUGE** PANEL MOUNT

### Hinged ring panel mount for easy adjustment Solid front safety case design

#### **SPECIFICATIONS**

Dial 4 ½" (114 mm), 6" (150 mm)

Case Aluminum case with hinged front flange

Solid front/blow out back

**Wetted Parts** 316 stainless steel

Movement With overload/underload stops Bezel Removable, black enamel aluminum

Plastic lens for 4 1/2" Lens

Glass lens for 6"

Micro adjustable, black aluminum **Pointer** 

Lower back mount Connection

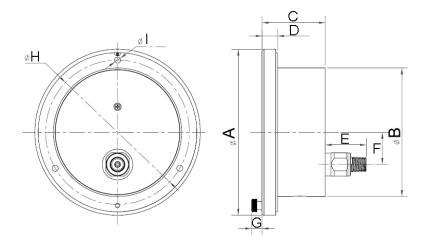
1/4" or 1/2" NPT

Scale Standard: single scale psi

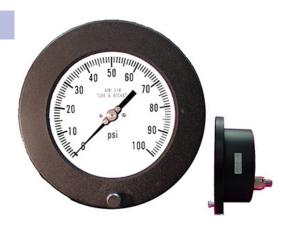
0.5% of span ASME B40.1 Grade 2A Accuracy

4 Ambient Temp Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F	G	Н	I
4 1/"	ln.	6.16"	4.77"	2.35"	0.58"	1.70"	1.20"	0.39"	5.35"	0.22"
4 ½"	mm	156.5	121.2	59.7	14.7	43.2	30.4	10	136	5.7
6"	ln.	7.56"	4.76"	2.62"	0.63"	1.40"	1.20"	0.33"	7.01"	0.19"
0	mm	192	121	66.5	16	35.6	30.4	8.5	178	4.7



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- 3/15 Receiver Gauge
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Knife-edge Pointer
- Max/Min Pointer, see page 120

Dial Size	Est. Unit Wt.	Box Qty
4 ½"	2.36 lbs/ (1.07 kg)	18
6"	3.10 lbs/ (1.40 kg)	upon request

<sup>\*</sup>Lead times/minimums may apply

### **4501-SC ALL STAINLESS PROCESS GAUGE**



Solid front stainless steel safety case, liquid fillable 316 stainless steel internals

### **SPECIFICATIONS**

Dial 4 ½" (114 mm)

Case Stainless steel case with solid front & blow out

back; Dry, liquid fillable

Welded case-to-stem connection

**Wetted Parts** 316 stainless steel

Movement With overload/underload stops Bezel Removable, stainless steel

Lens Polycarbonate

Micro adjustable, black aluminum Pointer

Lower mount Connection

1/4" or 1/2" NPT

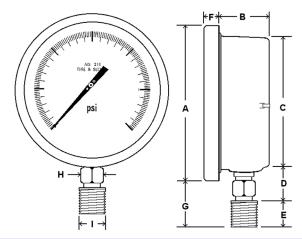
Scale Standard: single scale psi

0.5% of span ASME B40.1 Grade 2A Accuracy

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F Ambient Temp

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	A	В	С	D	F	G	Н	I
4 1/2"									1/4" or 1/2"
4 /2	mm	124	40	114	28	14	38	22	NPT



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Special Connection Size
- Laminated Safety Glass Lens
- Cleaned for Oxygen Service (dry only)
- Knife-edge Pointer
- Max/Min Pointer, see page 120
- 2 1/2" Dial Option

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
4 ½"	1.84 lbs/ (0.83 kg)	27

# 4001-PT GAUGE WITH TRANSMITTER

Heavy duty, all stainless steel gauge with welded case-to-stem connection Solid front safety case with 4-20mA output for PLC/PID and data loggers CE Approved pressure transmitter

### **SPECIFICATIONS**

### **PRESSURE GAUGE**

Dial 4" (100 mm)
Case Stainless steel

Welded case-to-stem connection

Wetted Parts 316L stainless steel

BezelRemovable, stainless steelLensLaminated safety glassPointerAdjustable, black aluminum

Connection Lower mount 1/4" or 1/2" NPT

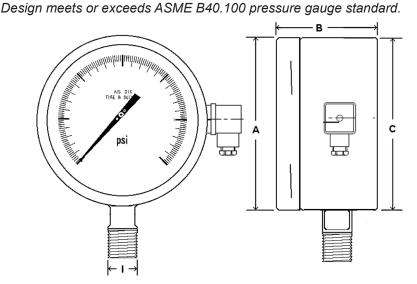
Scale Standard: single scale psi

Accuracy Gauge: 1% of span ASME B40.1 Grade 1A

Ambient Temp -10° F to 150° F

### **PRESSURE TRANSMITTER**

System 2 Wire
Supply 24 VDC
Output 4-20 mA
Accuracy 0.5% of FS
Electric Wiring DIN Connector
Response Time 50 mSec (Typical)
Sensing Element AISI 316L



Dial	Unit	Α	В	С	I (=NPT)
4"	ln.	4.37"	3.51"	3.94"	1/4" or 1/2"
4	mm	111	89	100	74 UI 72

Drawings are not to scale.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Knife-edge pointer
- Max/Min Pointer, see page 120
- Electrical Contact Version

\*Lead times/minimums may apply

	APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES						
Dial Size	Est. Unit Wt.	Box Qty					
4"	2.53 lb/1.15 kg	upon request					

# **601L FORGED BRASS** LIQUID FILLED LOWER MOUNT



Heavy duty forged brass case and socket Glycerine filled for added durability in applications where vibration or pulsation is present

### **SPECIFICATIONS**

0/200 psi

20 psi

Dial 2 ½" (63 mm)

Case Forged brass case & connection

Glycerine filled

**Wetted Parts** Copper alloy

Bezel Fixed

Lens Polycarbonate **Pointer** Black aluminum Connection Lower mount

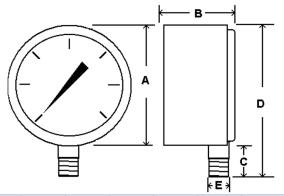
1/4" NPT

Scale Standard: single scale psi

2-1-2% of span ASME B40.1 Grade A **Accuracy Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
2 ½"	ln.	2.58"	1.49"	0.96"	3.32"	1⁄4" NPT
Z /2	mm	66	38	24	84	/4 INF I

	15 000	
10 5 5 A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	20	The second second
		BIR
	psi	

#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Special Connection Size
- Dry, fillable case
- Protective Rubber Cover, see page 119
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/** STANDARD DIAL CONFIGURATIONS **BOX QUANTITIES**

Dial Size	Est. Unit Weight	Box Qty
2 ½"	0.75 lbs (0.34 kg)	50

	CIANDARD BIAE CONTINUING						
Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals		
30/0"hg Vac	5" hg	0.5" hg	0/300 psi	50 psi	5 psi		
30/0/30 psi	10" hg/5psi	1" hg/0.5 psi	0/400 psi	50 psi	5 psi		
30/0/100 psi	30" hg/10psi	2" hg/1 psi	0/600 psi	50 psi	5 psi		
30/0/150 psi	30" hg/20psi	2" hg/2 psi	0/1000 psi	100 psi	10 psi		
30/0/300 psi	30" hg/50psi	10" hg/5 psi	0/1500 psi	200 psi	10 psi		
0/15 psi	2 psi	0.1 psi	0/2000 psi	200 psi	20 psi		
0/30 psi	5 psi	0.5 psi	0/3000 psi	500 psi	50 psi		
0/60 psi	10 psi	1 psi	0/5000 psi	500 psi	50 psi		
0/100 psi	10 psi	1 psi	0/7500 psi	1000 psi	100 psi		
0/160 psi	20 psi	2 psi	0/10,000 psi	1000 psi	100 psi		

2 psi

NOTE: Because of continuing improvements, specifications are subject to change. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.



### 701L POLY CASE LIQUID FILLED LOWER MOUNT

Plastic case/glycerine filled for durability in applications where vibration/pulsation is present Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Polypropylene, glycerine filled Case

**Wetted Parts** Copper alloy

Removable, polypropylene with adjustable Bezel

Reference clips

Lens Polycarbonate

Adjustable, black aluminum **Pointer** 

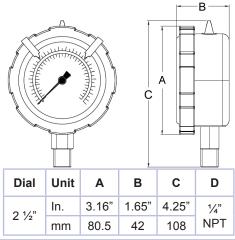
Connection Lower mount

1/4" NPT

Scale Standard: psi/BAR (100 x kPa) **Accuracy** 2-1-2% of span ASME B40.1 Grade A **Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



80 80 80 10 10 11 11 8 8 8 10 8 11 11 11 11 10 10 10 10 10 10 10 10 10

#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 173
- Special Connection Size
- Alternate Lens Material
- Cleaned for Oxygen Service (dry only)
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

**BOX QUANTITIES** 

STANDARD DIAL CONFIGURATIONS					
Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg	0/160 psi	20 psi	2 psi
30/0/15 psi	10" hg/5 psi	1" hg/0.5 psi	0/200 psi	40 psi	5 psi
30/0/30 psi	10" hg/10psi	1" hg/1 psi	0/300 psi	50 psi	5 psi
30/0/60 psi	10" hg/10psi	2" hg/1 psi	0/400 psi	50 psi	5 psi
30/0/100 psi	30" hg/20 psi	5" hg/2 psi	0/600 psi	100 psi	10 psi
30/0/150 psi	30" hg/20 psi	5" hg/2 psi	0/1000 psi	200 psi	20 psi
30/0/300 psi	30" hg/50 psi	10" hg/5 psi	0/1500 psi	200 psi	20 psi
0/15 psi	2 psi	0.2 psi	0/2000 psi	400 psi	50 psi
0/30 psi	5 psi	0.5 psi	0/3000 psi	500 psi	50 psi
0/60 psi	10 psi	1 psi	0/4000 psi	500 psi	50 psi
0/100 psi	20 psi	2 psi	0/5000 psi	1000 psi	100 psi

20/ Q0/ III 11120					
Dial Size	Est. Unit Wt.	Box Qty			
2 ½"	0.55 lb (0.26 kg)	upon request			

**APPROXIMATE SHIPPING WEIGHTS/** 

For part numbering system, see page 4.

NOTE: Because of continuing improvements, specifications are subject to change. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### **CONTRACTOR SERIES**



Large, easily readable gauge designed for commercial & industrial use Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

### **SPECIFICATIONS**

Dial 4 ½" (114 mm)

Case Stainless steel, dry non-fillable

**Wetted Parts** Copper alloy

Bezel Removable, stainless steel

Plastic Lens

Adjustable, black aluminum **Pointer** 

Adjustment screw on dial

Connection Lower mount

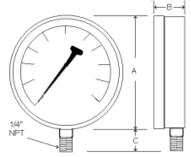
1/4" NPT

Scale Standard: single scale psi

Accuracy 1% of span ASME B40.1 Grade 1A

**Ambient Temp** -30° F to 180° F

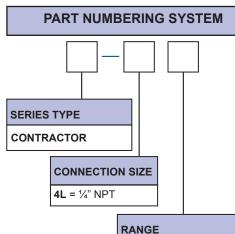
Design meets or exceeds ASME B40.100 pressure gauge standard.





#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Max/Min Pointer, see page 120



A = 30/0" Hg Vac **CC** = 30" Hg Vac/0/30 psi **CE** = 30" Hg Vac/0/100 psi **CF** = 30" Hg Vac/0/150 psi

B = 0/15 psiC = 0/30 psiD = 0/60 psiE = 0/100 psiF = 0/160 psi**G** = 0/200 psi

H = 0/300 psi

J = 0/500 psi

Dial	Unit	Α	В	С
4 ½"	ln.	4.9"	1.17"	.97"
4 /2	mm	124	30	25

\*Lead times/minimums may apply

APPROXIM BOX QUAN	IATE SHIPPING V ITITIES	VEIGHTS/			
Dial Size Est. Unit Wt. Box Qty					

0.75 lb/(0.36kg)

STANDARD DIAL CONFIGURATIONS							
Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals		
30/0"hg Vac	5" hg	0.5" hg	0/60 psi	10 psi	1 psi		
30/0/30 psi	10" hg/5psi	1" hg/1 psi	0/100 psi	10 psi	1 psi		
30/0/100 psi	30" hg/10psi	2" hg/1 psi	0/160 psi	20 psi	2 psi		
30/0/150 psi	30"hg/25 psi	5" hg/5 psi	0/200 psi	20 psi	2 psi		
0/15 psi	2.5 psi	0.25 psi	0/300 psi	50 psi	5 psi		
0/30 psi	5 psi	0.5 psi	0/500 psi	50 psi	5 psi		

4 1/2"

NOTE: Because of continuing improvements, increments and specifications are subject to change, Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

upon request



### 115D SERIES INDUSTRIAL GAUGE

Heavy duty, easily readable gauge with removable back flange Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

#### **SPECIFICATIONS**

Dial 4 ½" (114 mm), 6" (150 mm), 8 ½" (216 mm)

Case Epoxy coated black steel

With removable back flange

**Wetted Parts** Copper alloy

Bezel Removable, chrome plated steel

Plastic for 4 1/2" & 6" Lens

Glass for 8 1/2"

**Pointer** Adjustable, black aluminum

Connection Lower mount

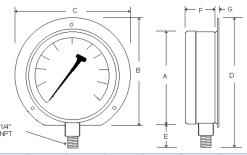
1/4" NPT

Scale Standard: single scale psi

**Accuracy** 1% of span ASME B40.1 Grade 1A

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
4 1/2"	ln.	4.99"	5.41"	5.87"	6.79"	1.40"	1.86"	0.18"
4 /2	mm	125	138	149	172	36	47	4.5
6"	ln.	5.95"	6.87"	7.42"	8.41"	1.61"	1.86"	0.24"
0	mm	151	175	188	213	41	47	6
8 ½"	ln.	8.56"	9.44"	10.3"	10.8"	1.27"	1.93"	0.14"
0 /2	mm	216	240	260	272	32	49	4

STANDARD DIAL CONFIGURATIONS						
Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals	
30/0"hg Vac	5" hg	0.5" hg	0/60 psi	10 psi	1 psi	
30/0/30 psi	10" hg/5psi	1" hg/1 psi	0/100 psi	20 psi	1 psi	
30/0/60 psi	10" hg/10psi	1" hg/0.5 psi	0/160 psi	20 psi	2 psi	
30/0/100 psi	30" hg/20psi	2" hg/1 psi	0/200 psi	20 psi	2 psi	
30/0/150 psi	30" hg/20psi	5" hg/2 psi	0/300 psi	50 psi	5 psi	
30/0/300 psi	30" hg/50psi	5" hg/5 psi	0/400 psi	40 psi	5 psi	
0/15 psi	2 psi	0.2 psi	0/600 psi	100 psi	5 psi	
0/30 psi	5 psi	0.5 psi	0/1000 psi	100 psi	10 psi	



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Dual Scale psi/BAR
- Glass Lens 4 1/2", 6"

\*Lead times/minimums may apply

### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Wt.	Box Qty
4 1/2"	1.80 lb/(0.82 kg)	10
6"	2.60 lb/(1.18kg)	10
8 ½"	5.55 lb/(2.52kg)	upon request

Dial Size	Standard Part Numbers
4 ½"	115D-454(RANGE CODE)
6"	115D-604(RANGE CODE)
8 ½"	115D-854(RANGE CODE)

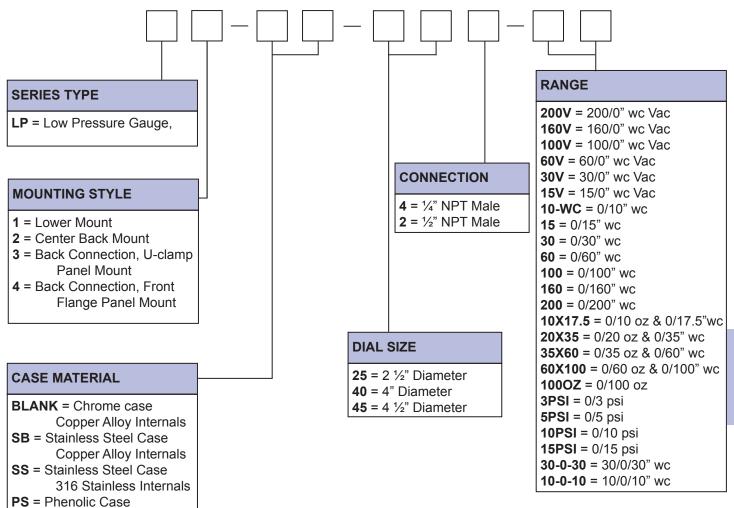
For range codes, see p. 4.

For complete flange dimensions, see p. 123.

NOTE: Because of continuing improvements, increments and specifications are subject to change. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

### LOW PRESSURE SERIES PART NUMBERING SYSTEM





### EXAMPLE: "LP1-SB-254-100"

**LP** = Low Pressure Gauge

1 = Lower Mount

316 Stainless Internals

**SB** = Stainless Steel Case, Copper Alloy Internals

25 = 2 1/2" Diameter

4 = 1/4" NPT Male

100 = 0/100" wc





# LP SERIES **LOW PRESSURE GAUGE**

Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy









		STANE	AF	RD DIAL CO	NFIGURATI	ONS FOR L	.P SI	ERIES
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Ra
200/0"wc Vac	40" wc	4" wc		0/15" wc	3" wc	0.2" wc		0/100
160/0"wc Vac	20" wc	5" wc		0/30" wc	5" wc	0.5" wc		0/160
100/0"wc Vac	20" wc	2" wc		0/20 oz &	5 oz/5" wc	0.5 oz/0.5"		0/200
60/0"wc Vac	10" wc	1" wc		0/35" wc		wc		0/3 p
30/0"wc Vac	5" wc	0.5" wc		0/35 oz & 0/60" wc	5 oz/10" wc	1 oz/1" wc		0/5 p
15/0"wc Vac	3" wc	0.2" wc		0/60" wc	10" wc	1" wc	-	0/10
30/0/30" wc	10" wc	1" wc		0/60 oz &	10 oz/10" wc	1 oz/2" wc		0/15
5/0/15 wc	1" wc	0.25" wc		0/60 02 & 0/100" wc	10 02/10 WC	1 02/2 WC		
0/10" wc	1" wc	0.1" wc		0/100 oz	20 oz	2 oz		

Dial Range	Figure Intervals	Graduation Intervals
0/15" wc	3" wc	0.2" wc
0/30" wc	5" wc	0.5" wc
0/20 oz & 0/35" wc	5 oz/5" wc	0.5 oz/0.5" wc
0/35 oz & 0/60" wc	5 oz/10" wc	1 oz/1" wc
0/60" wc	10" wc	1" wc
0/60 oz & 0/100" wc	10 oz/10" wc	1 oz/2" wc
0/100 oz	20 oz	2 oz

Dial Range	Figure Intervals	Graduation Intervals
0/100" wc	20" wc	2" wc
0/160" wc	20" wc	5" wc
0/200" wc	40" wc	4" wc
0/3 psi	0.5 psi	0.05 psi
0/5 psi	1 psi	0.1 psi
0/10 psi	2 psi	0.2 psi
0/15 psi	3 psi	0.3 psi

NOTE: Because of continuing improvements, increments and specifications are subject to change. Stock ranges vary by dial size and configuration. Consult PIC Gauges for availability.

## LP1 LOW PRESSURE **LOWER MOUNT**



Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Chrome plated steel, dry non-fillable Case

**Wetted Parts** Copper alloy

Lens Plastic, removable twist lock Pointer Adjustable, black aluminum

Adjustment screw at rear of case

Connection Lower mount

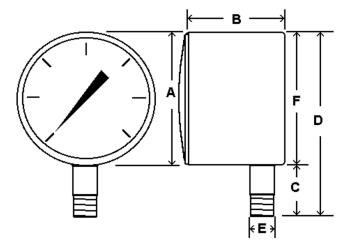
1/4" NPT

Scale Standard: single scale inches of water column

Accuracy 3-2-3% of span, ASME B40.1 Grade B

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F
2 ½"	ln.	2.62"	1.85"	.85"	3.45"	1/4"	2.6"
Z //2	mm	67	47	22	88	NPT	66



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 119
- Dual Scale

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 ½"	0.50 lbs (0.24 kg)	100

Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

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### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Case Chrome plated steel, dry non-fillable

**Wetted Parts** Copper alloy

Plastic, removable twist lock Lens Adjustable, black aluminum **Pointer** 

Adjustment screw at rear of case

Connection Center back mount

1/4" NPT

Standard: single scale inches of water column Scale

**Accuracy** 3-2-3% of span ASME B40.1 Grade B

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 119
- Dual Scale

	В	
A	√ ← D —	
	•	•

Dial	Unit	A	В	С	D	E	F
0.1/"	ln.				2.75"	1/4"	2.60"
2 ½"	mm	66	49	22	71	NPT	66

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 ½"	0.50 lbs	75
	(0.24 kg)	

## **LP3 LOW PRESSURE U-CLAMP PANEL MOUNT**



Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Case Chrome plated steel, dry non-fillable

**Wetted Parts** Copper alloy

Lens Plastic, removable twist lock **Pointer** Adjustable, black aluminum

Adjustment screw at rear of case

Center back mount with u-clamp Connection

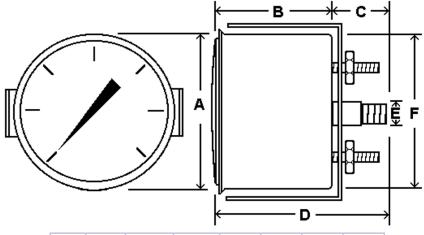
1/4" NPT

Scale Standard: single scale inches of water column

**Accuracy** 3-2-3% of span ASME B40.1 Grade B

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F
2 ½"	ln.	2.84"	1.61"	0.88"	3.45"	1/4"	2.6"
Z 1/2	mm	72	41	22	88	NPT	66



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Dual Scale

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 ½"	0.50 lbs (0.24 kg)	upon request

### **LP4 LOW PRESSURE** FRONT FLANGE PANEL MOUNT

Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Case Chrome plated steel, dry non-fillable

**Wetted Parts** Copper alloy

Plastic, removable twist lock Lens Adjustable, black aluminum **Pointer** 

Adjustment screw at rear of case

Connection Center back mount with front flange

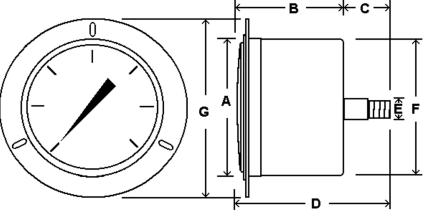
1/4" NPT

Standard: single scale inches of water column Scale

**Accuracy** 3-2-3% of span ASME B40.1 Grade B

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



		Α				E	F	G
2 ½"	ln.	2.71"	1.81"	0.92"	2.72"	1/4"	2.60"	3.44"
Z /2	mm	69	46	23	70	NPT	66	87



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Dual Scale

\*Lead times/minimums may apply

APPROXIMAT BOX QUANTIT	E SHIPPING W FIES	EIGHTS/
Dial Cina	Eat Unit W/t	Boy Oty

Dial Size	Est. Unit Wt.	Box Qty
2 ½"	0.55 lbs	upon
	(0.26 kg)	request

### **LOW PRESSURE TEST KIT**



Low pressure test kit for accurate measurement of LP or natural gas Includes black ABS plastic molded case, hose and fitting for portable testing

#### **SPECIFICATIONS**

Connection

**Part Number TEST KIT-LP** Dial 2 ½" (63 mm)

Case Black painted steel, dry non-fillable

**Wetted Parts** Copper alloy 0/20 oz X 0/35" wc\* Range

Lens Plastic, removable twist lock **Pointer** Adjustable, black aluminum

Adjustment screw at rear of case Gauge = Copper alloy hose barb

Hose = Flexible rubber adapter fits multiple pipe

sizes from 1/4" to 5/8" OD

Scale Standard: dual scale inches of water column

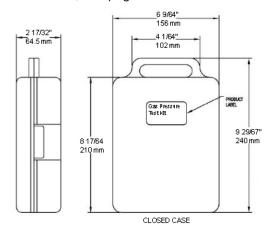
and oz/in<sup>2</sup>

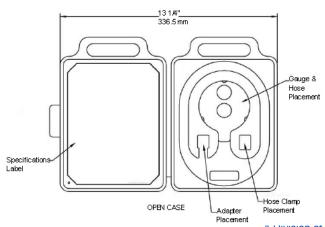
2% of span ASME B40.1 Grade B **Accuracy** 

-30° F to 180° F **Ambient Temp Hose Tube** 3 feet (91 cm) rubber

Design meets or exceeds ASME B40.100 pressure gauge standard.

For gauge dimensions, see page 67.







### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Alternate Pressure/Vacuum Ranges

\*Lead times/minimums may apply

	APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES			
Dial Size	Est. Unit Wt.	Box Qty		
2 1/2"	1.50 lbs (0.68 kg)	upon request		



# **LP-SB/SS SERIES** LOW PRESSURE GAUGE

Capsule type pressure gauge for accurate measurement of low pressures Stainless steel case gauges with copper alloy or 316 stainless internals









		STANDAR	D [	DIAL CONFI	GURATION	S FOR LP-S	B/S	S SERIES
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Range
200/0"wc Vac	50" wc	5" wc		0/15" wc	3" wc	0.2" wc		0/100" wc
100/0"wc Vac	20" wc	2" wc		0/30" wc	5" wc	0.5" wc		0/160" wc
60/0"wc Vac	10" wc	1" wc		0/10 oz &	2.5 oz/2.5" wc	0.25 oz/0.5" wc		0/200" wc
30/0"wc Vac	5" wc	0.5" wc		0/17.5" wc				0/3 psi
30/0/30" wc	10" wc	1" wc		0/20 oz & 0/35" wc	5 oz/5" wc	0.5 oz/1" wc		0/5 psi
15/0/15 wc	5" wc	0.5" wc		0/35 oz &	5 oz/10" wc	1 oz/2" wc		0/10 psi
10/0/10 wc	5" wc	0.5" wc		0/35 02 & 0/60" wc	5 02/10 WC	1 02/2 WC		
0/10" wc	2" wc	0.2" wc		0/60" wc	10" wc	1" wc		

Dial Range	Figure Intervals	Graduation Intervals
0/15" wc	3" wc	0.2" wc
0/30" wc	5" wc	0.5" wc
0/10 oz & 0/17.5" wc	2.5 oz/2.5" wc	0.25 oz/0.5" wc
0/20 oz & 0/35" wc	5 oz/5" wc	0.5 oz/1" wc
0/35 oz & 0/60" wc	5 oz/10" wc	1 oz/2" wc
0/60" wc	10" wc	1" wc

Dial Range	Figure Intervals	Graduation Intervals	
0/100" wc	20" wc	2" wc	
0/160" wc	40" wc	5" wc	
0/200" wc	50" wc	5" wc	
0/3 psi	0.5 psi	0.05 psi	
0/5 psi	1 psi	0.1 psi	
0/10 psi	2 psi	0.2 psi	

# **LP1-SB LOW PRESSURE** STAINLESS STEEL CASE



Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

### **SPECIFICATIONS**

Dial 2 ½" (63 mm), 4" (100 mm) Case Stainless steel, dry non-fillable

**Wetted Parts** Copper alloy

Bezel Removable, stainless steel

Lens Heavy duty glass

**Pointer** Adjustable, black aluminum

Adjustment screw on dial face

Connection Lower mount

1/4" NPT for 2 1/2" & 4"

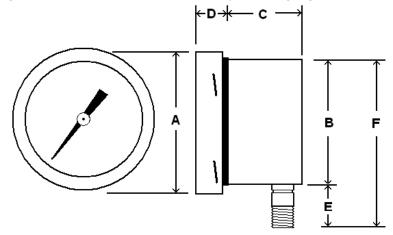
Standard: single scale inches of water column Scale

Accuracy 2-1-2% of span on 2 1/2" & 4" ASME B40.1

Grade A

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Conn.	Е	F
2 ½"	ln.	2.95"	2.55"	1.23"	0.58"	1/" NDT	1.00"	3.55"
Z /2	mm	2.95"     2.55"     1.23"     0.58"       75     65     31     15	74 INP I	25	90			
4"	ln.	4.38"	3.87"	1.27"	0.64"	1⁄4" NPT	1.42"	5.30"
4"	mm	111	99	32.3	17	74 INP I	36	135



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 119

\*Lead times/minimums may apply

# **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Wt.	Box Qty
2 1/2"	0.55 lbs (0.26 kg)	50
4"	0.95 lbs (0.44 kg)	30



# LP2-SB LOW PRESSURE STAINLESS STEEL CASE

Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to Copper alloy

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Case Stainless steel, dry non-fillable

**Wetted Parts** Copper Allov

Removable, stainless steel Bezel

Heavy duty glass Lens

**Pointer** Adjustable, black aluminum

Adjustment screw on dial face

Connection Center back mount

1/4" NPTI

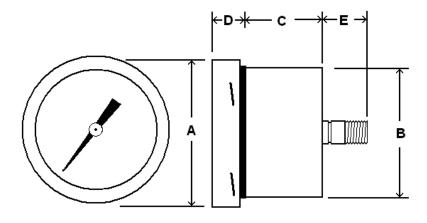
Standard: single scale inches of water column Scale

or psi

Accuracy 2-1-2% of span 2 1/2" ASME B40.1 Grade A

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Conn.	E
2 1/"	ln.	2.95"	2.57"	1.23"	0.58"	1⁄4" NPT	1.05"
2 ½"	mm	75	65	31	15	74 INP I	27



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 119
- Dual Scale

\*Lead times/minimums may apply

# **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Wt.	Box Qty
2 ½"	0.60 lbs (0.28 kg)	upon request

# LP3-SB LOW PRESSURE STAINLESS STEEL CASE



Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to Copper alloy

# **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, dry non-fillable Case

**Wetted Parts** Copper alloy

Removable, stainless steel Bezel

Lens Heavy duty glass

Adjustable, black aluminum **Pointer** 

Adjustment screw on dial face

Connection Center back mount with u-clamp

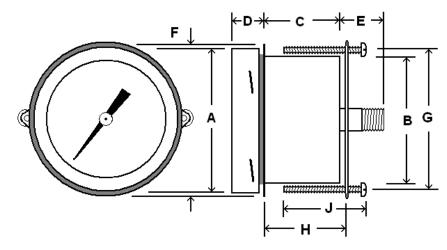
1/4" NPT

Standard: single scale inches of water column Scale

Accuracy 2-1-2% of span on 2 1/2" ASME B40.1 Grade A

-30° F to 180° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Conn.	E
2 ½"	ln.	2.95"	2.56"	1.33"	0.55"	1⁄4" NPT	1.10"
2 1/2"	mm	75	65	34	14	/4 INF I	28

Dial	Unit	F	G	Н	J
2 ½"	ln.	3.22"	2.83"	1.46"	1.46"
	mm	82	72	37	37



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Dual Scale

\*Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES						
Dial Size	Est. Unit Wt.	Box Qty				
2 ½"	0.65 lbs	upon				

(0.30 kg)

request



# LP4-SB LOW PRESSURE STAINLESS STEEL CASE

Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to Copper alloy

# **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, dry non-fillable Case

**Wetted Parts** Copper Alloy

Removable, stainless steel Bezel

Heavy duty glass Lens

**Pointer** Adjustable, black aluminum

Adjustment screw on dial face

Center back mount with front flange Connection

1/4" NPT

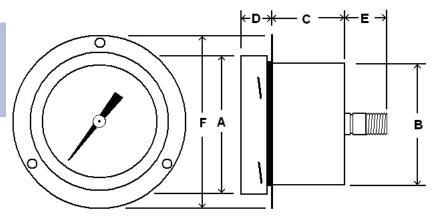
Standard: single scale inches of water column Scale

or psi

**Accuracy** 2-1-2% of span 2 1/2" ASME B40.1 Grade A

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Conn.	E	F
2 ½"	ln.	2.95"	2.57"	1.23"	0.58"	1⁄4" NPT	1.05"	3.61"
	mm	75	65	31	15	74 INP I	27	92



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Dual Scale

\*Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES						
Dial Size	Est. Unit Wt.	Box Qty				
2 ½"	0.65 lbs	upon				

(0.30 kg)

request

# LP1-SS LOW PRESSURE **ALL STAINLESS**



Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

### **SPECIFICATIONS**

Dial 2 ½" (63 mm), 4" (100 mm) Case Stainless steel, dry non-fillable

**Wetted Parts** 316 stainless steel

Removable, stainless steel **Bezel** 

Lens Heavy duty glass

**Pointer** Adjustable, black aluminum

Adjustment screw on dial face

Connection Lower mount

1/4" NPT for 2 1/2" & 4" dial

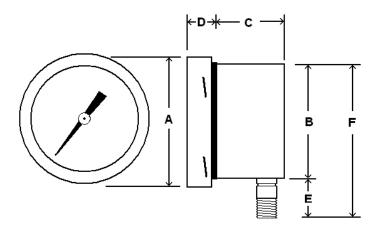
1/2" NPT for 4"

Scale Standard: single scale inches of water column

Accuracy 2-1-2% of span 2 1/2" & 4" ASME B40.1 Grade A

-30° F to 180° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Conn.	Е	F
2 ½"	ln.	2.95"	2.55"	1.23"	0.58"	1⁄4" NPT	1.00"	
Z /2								90
4"	ln.	4.38"	3.87"	1.27"	0.64"	1⁄4" NPT	1.42"	5.30"
4" mm	mm	111	99	32.3	17	74 INP I	36	135



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 77
- Dual Scale

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES** Est. Unit Wt. **Dial Size Box Qty** 2 1/2" 0.55 lbs 50 (0.26 kg)

0.95 lbs

(0.44 kg)

4"

30

<sup>\*</sup>Lead times/minimums may apply



# LP2-SS LOW PRESSURE **ALL STAINLESS**

Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, dry non-fillable Case

**Wetted Parts** 316 stainless steel

Removable, stainless steel Bezel

Lens Heavy duty glass

Adjustable, black aluminum **Pointer** 

Adjustment screw on dial face

Connection Center back mount

1/4" NPT

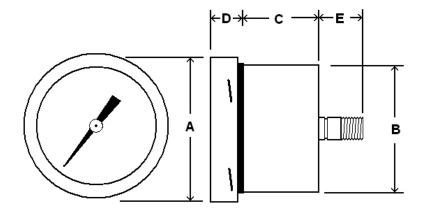
Standard: single scale inches of water column **Scale** 

or psi

**Accuracy** 2-1-2% of span 2 1/2" ASME B40.1 Grade A

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Conn.	E
2 ½"	ln.	2.95"	2.57"	1.23"	0.58"	1⁄4" NPT	1.05"
Z 72	mm	75	65	31	15	74 INP I	27



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 119
- Dual Scale

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit Wt. **Box Qty** 2 ½" 0.60 lbs upon

(0.28 kg)

request

<sup>\*</sup>Lead times/minimums may apply

# LP3-SS LOW PRESSURE **ALL STAINLESS**



Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

# **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Case Stainless steel, dry non-fillable

**Wetted Parts** 316 stainless steel

Bezel Removable, stainless steel

Lens Heavy duty glass

**Pointer** Adjustable, black aluminum

Adjustment screw on dial face

Connection Center back mount with u-clamp

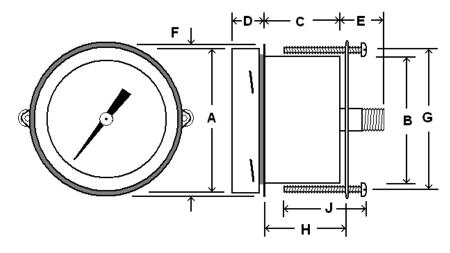
1/4" NPT

Standard: single scale inches of water column Scale

Accuracy 2-1-2% of span on 2 1/2" ASME B40.1 Grade A

-30° F to 180° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Conn.	Е
2 ½"	ln.	2.95"	2.56"	1.33"	0.55"	1⁄4" NPT	1.10"
Z /2	mm	75	65	34	14	/4 INF I	28

Dial	Unit	F	G	Н	J
2 ½"	ln.	3.22"	2.83"	1.46"	1.46"
2 /2	mm	82	72	37	37



# **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Dual Scale

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit Wt. **Box Qty** 2 1/2" 0.65 lbs upon

(0.30 kg)

request



# LP4-SS LOW PRESSURE STAINLESS STEEL CASE

Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

### **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, dry non-fillable Case

316 stainless steel **Wetted Parts** 

Removable, stainless steel Bezel

Lens Heavy duty glass

**Pointer** Adjustable, black aluminum

Adjustment screw on dial face

Center back mount with front flange Connection

1/4" NPT

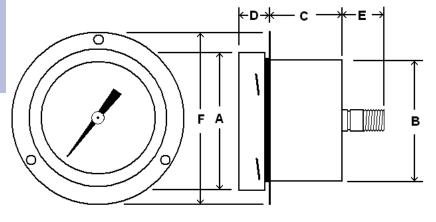
Standard: single scale inches of water column Scale

or psi

**Accuracy** 2-1-2% of span 2 1/2" ASME B40.1 Grade A

**Ambient Temp** -30° F to 180° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Conn.	Е	F
2 ½"	ln.	2.95"	2.57"	1.23"	0.58"	1⁄4" NPT	1.05"	3.61"
<b>2</b> /2	mm	75	65	31	15	/4 INP I	27	92



# **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Dual Scale

\*Lead times/minimums may apply

# **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Wt.	Box Qty
2 ½"	0.65 lbs (0.30 kg)	upon request

# LP1-PS LOW PRESSURE PHENOLIC CASE



Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

### **SPECIFICATIONS**

Dial 4 ½" (115 mm)

Case Phenolic, dry non-fillable

**Wetted Parts** 316 stainless steel

Bezel Phenolic

Lens Tempered glass

**Pointer** Adjustable, black aluminum

Adjustment screw on dial face

Connection Lower mount

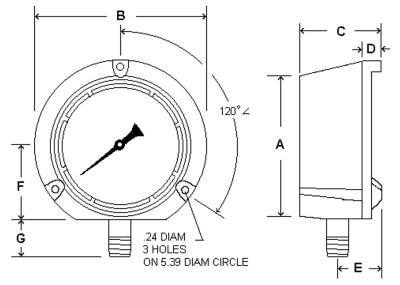
1/2" or 1/4" NPT

Scale Standard: single scale inches of water column

Accuracy 2-1-2% of span ASME B40.1 Grade A

-30° F to 180° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F	G	NPT
4 1/2"	In.	5.10"	5.83"	3.23"	1.07"	1.65"	2.60"	1.41"	1/4" or 1/2"
4 /2	mm	130	148	82	27	42	66	36	/4 UI /2



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Dual Scale

\*Lead times/minimums may apply

# **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Wt.	Box Qty
4 ½"	2.10 lbs (0.96 kg)	upon request

		STANDA	RD	DIAL CONF	IGURATIO	NS FOR LP1	I-PS	SERIES
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Range
200/0"wc Vac	20" wc	2" wc		0/15" wc	3" wc	0.2" wc		0/100" wo
100/0"wc Vac	10" wc	1" wc		0/30" wc	5" wc	0.5" wc		0/200" wo
30/0"wc Vac	5" wc	0.5" wc		0/60" wc	10" wc	0.5" wc		

Dial Range	Figure Intervals	Graduation Intervals
0/15" wc	3" wc	0.2" wc
0/30" wc	5" wc	0.5" wc
0/60" wc	10" wc	0.5" wc

Dial Range	Figure Intervals	Graduation Intervals
0/100" wc	20" wc	2" wc
0/200" wc	20" wc	2" wc



# **DIGITAL PRESSURE GAUGE**

# General purpose digital pressure gauge, backlit LED display for clear, concise readings

### **SPECIFICATIONS**

Dial 3" (76 mm) Case Black aluminum 4 digits standard **Display** 

**Wetted Parts** 304L & 316L stainless steel

Standard ranges from 30" hg vac to 5,000 psi Ranges

Connection Lower mount 1/4" NPT for 3"

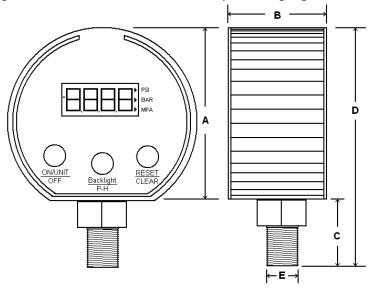
**Measurement Units** psi, BAR, MPa

0.25% of span on 3" ASME B40.1 Grade 3A **Accuracy** 

14° F to 140° F **Ambient Temp Power Supply** 9 volt battery **Functions** Zero reset Backlight

Peak/Hold

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е
3"	ln.	3.35"	2.03"	0.92"	4.21"	1/4"
3	mm	85	52	23	107	NPT

Dial Size	Standard Part Numbers	
3"	DPG-254L(RANGE CODE)	

Stock Ranges				
A = 30/0" Hg Vac	L = 0/800 psi			
E = 0/100 psi	M = 0/1000 psi			
H = 0/300 psi P = 0/3000 psi				
R = 0/5000 psi				



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Protective Rubber Cover, see page 119
- Special Connection Size

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES				
Dial Size	Est. Unit Weight	Box Qty		
3"	1.10 lbs (0.50 kg)	upon request		

# **BULK-HD SERIES**



# Heavy duty 4 1/2" gauge designed for the dry bulk tanker market With anti-vibration movement for enhanced repeatability and durability

### **SPECIFICATIONS**

Dial 4 ½" (113 mm)

Case Black steel, epoxy coated with

Removable back flange

Dry, non-fillable

Copper alloy **Wetted Parts** 

Movement Heavy duty stainless steel

Anti-vibration

Standard: 0/30 psi, 30" Hg Vac/0/30 psi Ranges

Lens

**Pointer** Adjustable, black aluminum

Connection Lower mount

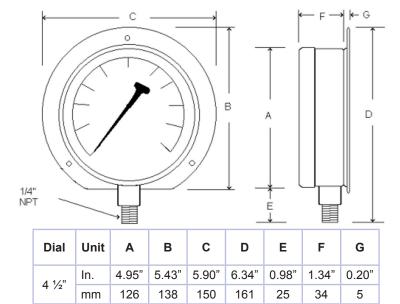
1/4" NPT

Scale Standard: single scale psi

1% of span, ASME B40.1 Grade 1A **Accuracy** 

**Ambient Temp** -40° F to 140° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



# STANDARD DIAL CONFIGURATIONS

Part Number	Dial Range	Figure Intervals	Graduation Intervals
BULK-HD-454L-CC	30/0/30 psi	10" hg/10psi	1" hg/1 psi
BULK-HD-454L-C	0/30 psi	5 psi	0.5 psi



# **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES				
Dial Size	Est. Unit Wt.	Box Qty		
4 ½"	1.10 lbs (0.50 kg)	upon request		



# **S215L BACK FLANGE**

Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals Heavy duty gauge designed for the dry bulk tanker market

### **SPECIFICATIONS**

Dial 4" (100 mm)

Stainless steel with removable back flange Case

Glycerine filled

Copper alloy **Wetted Parts** Standard: 0/30 psi Ranges Stainless steel, fixed Bezel

Lens Plastic

**Pointer** Black aluminum Connection Lower mount

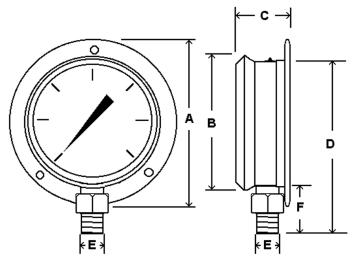
1/4" NPT

Scale Standard: single scale psi

Accuracy 1% of span, ASME B40.1 Grade 1A Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F
4"	ln.	5.13"	4.29"	1.77"	5.19"	1/4"	1.30"
4	mm	130	109	45	132	NPT	38

# STANDARD DIAL CONFIGURATIONS

	Part Number	Number Dial Range		Graduation Intervals	
ľ	S215L-404C	0/30 psi	3 psi	0.2 psi	



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Alternate Ranges

\*Lead times/minimums may apply

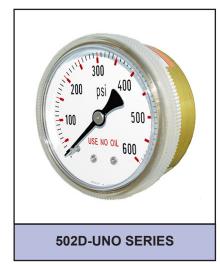
#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit Wt. **Box Qty**

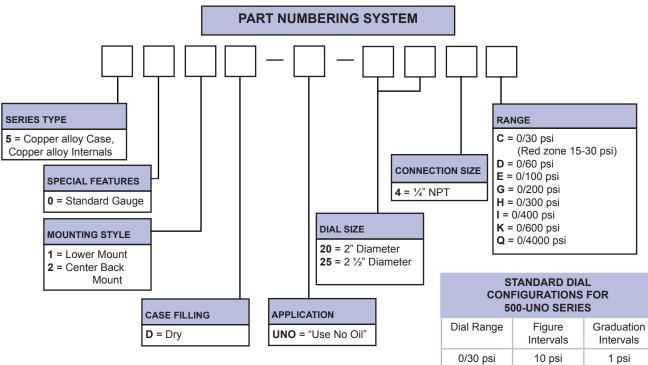
# **500-UNO SERIES**



"Use No Oil" gauge designed for use on compressed gas regulators and tanks copper alloy case, twist off lens, copper alloy internals







EXAMPLE APPLICATIONS
Welding
Beverage
Cryogenic

-----

Intervals 10 psi 0/60 psi 1 psi 0/100 psi 20 psi 2 psi 0/200 psi 40 psi 5 psi 0/300 psi 50 psi 5 psi 50 psi 0/400 psi 5 psi 0/600 psi 100 psi 20 psi 0/4000 psi 500 psi 100 psi



# **501D-UNO SERIES**

"Use No Oil" gauge designed for use on compressed gas regulators and tanks copper alloy case, twist off lens, copper alloy internals

# **SPECIFICATIONS**

Dial 2" (50 mm), 2 ½" (63 mm)

Highly polished copper alloy, dry non-fillable Case

**Wetted Parts** Copper alloy Removable lens Bezel Plastic, twist on Lens Pointer Black aluminum Connection Lower mount

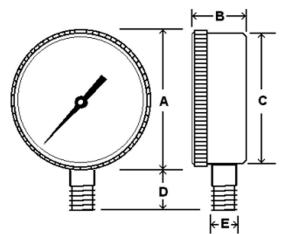
1/4" NPT

Scale Standard: single scale psi

3-2-3% of span, ASME B40.1 Grade B Accuracy

-4° F to 140° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е
2"	ln.	2.31"	1.2"	2.07"	1.13"	1/4"
	mm	59	31	53	29	NPT
2 1/"	ln.	2.83"	1.13"	2.65"	1.13"	1/4"
2 ½"	mm	72	29	68	29	NPT



# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- (9) Listed (UL 252A or UL 404)
- Alternate Case Material
  - Painted Steel
  - Plastic
  - Stainless Steel

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
2"	0.30 lbs (0.12 kg)	upon request			
2 ½"	0.35 lbs (0.16 kg)	upon request			

# **502D-UNO SERIES**



"Use No Oil" gauge designed for use on compressed gas regulators and tanks copper alloy case, twist off lens, copper alloy internals

### **SPECIFICATIONS**

2" (50 mm), 2 ½" (63 mm) Dial

Case Highly polished copper alloy, dry non-fillable

**Wetted Parts** Copper alloy Removable lens Bezel Plastic, twist on Lens Pointer Black aluminum Connection Center back mount

1/4" NPT

Scale Standard: single scale psi

3-2-3% of span, ASME B40.1 Grade B Accuracy

Ambient Temp -4° F to 140° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



# $\vdash$

Dial	Unit	Α	В	С	D	E
2"	ln.	2.31"	1.08"	2.10"	0.84"	1/4"
	mm	59	27	53	21	NPT
0.1/"	ln.	2.83"	1.13"	2.65"	1.13"	1/4"
2 ½"	mm	72	29	68	29	NPT

# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- (h) Listed (UL 252A or UL 404)
- Alternate Case Material
  - Painted Steel
  - Plastic
  - Stainless Steel

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES				
Dial Size	Est. Unit Wt.	Box Qty		
2"	0.30 lbs (0.12 kg)	upon request		
2 ½"	0.35 lbs (0.16 kg)	upon request		



# **ALTITUDE SERIES**

For measuring head pressure, water level/depth in tower, tank or well Suitable for air, water, oil, gas or other media not corrosive to copper alloy

### **SPECIFICATIONS**

Dial 3 ½" (89 mm), 4 ½" (114 mm) Case Black steel, dry non-fillable

**Wetted Parts** Copper alloy

0/15 psi to 0/200 psi Ranges

Chrome Bezel Lens Plastic

Pointer Black aluminum, adjustable red set hand

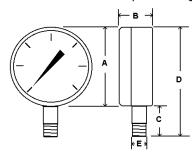
Connection Lower mount

1/4" NPT

Scale Standard: psi/Feet of water column Accuracy 3-2-3% of span ASME B40.1 Grade B

Ambient Temp -50° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.





# **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Ranges

Dial	Unit	Α	В	С	D	Е
3 ½"	ln.	3.53"	1.14"	1.02"	4.55"	1/4"
	mm	90	29	26	116	NPT
4 ½"	ln.	4.89"	1.16"	1.16"	6.05"	1/4"
4 /2	mm	124	29	29	154	NPT

Dial Size	Standard Part Numbers
3 ½"	ALTITUDE-354L-RANGE CODE
4 ½"	ALTITUDE-454L-RANGE CODE

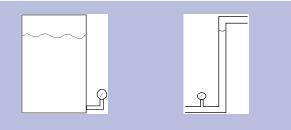
Ranges								
psi	Ft. of Wa- ter Col.							
0/15	0/34							
0/30	0/70							
0/60	0/140							
0/100	0/230							
0/160	0/370							
0/200	0/460							
	psi  0/15  0/30  0/60  0/100  0/160							

\*Lead times/minimums may apply

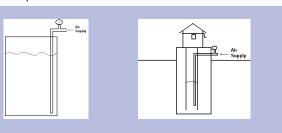
# **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Wt.	Box Qty
3 ½"	0.5 lbs/(0.24 kg)	upon request
4 ½"	0.65 lbs/(0.3 kg)	upon request

1. For tower or tank depth or head pressure, gauge should be mounted at the lowest possible point as pressure/depth reading is from gauge level up.



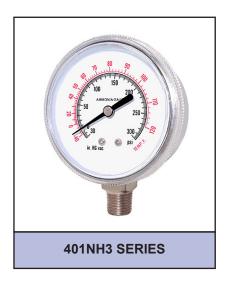
2. For well depth or tank depth where gauge is mounted above max fill line, gauge must be mounted on air line going into top of tank (or well) and straight down vertically to maximum depth to be measured.



# **AMMONIA REFRIGERATION GAUGES**



For ammonia refrigeration applications, PIC Gauges ammonia gauges measure ammonia refrigerant pressure and corresponding temperature.





STANDARD DIAL CONFIGURATIONS FOR AMMONIA SERIES								
Part Number	Dial Range	Figure Intervals	Graduation Intervals					
401NH3-254CF	30/0/150	30" hg/25 psi	5" hg/5 psi					
401NH3-254CH	30/0/300	30" hg/50 psi	5" hg/5 psi					
401NH3-404CF	30/0/150	30" hg/25 psi	5" hg/5 psi					
401NH3-404CH	30/0/300	30" hg/50 psi	5" hg/5 psi					
AMMONIA-LF-254CF	30/0/150	30" hg/20 psi	5" hg/2 psi					
AMMONIA-LF-254CH	30/0/300	30" hg/50 psi	10" hg/5 psi					
AMMONIA-LF-404CF	30/0/150	30" hg/25 psi	5" hg/5 psi					
AMMONIA-LF-404CH	30/0/300	30" hg/50 psi	5" hg/5 psi					

<sup>\*</sup>For Agricultural Ammonia gauges, see page 91.



# **401NH3 SERIES**

Dry non-fillable gauge for ammonia refrigeration applications Chrome plated steel case, stainless steel internals and steel socket

### **SPECIFICATIONS**

Dial 2 ½" (63 mm), 4" (100 mm)

Chrome plated steel case, dry non-fillable Case **Wetted Parts** Steel socket, stainless steel Bourdon tube

30/0/150 psi/-40/0/80° F Ranges

30/0/300 psi/-40/0/120° F

**Bezel** Removable lens Lens Plastic, twist-off

**Pointer** 2 1/2" - adjustable, black aluminum

4" - without adjustment, black aluminum

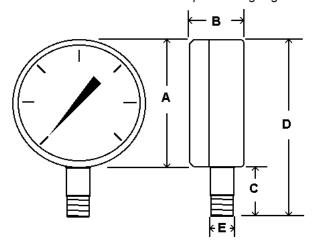
Connection Lower mount

1/4" NPT

Scale Standard: psi/° F temperature equivalent 3-2-3% of span ASME B40.1 Grade B Accuracy

Dry =  $-40^{\circ}$  F to  $180^{\circ}$  F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
2 ½"	ln.	2.87"	1.14"	0.84"	2.65"	1/4"
Z //2	mm	73	29	21	67	NPT
4"	ln.	4.21"	1.35"	1.03"	3.89"	1/4"
4"	mm	107	34	26	99	NPT



### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES							
Dial Size	Est. Unit Wt.	Box Qty					
2 ½"	0.3 lbs (0.14 kg)	50					
4"	0.55 lbs (0.24 kg)	50					

# **AMMONIA-LF SERIES**



# Glycerine filled gauge for ammonia refrigeration applications Stainless steel case, 316 stainless steel internals

# **SPECIFICATIONS**

Dial 2 ½" (63 mm), 4" (100 mm) Case Stainless steel, glycerine filled

**Wetted Parts** 316 stainless steel 30/0/150 psi/-40/0/80° F Ranges 30/0/300 psi/-40/0/120° F Removable, stainless steel Bezel

Polycarbonate Lens

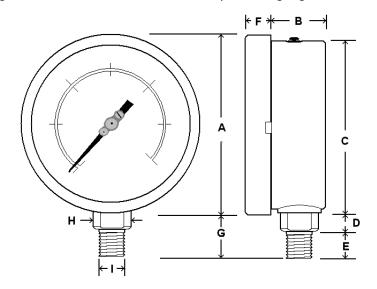
Adjustable, black aluminum **Pointer** 

Lower mount Connection 1/4" NPT

Scale Standard: psi/° F temperature equivalent Accuracy 2-1-2% of span ASME B40.1 Grade A Glycerine Filled = 30° F to 160° F **Ambient Temp** 

 $Dry = -40^{\circ} F \text{ to } 180^{\circ} F$ 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F	G	Н	I
2 ½"	ln.	2.72"	0.76"	2.50"	0.24"	0.49"	0.44"	0.70"	0.55"	1/4"
2 /2	mm	69	19.5	64	6.2	12.4	11.3	18	14	NPT
4"	ln.	4.32"	1.30"	4.06"	0.52"	0.58"	0.57"	1.08"	0.84"	1/4"
4	mm	110	33	103	13.3	15	14.6	27.5	21.5	NPT



### **AVAILABLE OPTIONS\***

- Custom Dial
- Liquid Fill Options, see page 173
- Glow Dials
- Special Connection Size
- Other Ranges

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES** Est. Unit Wt. **Dial Size Box Qty** 2 1/2" 0.50 lbs 100 (0.22 kg) 4" 1.75 lbs 30 (0.80 kg)



# AMMONIA-604 LOWER BACK MOUNT

Heavy duty 6" dry yet fillable gauge for ammonia refrigeration applications Stainless steel case, 316 stainless steel internals

#### **SPECIFICATIONS**

**Dial** 6" (152 mm)

Case Stainless steel, dry yet fillable,

With back flange

Wetted Parts 316 stainless steel

**Ranges** 30/0/150 psi/-100/0/86° F

30/0/300 psi/-100/0/125° F

Bezel Removable, stainless steel

**Lens** Tempered glass

**Pointer** Adjustable, black aluminum

**Connection** Lower back mount

1/4" NPT

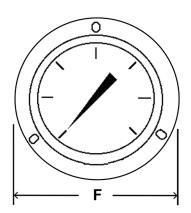
**Scale** Standard: psi/° F temperature equivalent

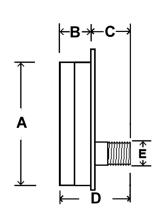
**Accuracy** 0.5% of span ASME B40.1 Grade 2A

Ambient Temp Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.





1	Dial	Unit	Α	В	С	D	Е	F
	6"	In.	6.75"	2.00"	1.53"	3.53"	1/4"	7.65"
		mm	171	50	38	88	NPT	194



# **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Plastic Lens

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES							
Dial Size	Est. Unit Wt.	Box Qty					
6"	2.45 lbs (1.12 kg)	upon request					

# **AMMONIA-804** LOWER BACK MOUNT



Heavy duty all stainless gauge Removable bezel, adjustable pointer Suitable for applications not corrosive to stainless steel

### **SPECIFICATIONS**

Dial 8" (203 mm)

Case Stainless steel, dry non-fillable,

rear flange

**Wetted Parts** 316 stainless steel

30/0/150 psi/-100/0/84° F Ranges

30/0/300 psi/-100/0/125° F

Removable, black aluminum Bezel Lens Tempered glass

Adjustable, black aluminum **Pointer** 

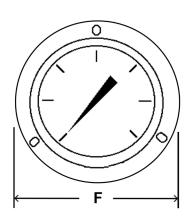
Lower back mount Connection

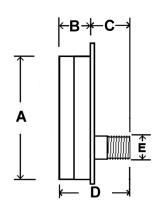
1/4" NPT

Scale Standard: psi/° F temperature equivalent

1% of span ASME B40.1 Grade 1A Accuracy

**Ambient Temp** -30° F to 180° F





Dial	Unit	Α	В	С	D	Е	F
8"	ln.	7.93"	1.59"	1.41"	3.00"	1/4"	9.13"
0	mm	201	40	36	76	NPT	232



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- **Custom Dial**
- Special Connection Size
- Cleaned for Oxygen Service
- Plastic Lens

8"

\*Lead times/minimums may apply

### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit Wt. **Box Qty**

3.95 lbs

(1.80 kg)

upon request





# ADDITIONAL AMMONIA **GAUGES**

# Ammonia refrigerant gauges

# **AMMONIA PROCESS GAUGE SPECIFICATIONS**

Dial 4 ½" (114 mm), 6" (160 mm)

Case Phenolic - Solid front blow out back on 4 1/2"

Aluminum with hinged front flange on 4 1/2" & 6"

**Wetted Parts** 316 stainless steel 30/0/150 psi/-40/0/80° F Ranges

30/0/300 psi/-40/0/120° F

Bezel Removable Lens Polycarbonate

Pointer Adjustable, black aluminum Connection Lower mount or lower back mount

1/4" or 1/2" NPT for 4 1/2" & 6"

Standard: psi/° F temperature equivalent Scale

Accuracy 0.5% of span on 4 1/2" & 6" ASME B40.1 Grade 2A

**Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



4501 4502 4504 6504 page <OV> - page 58

# **AMMONIA PANEL MOUNT SPECIFICATIONS**

Dial 2 ½" (63 mm), 4" (100 mm), 6" (160 mm)

Case Stainless steel **Wetted Parts** 316 stainless steel 30/0/150 psi/-40/0/80° F Ranges 30/0/300 psi/-40/0/120° F

Stainless steel, removable Bezel Laminated safety glass Lens Pointer Adjustable, black aluminum Connection

Lower back mount with front flange

1/4" NPT for 2 1/2"

1/4" or 1/2" NPT for 4" & 6"

Scale Standard: psi/° F temperature equivalent Accuracy 1% of span ASME B40.1 Grade 1A **Ambient Temp** Glycerine Filled = 30° F to 160° F

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



314D-254/404/6004 page 42 & page 55

# **401A SERIES AGRICULTURAL AMMONIA GAUGE**



Dry, non-fillable gauge for agricultural ammonia applications Black painted steel case, stainless steel internals and steel socket

# **SPECIFICATIONS**

Dial 2 ½" (63 mm), 4" (100 mm) Case Black painted steel, dry non-fillable **Wetted Parts** Stainless steel bourdon tube

Steel connection

Ranges 0/60 psi, 0/160 psi, 0/400 psi

Bezel Removable lens Lens Plastic. twist-off Pointer Black aluminum Connection Lower mount

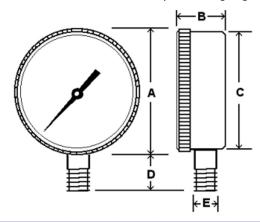
1/4" NPT

Scale Standard: single scale psi

3-2-3% of span, ASME B40.1 Grade B Accuracy

-40° F to 180° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dia	ıl	Unit	Α	В	С	D	E
2.1/	2 ½"	ln.	2.84"	1.18"	2.65"	0.67"	1/4"
2 /:		mm	72	30	67	17	NPT
4"		In.	4.05"	1.40"	3.87"	0.89"	1/4"
	mm	103	36	98	23	NPT	

# STANDARD DIAL CONFIGURATIONS FOR AGRICULTURAL AMMONIA SERIES

Part Number	Dial Size	Dial Range	Figure Intervals	Graduation Intervals
401A-254D	2 ½"	0/60 psi	10 psi	1 psi
401A-254F	2 ½"	0/160 psi	40 psi	5 psi
401A-254I	2 ½"	0/400 psi	100 psi	10 psi
401A-404D	4"	0/60 psi	10 psi	2 psi
401A-404F	4"	0/160 psi	40 psi	5 psi
401A-404I	4"	0/400 psi	100 psi	10 psi



### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
2 ½"	0.25 lbs (0.12 kg)	50			
4"	0.65 lbs (0.30 kg)	upon request			



# **RECTANGLE (EDGE) GAUGE**

Compact rectangle/edge gauge, plastic case, copper alloy wetted parts Suitable for air, water, oil, gas or other media not corrosive to copper alloy

# **SPECIFICATIONS**

**Dial** 1 3/4" x 1/2" horizontal or vertical

Case Plastic, with or without mounting bracket

Wetted Parts Copper alloy

**Ranges** 0/60 psi, 0/100 psi, 0/120 psi

LensPlasticPointerRed plasticConnectionBack mount

10/32" female thread or 1/32" hose barb

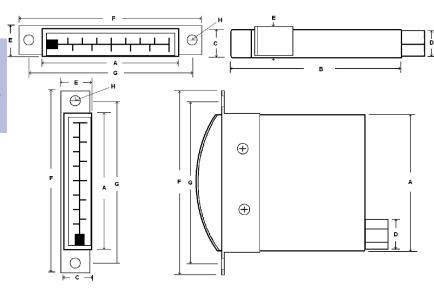
connection

Scale Standard: psi/kg/cm<sup>2</sup>

**Accuracy** 5% of span on ASME B40.1 Grade D

**Ambient Temp** Dry =  $-50^{\circ}$  F to  $160^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Shown with optional panel mount front bracket Hole dimension of bracket is 4.2mm +/-0.01mm

Dial	Unit	Α	В	С	D	E	F	G	Н
1 3/4"	ln.	1.76"	2.28"	0.51"	0.43"	0.55"	2.5"	2.16"	0.17"
1 74	mm	45	58	13	11	14	63.6	55	4.2

# STANDARD CONFIGURATIONS

Part Number	Range	Connection	Bracket
RECT-60FB	0/60 psi	10/32 back	Front
RECT-60NB	0/60 psi	10/32 back	None
RECT-100FB	0/100 psi	10/32 back	Front
RECT-120FB	0/120 psi	10/32 back	Front



#### **AVAILABLE OPTIONS\***

- · Single Scale psi
- Special Connection Size
- Other Ranges
- Other Mounting Options/Styles
  - Front Bracket
  - Rear Bracket
  - Panel Flange
  - Panel Clip

\*Lead times/minimums may apply

# APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Size	Est. Unit Wt.	Box Qty
1 3/4"	0.10 lbs	upon
	(0.04 kg)	request

# **GT SERIES GAS TEST GAUGE**



Utility gas test gauge with horizontal, vertical or bell shaped housing For pressure tests of residential and commercial piping systems

# **SPECIFICATIONS**

Dial 2" (50 mm)

Case Black painted steel, dry non-fillable **Wetted Parts** Copper alloy Bourdon tube & socket

Steel block (Horizontal/vertical chrome plated

Ranges Standard ranges: 0/15 psi to 0/200 psi

Bezel Plastic

Lens Plastic, snap in **Pointer** Black aluminum Connection Lower mount 1/2", 3/4" or 1" FNPT

Scale Standard: single scale psi

Accuracy 3-2-3% of span, ASME B40.1 Grade B

**Ambient Temp** -40° F to 160° F

**Test Block** Steel with valve for pressurization

Design meets or exceeds ASME B40.100 pressure gauge standard.

# **PART NUMBERING SYSTEM**

# HOUSING

**H** = Horizontal V = Vertical

**BELL** = Bell

#### **CONNECTION SIZE**

Copper alloy Internals

Black Steel Case.

1 = 1" FNPT 3/4 = 3/4" FNPT 1/2 = 1/2" FNPT

**SERIES TYPE** 

GT = Gas Test Gauge

2" Dial.

# STANDARD DIAL **CONFIGURATIONS FOR**

GAS TEST SERIES								
Dial Range	Figure Intervals	Graduation Intervals						
0/15 psi	1 psi	0.1 psi						
0/30 psi	5 psi	0.25 psi						
0/60 psi	10 psi	0.5 psi						
0/100 psi	20 psi	1 psi						
0/160 psi	20 psi	2 psi						
0/200 psi	20 psi	5 psi						

**RANGE** 

15 = 0/15 psi

30 = 0/30 psi

60 = 0/60 psi

100 = 0/100 psi

160 = 0/160 psi

200 = 0/200 psi

# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges

\*Lead times/minimums may apply

# **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

#### **HORIZONTAL 2" DIAL SIZE**

1/2" FNPT: 0.65 lbs (0.28 kg)/50 pcs 3/4" FNPT: 0.65 lbs (0.30 kg)/50 pcs 1" FNPT: 0.85 lbs (0.38 kg)/50 pcs

# **VERTICAL 2" DIAL SIZE**

1/2" FNPT: 0.70 lbs (0.32 kg)/50 pcs 3/4" FNPT: 0.65 lbs (0.28 kg)/50 pcs 1" FNPT: 0.85 lbs (0.38 kg)/50 pcs

# **BELL 2" DIAL SIZE**

1/2" FNPT: 0.40 lbs (0.20 kg)/50 pcs 3/4" FNPT: 0.50 lbs (0.22 kg)/50 pcs 1" FNPT: 0.60 lbs (0.26 kg)/50 pcs

NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.



# **GT SERIES GAS TEST GAUGE**

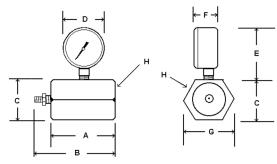
Utility gas test gauge with horizontal, vertical or bell shaped housing For pressure tests of residential and commercial piping systems







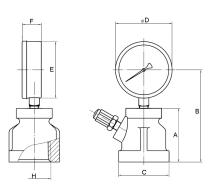
HORIZONTAL DIMENSIONS								
Unit	Α	В	С	D	E	F	G	Н
ln.	2.13"	2.81"	1.10"	2.02"	2.56"	1.03"	1.24"	1/2"
mm	54.10	71.45	27.97	51.35	65.02	26.29	31.5	NPT
ln.	2.13"	2.81"	1.13"	2.02"	2.56"	1.03"	1.33"	3/4"
mm	54.10	71.45	28.8	51.35	65.02	26.29	33.9	NPT
ln.	2.13"	2.81"	1.40"	2.02"	2.56"	1.03"	1.60	1"
mm	54.10	71.45	35.60	51.35	65.02	26.29	40.6	NPT



	VERTICAL DIMENSIONS								
Unit	Α	В	С	D	E	F	G	Н	
ln.	2.13"	2.81"	1.10"	2.02"	2.56"	1.03"	1.24"	1/2"	
mm	54.10	71.45	27.97	51.35	65.02	26.29	31.5	NPT	
ln.	2.13"	2.81"	1.13"	2.02"	2.56"	1.03"	1.33"	3/4"	
mm	54.10	71.45	28.8	51.35	65.02	26.29	33.9	NPT	
ln.	2.13"	2.81"	1.40"	2.02"	2.56"	1.03"	1.60	1"	
mm	54.10	71.45	35.60	51.35	65.02	26.29	40.6	NPT	

	E C		F→
В	* -		
<u>↓</u>	<u>↓</u>	Н	— G →

BELL DIMENSIONS									
Unit	Α	В	С	D	E	F	н		
ln.	1.30"	2.87"	1.22"	2.07"	2.02"	1.11"	1/2"		
mm	33	73	31	52.6	51.2	28.3	NPT		
ln.	1.50"	3.07"	1.48"	2.07"	2.02"	1.11"	3/4"		
mm	38	78	37.5	52.6	51.2	28.3	NPT		
ln.	1.73"	3.31"	1.77"	2.07"	2.02"	1.11"	1"		
mm	44	84	45	52.6	51.2	28.3	NPT		



# **HOSE SERIES HOSE TEST GAUGE**



Utility water test gauge with or without maximum indicating pointer For pressure tests of residential and commercial water lines

### **SPECIFICATIONS**

2 ½" (63 mm) Dial

Case Black plastic, dry non-fillable

Copper alloy **Wetted Parts** 0/300 psi Ranges Bezel Black steel, fixed

Lens Plastic

Black aluminum Pointer Connection Top mount

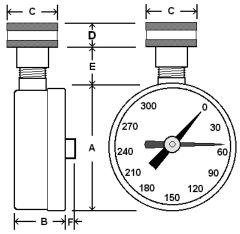
3/4" female Copper alloy swivel connection

Scale Standard: single scale psi

Accuracy 3-2-3% of span, ASME B40.1 Grade B

**Ambient Temp** Dry =  $-40^{\circ}$  F to  $160^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



P/N	Unit	Α	В	С	D	E	F
HOSE	ln.	2.52"	1.11"	1.18"	0.58"	0.81"	N/A
HUSE	mm	64	28	30	15	21	IN/A
HOSE-	ln.	2.52"	1.11"	1.18"	0.58"	0.81"	0.20"
MAX	mm	64	28	30	15	21	5



**HOSE** 

**HOSE-MAX** 

### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size/Location
- Other Ranges

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES				
Dial Size	Est. Unit Wt.	Box Qty		
2 ½"	0.35 lbs (0.16 kg)	50		

One-piece forged Copper alloy gauge designed for long wall mining equipment 0/9000 psi color zone dial and hydraulic quick connect

### **SPECIFICATIONS**

Dial 2" (50 mm), color zones

Red: 0/4000 psi Green: 4000/6000 psi Yellow: 6000/9000 psi

Case Forged Copper alloy, silicone filled

Wetted Parts Copper alloy

**Ranges** 0/9000 psi / 0/600 BAR

Bezel Stainless steel

**Lens** Plastic

Pointer White aluminum Connection Lower mount

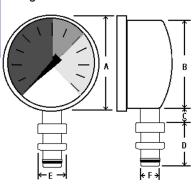
3/8" "Steck-o" type mining industry standard Hydraulic quick connect with Buna N® o-ring &

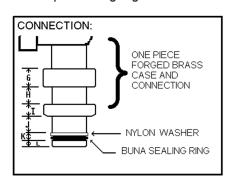
nylon washer, with M3 restrictor screw

Scale Standard: psi/BAR

Accuracy 2-1-2% of span, ASME B40.1 Grade A
Ambient Temp Silicone Filled = -30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.





Dial	Unit	Α	В	С	D	Е	F
2"	ln.	2.10"	1.96"	0.44"	1.13"	0.79"	0.55"
2	mm	53	50	11	29	20	14

Dial	Unit	G	Н	I	J	K	L
2"	ln.	0.30"	0.20"	0.19"	0.19"	0.13"	0.13"
	mm	8	5	5	5	3	3



#### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges

\*Lead times/minimums may apply

# APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Wt.	Box Qty
2"	0.60 lbs (0.26 kg)	50

# 1" MINI BOURDON TUBE **GAUGE**



Miniature gauge for applications where space constraints are a concern Suitable for air, water, oil, gas or other media not corrosive to Copper alloy

# **SPECIFICATIONS**

Dial 1" (25.4 mm)

Case Black plastic, dry non-fillable

**Wetted Parts** Copper alloy

0/30, 0/60, 0/100, 0/160 psi Ranges

Plastic Lens

**Pointer** Black aluminum Center back mount Connection

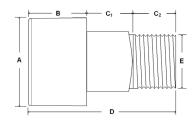
1/8" NPT with 10/32" tap

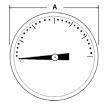
Standard: single scale psi Scale

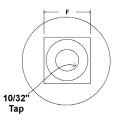
3-2-3% of span, 1" ASME B40.1 Grade B **Accuracy** 

**Ambient Temp** Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.







Dial	Unit	Α	В	C1	C2	D	E	F
1"	ln.	0.98"	0.58"	0.34"	0.28"	1.21"	1/8"	0.47"
ļ ,	mm	25	15	9	7	31	NPT	12

STANDARD PART NUMBERS				
Part Number	Range			
102D-108C	0/30 psi			
102D-108D	0/60 psi			
102D-108E	0/100 psi			
102D-108F	0/160 psi			
102D-108G	0/200 psi			
102D-108H	0/300 psi			



### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges
- Built-in Snubber

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
1"	0.05 lbs (0.02 kg)	upon request			



# 1" HEX GAUGE

Miniature gauge for applications where space constraints are a concern Suitable for air, water, oil, gas or other media not corrosive to Copper alloy

### **SPECIFICATIONS**

Dial 1" (25.4 mm)

Case Nickel plated hex case, dry non-fillable

**Wetted Parts** Copper alloy 0/160 - 0/6000 Ranges

Bezel Fixed Plastic Lens Pointer Yellow

Connection Center back mount

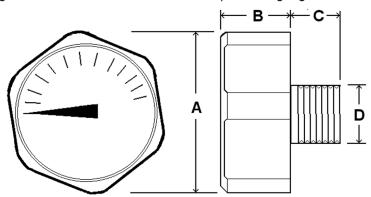
1/8" NPT

Scale Standard: single scale psi

Accuracy 5% of span, ASME B40.1 Grade D

Ambient Temp Dry =  $-50^{\circ}$  F to  $160^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D
1"	ln.	1.00"	0.40"	0.35"	1/8"
1	mm	25	10	9	NPT

STANDARD DIAL CONFIGURATIONS FOR HEX GAUGE SERIES							
Part Number	Dial Range	Figure Intervals	Graduation Intervals				
HEX-108RF	0/160 psi	40 psi	10 psi				
HEX-108RH	0/300 psi	100 psi	20 psi				
HEX-108RJ	0/500 psi	100 psi	20 psi				
HEX-108RL	0/750 psi	200 psi	50 psi				
HEX-108RM	0/1000 psi	200 psi	40 psi				
HEX-108RN	0/1200 psi	400 psi	80 psi				
HEX108RQ	0/4000 psi	1000 psi	200 psi				
HEX-108RR	0/5000 psi	1000 psi	200 psi				
HEX-108RS	0/6000 psi	2000 psi	333 psi				







# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges
- · White Dial Custom Only, Non-Stock Option

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
1"	0.35 lbs (0.16 kg)	upon request			

# **SAE-201L LOWER MOUNT**



Glycerine filled gauge with SAE4 connection Suitable for air, water, oil, gas or other media not corrosive to Copper alloy

# **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Stainless steel, glycerine filled Case

**Wetted Parts** Copper alloy

Ranges 30" Hg Vac/0 - 0/10,000 psi Stainless steel, fixed Bezel

Lens Plastic

Pointer Black aluminum Connection Lower mount

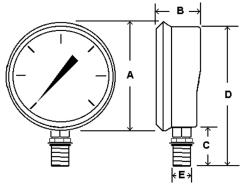
7/16-20 SAE connection with silicon rubber

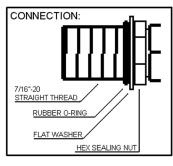
o-ring, washer and lock nut

Scale Standard: dual scale psi/BAR (x 100 = kPa) 2-1-2% of span, ASME B40.1 Grade A **Accuracy** Glycerine Filled = 30° F to 160° F **Ambient Temp** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.





Dial	Unit	Α	В	С	D	E		
2 ½"	ln.	2.80"	1.28"	1.07"	3.55"	7/16 20 545		
2 1/2	mm	71	33	27	90	7/16-20 SAE		

	SAE PART NUMBERS							
Part Number	Dial Range	Part Number	Dial Range					
201L-25XA-SAE4	30/0" Hg vac	201L-25XM-SAE4	0/1000 psi					
201L-25XC-SAE4	0/30 psi	201L-25XN-SAE4	0/1500 psi					
201L-25XD-SAE4	0/60 psi	201L-25XO-SAE4	0/2000 psi					
201L-25XE-SAE4	0/100 psi	201L-25XP-SAE4	0/3000 psi					
201L-25XF-SAE4	0/160 psi	201L-25XQ-SAE4	0/4000 psi					
201L-25XG-SAE4	0/200 psi	201L-25XR-SAE4	0/5000 psi					
201L-25XI-SAE4	0/400 psi	201L-25XS-SAE4	0/6000 psi					
201L-25XJ-SAE4	0/500 psi	201L-25XU-SAE4	0/10,000 psi					
201L-25XK-SAE4	0/600 psi							



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Center Back Mount
- Other Ranges

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
2 ½"	0.45 lbs (0.22 kg)	upon request			



# SPIRAL TUBE GAUGE

Direct drive gauge for applications requiring enhanced durability and repeatability Suitable for air, water, oil, gas or other media not corrosive to Copper alloy

### **SPECIFICATIONS**

1 ½" (36 mm), 1 ½" (42 mm) Dial Case Stainless steel, dry non-fillable

**Wetted Parts** Copper alloy

0/160, 0/300, 0/500, 0/1000, 0/3000 psi Ranges

Lens Plastic

**Pointer** Red aluminum Center back mount Connection

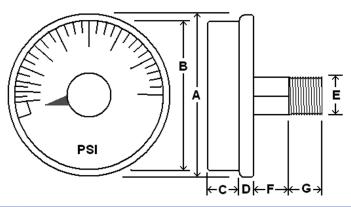
1/8" NPT

Scale Standard: single scale psi

**Accuracy** 5% of span, ASME B40.1 Grade D

**Ambient Temp** 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е	F	G
1 1/4"	ln.	1.40"	1.20"	0.16"	0.25"	1/8"	0.28"	0.32"
I 7/4	mm	36	31	4	7	NPT	7	8
1 ½"	ln.	1.65"	1.46"	0.23"	0.23"	½" NPT	0.23"	0.33"
	mm	42	37	6	6		6	8.5

Contact PIC Gauges for configurations and ordering information



# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
1 1/4"	0.05 lbs (0.02 kg)	upon request			
1 ½"	0.05 lbs (0.02 kg)	upon request			

# SPRINKLER GAUGE



UL listed gauge designed for use on fire protection/sprinkler systems Suitable for air, water, oil, gas or other media not corrosive to Copper alloy

# **SPECIFICATIONS**

3 ½" (88.9 mm), listed/FM Approved Dial

Case Plastic, dry non-fillable

Copper alloy **Wetted Parts** 

0/300 psi Water; 0/80-250 psi Air Retard Ranges

Removable lens **Bezel** Lens Plastic, twist-off **Pointer** Black aluminum Connection Lower mount

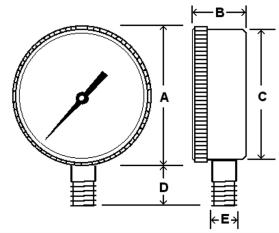
1/4" NPT

Scale Standard: single scale psi

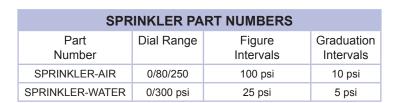
**Accuracy** 3-2-3% of span, ASME B40.1 Grade B

**Ambient Temp** Dry =  $-50^{\circ}$  F to  $160^{\circ}$  F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
3 ½"	ln.	3.85"	1.19"	3.71"	1.08"	1⁄4" NPT
	mm	97.8	30.2	94	28	





# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges
- Repairable

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
3 ½"	0.45 lbs (0.22 kg)	50			



# **40MM POSITIONER GAUGE**

Bourdon tube gauge for applications requiring installation of multiple units Suitable for applications where space constraints are a concern

### **SPECIFICATIONS**

Dial 40 mm

Case Stainless steel, dry yet fillable

**Wetted Parts** 316 Stainless steel

0/30, 0/60, 0/100, 0/160 psi Ranges

Plastic Lens

**Pointer** Black aluminum Center back mount Connection

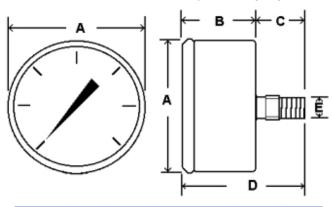
1/8" NPT

Scale Standard: psi/BAR (x 100 = kPa)3-2-3% of span, ASME B40.1 Grade B **Accuracy** 

Dry =  $-30^{\circ}$  F to  $180^{\circ}$  F **Ambient Temp** 

Glycerine Filled = 30° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	Е
40 mm	ln.	1.61"	1.02"	0.84"	1.76"	1/8"
	mm	41	26	21	45	NPT

40MM PART NUMBERS						
Part Number	Dial Range	Figure Intervals	Graduation Intervals			
40MM-SS-C	0/30 psi	5 psi	0.5 psi			
40MM-SS-D	0/60 psi	10 psi	1 psi			
40MM-SS-E	0/100 psi	20 psi	2 psi			
40MM-SS-F	0/160 psi	20 psi	2 psi			







### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Special Accuracy
- Other Ranges
- Copper alloy Internals

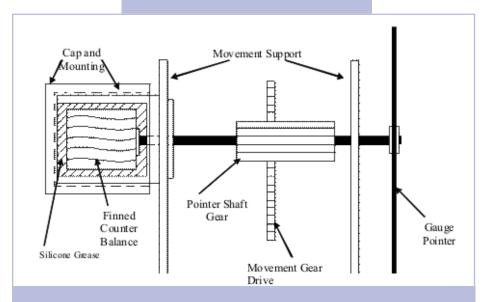
APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Wt.	Box Qty			
40 mm	0.20 lbs (0.08 kg)	50			

# **ANTI-VIBRATION MOVEMENT**



# Creates liquid filled performance in a dry gauge Suitable for rugged applications requiring dry gauges

# **ANTI-VIBRATION MOVEMENT**



A silicone dampened counter weight is attached to the movement, which creates a dampening effect similar to liquid filling, but without the cost and potential problems associated with liquid filling (i.e. browning and leakage).

# **ANTI-VIBRATION ADVANTAGES**

# **AVAILABLE OPTIONS\***

# 1. High Temp/Low Temp Applications

Eliminates risk of liquid filling browning, baking or boiling Removes concern of liquid filling freezing

# 2. Clean Environment Applications

Prevents liquid filling from leaking

# 3. Low Cost Applications

Less expensive gauge can be used (i.e. steel case vs. stainless steel case)

- Various Sizes and Configurations
- **Custom Dials**
- Special Connection Sizes
- Various Ranges
- Repairable



# 1" REGULATOR GAUGE

#### Black ABS case, copper alloy internals

#### **SPECIFICATIONS**

Dial 1" (25.4 mm)

Black ABS case, dry non-fillable Case

**Wetted Parts** Copper alloy Plastic Lens

Black aluminum **Pointer** 

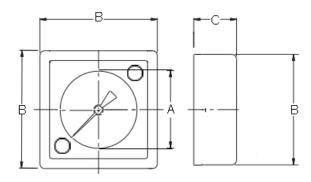
Center back mount, o-ring connection Connection

Scale Standard: single scale psi

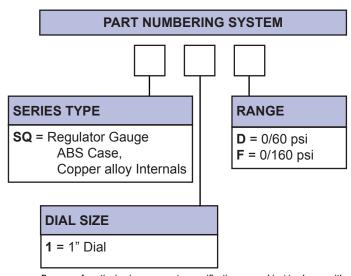
Accuracy 3-2-3% of span ASME B40.1 Grade B

**Ambient Temp** -50° F to 160° F

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С
4"	In.	0.84"	1.07"	0.62"
1"	mm	21	27	16









#### **AVAILABLE OPTIONS\***

- Custom Dial
- Alternate Ranges
- Alternate Scales
- Custom Housing
  - Color
  - Dimensions
  - Mounting Style

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit Wt. **Box Qty** 0.04 lbs upon (0.02 kg)request

Because of continuing improvements, specifications are subject to change without notice. NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

# **FILTER GAUGE**



#### Utility gauge with color zones for optimal filter performance Black steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 1 ½" (40 mm), 2" (50 mm) Black steel, dry non-fillable Case

**Wetted Parts** Copper alloy

30/0" hg Vacuum, 0/60 psi Ranges Bezel Black painted steel, fixed

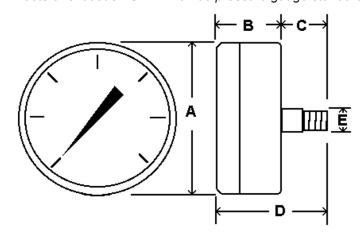
Lens Glass

Pointer Black aluminum Connection Center back mount 1 1/2" dial = 1/4" NPT 2" dial = 1/8" NPT

Scale Standard: psi/BAR (x 100 = kPa) 3-2-3% of span, ASME B40.1 Grade B Accuracy

-50° F to 160° F **Ambient Temp** 

Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E
1 ½"	ln.	1.64"	0.93"	0.63"	1.56"	1⁄8" NPT
l /2	mm	42	24	16	39	/8 INF I
0"	ln.	2.07"	1.03"	0.83"	1.86"	1⁄8" NPT
2"	mm	53	26	21	47	78 INP I

STANDARD PART NUMBERS							
Color Zones							
Part Number	Range	Green	Yellow	Red			
FILTER-158D-CZ1	0/60 psi	0-20	20-25	25-60			
FILTER-208A-CZ1	30/0" hg vac	0-9	9-11	11-30			
FILTER-208A-CZ2	30/0" hg vac	0-4	4-6	6-30			
FILTER-208D-CZ1	0/60 psi	0-20	20-25	25-60			



#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Custom Range
- Anti-Vibration Movement, see page 107
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 119
- Plastic Lens
- Max/Min Pointer, see page 120

\*Lead times/minimums may apply

#### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Dial Size	Est. Unit Weight	Box Qty
1 ½"	0.15 lbs (0.06 kg)	100
2"	0.25 lbs (0.10 kg)	100

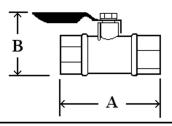


# **GAUGE VALVES**

#### **MINI BALL VALVES**

#### <u>A14</u>

- Ball valve type gauge cock
- ¼" FNPT X ¼" FNPT
- Brass body rating: 700 psi at 250° F
- Est. Unit Wt.: 0.10 lbs/0.06 kg

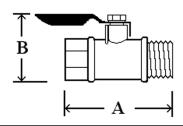


Unit	Α	В
In.	1.60"	1.30"
mm	40	33



#### **A15**

- Ball valve type gauge cock
- ¼" MNPT X ¼" FNPT
- Brass body rating: 700 psi at 250° F
- Est. Unit Wt.: 0.10 lbs/0.06 kg



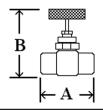
Unit	Α	В
In.	1.60"	1.35"
mm	40	34



#### **BRASS NEEDLE VALVES**

#### **NV-B-1/4**

- Needle valve
- ¼" FNPT X ¼" FNPT (NV-B-1/4-FXF)
- ¼" MNPT X ¼" FNPT (NV-B-1/4-MXF)
- ¼" MNPT X ¼" MNPT (NV-B-1/4-MXM)
- Brass body rating: 600 psi @ 300 °F
- Est. Unit Wt.: 0.25 lbs/0.10 kg



Unit	Α	В
In.	1.62"	1.94"
mm	41	49

Configuration

**FXF** 

MXF

**MXM** 

**Box Qty** 

80

200

20



# **GAUGE VALVES**



#### **GAUGE COCKS**

#### **T-HANDLE COCK - A10**

Material Polished brass

Up to 125 psi hydraulic **Pressure Rating Connection Size** 1/4" FNPT X 1/4" FNPT Est. Unit Wt. 0.15 lbs/0.06 kg



#### **LEVER HANDLE - A11**

Material Polished Brass

**Pressure Rating** Up to 200 psi hydraulic 1/4" MNPT X 1/4" FNPT **Connection Size** Est. Unit Wt. 0.15 lbs/0.06 kg



#### **LEVER HANDLE - A12**

Material Polished Brass

**Pressure Rating** Up to 200 psi hydraulic **Connection Size** 1/4" FNPT X 1/4" FNPT Est. Unit Wt. 0.15 lbs/0.06 kg





# **SYPHON**

#### **SPECIFICATIONS**

Syphons protect instruments from **Purpose** 

effects of hot pressure media commonly

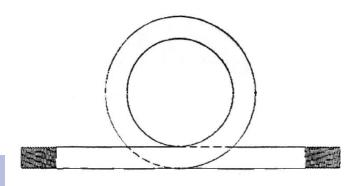
used in steam applications

**Materials** Brass

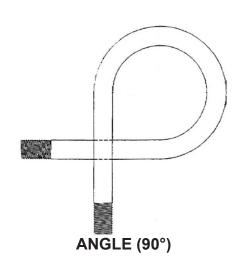
> Steel schedule 40 Steel schedule 80

316 Stainless steel schedule 80









Part Number	Description	Maximum Working Pressure	Max Temp	Est. Unit Wt. Ibs	Est. Unit Wt. kg
A03B	Straight 1/4" NPT Brass syphon	250 psi	400° F	0.45	0.20
A031	Straight 1/4" NPT iron syphon, schedule 40 iron	500 psi	400° F	0.50	0.24
CPS4	Straight 1/4" NPT steel syphon, schedule 80 iron	1000 psi	850° F	0.55	0.24
CPS4-ANGLE	Angle 1/4" NPT steel syphon, schedule 80 iron	1000 psi	850° F	0.45	0.20
CPS2	Straight 1/2" NPT steel syphon, schedule 80 iron	1000 psi	850° F	1.70	0.76
CPSS4	Straight 1/4" NPT stainless steel syphon, 316 ss sched 80	2000 psi	1000° F	0.50	0.22
CPSS2	Straight ½" NPT stainless steel syphon, 316 ss sched 80	2000 psi	1000° F	1.75	0.79

NOTE: Other configurations available upon request.

# **TEST PORT PLUG**



#### **SPECIFICATIONS**

Pressure & Temperature Test Port Plugs **Purpose** 

For permanent installation into piping systems

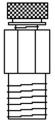
½", ½", ½" NPT Connection Brass body **Materials** 

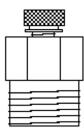
Nordel core 1000 psi at 200° F

**Pressure Rating** Est. Unit Weight 0.15 lbs/0.08 kg



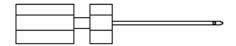






Part Number	Nominal Size	Overall Length	Material	Temperature/ Pressure	Body Hex	Cap Hex	Core Material
PLUG-1/8	1/8" NPT	1 1/4"	Brass	350° F/1000 psi	13/16"	9/16"	Nordel
PLUG-1/4	1/4" NPT	1 ½"	Brass	350° F/1000 psi	1 1/16"	1 ½"	Nordel
PLUG-1/2	½" NPT	1 ½"	Brass	350° F/1000 psi	1 1/16"	1 ½"	Nordel





Adapters for Test Port Plugs				
ADAPTER-PP-1/8	1/6" NPT Gauge adapter 2 3/4" Overall Length x 1 3/4" x 0.125" probe			
ADAPTER-PP-1/4	1/4" NPT Gauge adapter 2 3/4" Overall Length x 1 3/4" x 0.63" probe			





Pressure & Temperature Test Plug Accessories			
PLUG-EXT-1/4	1 ¾" Extension for Test Port Plug (¼" NPT)		
PLUG-EXT-1/2	2" Extension for Test Port Plug (½" NPT)		



# **FILTER TYPE PRESSURE SNUBBER**

#### **SPECIFICATIONS**

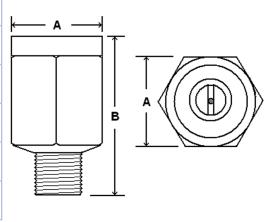
**Purpose** Dampens pressure pulsation and slows the effects of

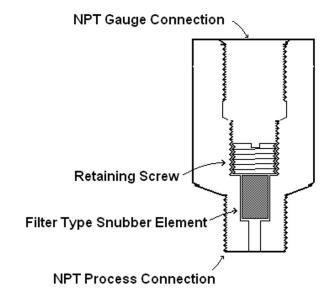
surges or sudden pressure spikes Can be disassembled for cleaning

Water, air, oil, gas Media 1/8", 1/4" or 1/2" NPT Connection Stainless steel, Brass **Materials** Porous element **Design Type** 



Part Number	Description	Units	Α	В	Pressure Rating
BW42-1/8	1/8" NPT MxF Brass	Inches	0.74"	1.35"	2 000 pai
DVV42-1/0	78 INFT WIXE DIASS	mm	18.9	35	3,000 psi
DW/42	BW42 1/4" NPT MxF Brass	Inches	0.75"	1.70"	3,000 psi
74 INF	74 INFT WIXE DIASS	mm	19	43.1	3,000 psi
BW41-1/2	½" NPT MxF Brass	Inches	1.25"	2.25"	10,000 psi
DVV41-1/2		mm	31.7	57.1	10,000 psi
SW42	1/4" NPT MxF	Inches	0.75"	1.70"	5 000 pai
3VV42	Stainless Steel	mm	19	43.1	5,000 psi
A05E	½" NPT MxF	Inches	1.25"	2.25"	10,000 psi
	Stainless Steel	mm	31.7	57.1	10,000 psi





Part Number	Est. Unit Wt. lbs	Est. Unit Wt. kg	Box Qty.
BW42-1/8	0.10	0.04	upon request
BW42	0.10	0.04	500
BW41-1/2	0.25	0.12	upon request
SW42	0.10	0.04	500
A05E	0.25	0.12	upon request

# **ADJUSTABLE PRESSURE SNUBBER**



#### **SPECIFICATIONS**

Adjustable pressure pulsation dampener **Purpose** 

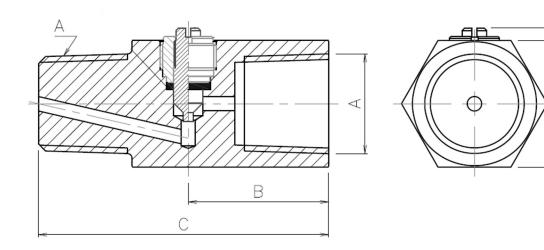
Additionally, flow control can be regulated via

Adjustment knob

Can isolate gauge for service or replacement

1/4" or 1/2" NPT Connection **Materials** 316 Stainless steel **Pressure Rating** 6000 psi maximum Est. Unit Wt. 0.50 lbs/0.22 kg





Part Number	Units	Α	В	С	D	Maximum Pressure	Box Quantity
APS-316-4	Inches	1⁄4" NPT	1.00"	2.05"	1.06"	6000 psi	upon request
AP3-310-4	mm	74 NP1	25	52	27	6000 psi	
ADS 246 2	Inches	½" NPT	1.18"	2.44"	1.06"	6000 psi	32
APS-316-2	mm	/2 INF I	30	62	27	0000 psi	



# **PISTON TYPE SNUBBER**

#### **SPECIFICATIONS**

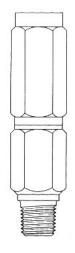
**Purpose** Self cleaning piston type snubber dampens

pressure pulsation and slows the effects of

surges or sudden pressure spikes

Media Water, air, oil, gas 1/4", 3/8" or 1/2" NPT Connection **Materials** Brass, Stainless steel Brass = 3000 psi **Pressure Rating** 

Stainless steel = 10,000 psi





Part Number*	Inlet	Outlet	Body Material	Maximum psi	Ln.	Hex
PPS-B-1/4	1/4" NPT	1/4" NPT	Brass	3000	3.46"	0.75"
PPS-S-1/4	1/4" NPT	1/4" NPT	303 Stainless	5000	3.46"	0.75"
PPS-SS-1/4	1/4" NPT	1/4" NPT	316 Stainless	5000	3.46"	0.75"
PPS-B-3/8	3/8" NPT	3/8" NPT	Brass	5000	3.61"	1.125"
PPS-B-1/2	½" NPT	1⁄2" NPT	Brass	5000	3.61"	1.125"
PPS-S-1/2	1⁄2" NPT	1/2" NPT	303 Stainless	10000	3.61"	1.125"
PPS-SS-1/2	1⁄2" NPT	1⁄2" NPT	316 Stainless	10000	3.61"	1.125"

<sup>\*</sup>Available in British Taper Pipe Threads. Add "BSP" to part number when ordering. Lead times/minimums may apply.

# **COOLING TOWER**



#### **SPECIFICATIONS**

 $300^{\circ}$  F

Designed to protect instruments in high **Purpose** 

temperature applications

Can reduce media temps by up to 150° F, 200° F or 300° F

Connection 1/4" or 1/2" NPT

**Materials** Stainless steel - 316SS

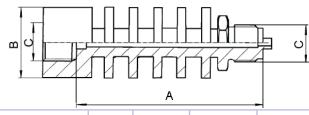
Maximum 300° F/150° C - Cooling factor 150° F/65° C **Temperature Rating** 

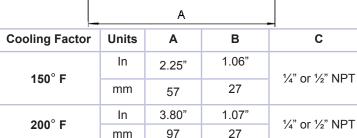
Maximum 400° F/200° C - Cooling factor 200° F/93° C

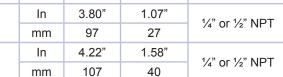
Maximum 600° F/315° C - Cooling factor 300° F/150° C

8,000 PSI for male X male towers **Pressure Rating** 

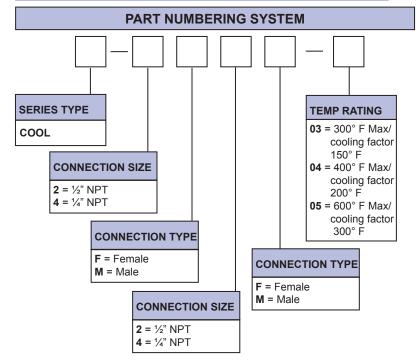
6,600 PSI for the male X female towers







Cooling Factor	Est. Unit Wt. Ibs	Est. Unit Wt. kg
150° F	0.55	0.24
200° F	0.65	0.28
300° F	1.20	0.54





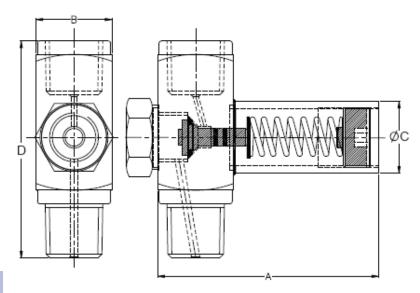
# PRESSURE LIMITING VALVE

#### **SPECIFICATIONS**

**Purpose** Prevent damage to instruments due to sudden

pressure surges

Media Water, air, oil, gas Connection 1/4" or 1/2" NPT **Materials** 316 Stainless steel **Pressure Rating** 6000 psi maximum Est. Unit Weight 1.30 lbs/0.58 kg





Units	Α	В	С	D
Inches	3.50"	1.10"	1.04"	3.14"
mm	89	28	26.5	80

Part Number	Inlet	Outlet
PLV-2M-2F-(Range)	½" male	½" female
PLV-4M-4F-(Range)	1/4" male	1/4" female

Range Code	Adjustment Span					
1	60 to 87 psi	4 to 6 BAR				
2	102 to 232 psi	7 to 16 BAR				
3	145 to 580 psi	10 to 40 BAR				
4	435 to 1160 psi	30 to 80 BAR				
5	870 to 2320 psi	60 to 160 BAR				
6	1450 to 5802 psi	100 to 400 BAR				

#### **AVAILABLE OPTIONS\***

- Special Connection Size
  - BSP
  - Metric
  - Flaired
  - UNF
- Custom Configuration
  - Female x Female
  - Male x Male
- Cleaned for Oxygen Service
- Exotic Materials Include
  - Monel
  - Hastelloy C
- Material Test Certificates
- NACE Conformity

<sup>\*</sup>Lead times/minimums may apply

# **RUBBER GAUGE COVER**



#### **SPECIFICATIONS**

Designed to protect gauges in rugged environments **Purpose** 

Many standard configurations in stock Custom configurations/colors available

Rubber Compound 1 ½", 2", 2 ½", 4 **Materials** Size Lower or Back Mount Connection

















# MAX/MIN POINTER

#### **SPECIFICATIONS**

Indicate maximum or minimum pressure **Purpose** 

achieved in a pressurized system over a

given period

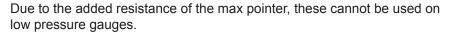
**Lens Material** Plastic or Glass Dial Size 2 ½", 4" or 4 ½"

Lower or Back Mount Connection

Direct or Panel Mounting **Case Styles** Dry or Liquid Filled

The max pointer is a red auxillary pointer with an arm that is pushed by the primary gauge pointer until the gauge pressure drops. The max pointer remains at peak pressure, indicating max pressure achieved.

Conversely, this unit can function similarly as a min pointer on vacuum or compound ranges.





\*Custom dial sizes & configurations available upon request.

#### **EXAMPLES OF GAUGES WITH MAX/MIN POINTERS**





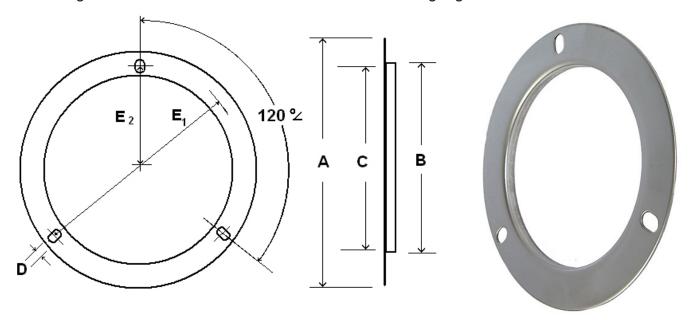




# FRONT AND BACK FLANGES



Stainless steel flanges designed for use with pressure gauges Front flanges can be used with center back mount (CBM) or lower back mount (LBM) connections Back flanges can be used with lower mount or back mount gauges



				DIME	NSIONAL	INFORM	ATION	
			Α	В	С	D	E1	E2
	PART NUMBER	GAUGE MODELS	FLANGE OD	CASE RING OD	CASE RING ID	SCREW HOLE DIAMETER	ON DIAMETER CIRCLE	DISTANCE FROM DIAMETER
1	FLANGE-15-DRY	103D-158	2.22"/56.5 mm	1.66"/42 mm	1.60"/40.7 mm	0.117"/3 mm	1.91"/48 mm	0.96"/24 mm
2	FLANGE-15-LF	202L-158, 302L-158	2.46"/62.5 mm	1.72"/44 mm	1.62"/41 mm	0.125"/3 mm	1.93"/49 mm	0.97"/24.5 mm
3	FLANGE-15-NH	103D-158	2.22"/5.7 mm	1.66"/42 mm	1.60"/40.7 mm	NONE	N/A	N/A
4	FLANGE-20-DRY	102D-20X	2.81"/71.4 mm	2.08"/52.8 mm	2.02"/51.4 mm	0.11"/2.8 mm	2.34"/60 mm	1.17"/30 mm
5	FLANGE-20-LF	202L-20X, 302L-20X, 103D-20X	2.87"/73.1 mm	2.12"/53.9 mm	2.04"/51.9 mm	0.125"/3 mm	2.47"/ 62.8 mm	1.30"/33.0 mm
6	FLANGE-25	202L-254, 212D-254	3.50"/89 mm	2.58"/65 mm	2.49"/63 mm	0.17"/4 mm	3.05"/77 mm	1.52"/39 mm
7	FLANGE-61MM-OBLONG	S202L, 302DFW-254	3.48"/88 mm	2.44"/62 mm	2.38"/60.5 mm	0.17"/4.25 mm	3"/76 mm	1.5"/38 mm
8	FLANGE-62MM	103D-254, PRO-202L-254,	3.46"/88 mm	2.50"/63.6 mm	2.44"/62 mm	0.18"/4.6 mm	2.98"/75.7 mm	1.49"/37.9 mm
9	FLANGE-62MM-NH	302DFW-254, SEC-302DFW-254						
10	FLANGE-64MM-NH	103D-254, PRO-202L-254, 302DFW-254, SEC-302DFW-254	3.43"/87 mm	2.88"/66 mm	2.52"/64 mm	NONE	N/A	N/A
11	FLANGE-35	203D-354	5.17"/131 mm	3.56"/90 mm	3.45"/88 mm	0.21"/5.3 mm	4.57"/116 mm	2.28"/58 mm
12	FLANGE-4	202L-40X	5.14"/130 mm	4.02"/102 mm	3.90"/99 mm	0.22"/5.8 mm	4.49"/114 mm	2.25"/57 mm
13	FLANGE-60	6002, AMMONIA-604	7.63"/193.7 mm	6.35"/161.3 mm	6.25"/158.8 mm	0.188"/4.8 mm	7"/177.8 mm	3.5"/89 mm
14	BACK FLANGE-25	201L-254, 301LFW-254, 202L- 254, 211D-254, 311D-254	3.42"/87 mm	2.58"/65 mm	2.46"/62 mm	0.17"/4.3 mm	2.99"/76 mm	1.50"/38 mm
15	BACK FLANGE-25-SEC	SEC-201L-254, SEC-202L-254, S201L-254	3.12"/79 mm	2.53"/64 mm	2.44"/62 mm	0.17"/4.3 mm	3.14"/80 mm	1.57"/40 mm
16	BACK FLANGE-4	201L, S201L-40X, 301L-40X	5.125"/130.2 mm	3.96"/100.6 mm	3.9"/99.1 mm	0.16"/4.1 mm	4.5"/114 mm	2.25"/57 mm
17	BACK FLANGE-40	4001, 314D-40X	5.25"/133.4 mm	3.98"/100.9 mm	3.88"/98.4 mm	0.188"/4.8 mm	4.56"/116 mm	2.28"/58 mm
18	BACK FLANGE-60	6001, 6002	7.63"/193.7 mm	6.35"/161.3 mm	6.25"/158.8 mm	0.188"/4.8 mm	7"/177.8 mm	3.5"/89 mm
19	FLANGE TO ACCOMPANY P	/N 314D-254(X)	3.45"/87.7mm	2.51"/63.7mm	2.43"/61.7mm	0.19"/5mm	3.16"/80.3mm	1.58"/40.1mm
20	FLANGE TO ACCOMPANY P/N 314D-404X(X)		5.23"/132.9mm	3.95"/100.3mm	3.81"/96.9mm	0.18"/4.5mm	4.50"/114.3mm	2.25"/57.3mm
21	BACK FLANGE TO ACCOMPANY P/N 115D-454(X)		5.87"/149mm	N/A	N/A	0.27"/7mm	5.36"/136.4mm	2.68"/68.2mm
22	BACK FLANGE TO ACCOMP	ANY P/N 115D-604(X)	7.42"/188mm	N/A	N/A	0.27"/7mm	6.70"/170.6mm	3.35"/85.3mm
23	BACK FLANGE TO ACCOMP	ANY P/N 115D-854(X)	10.3"/260mm	N/A	N/A	0.23"/6mm	8.74"/222.2mm	4.37"/111.1mm



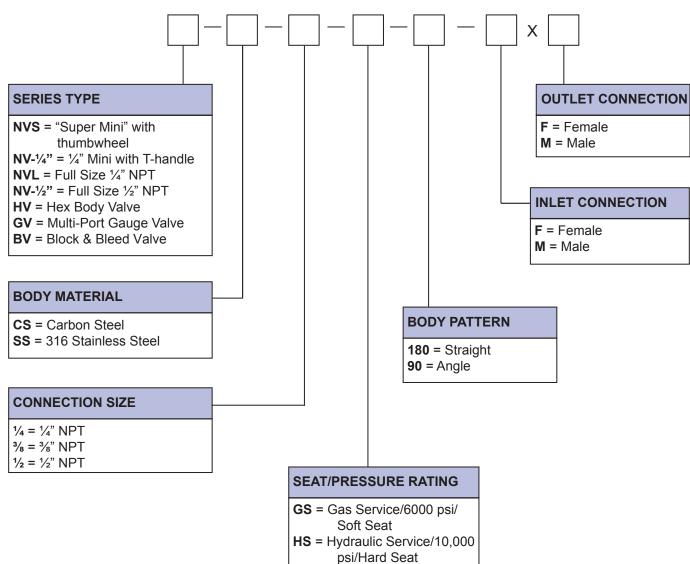
# **NEEDLE VALVES**

Instrumentation grade needle valves are designed for heavy duty process applications or other industrial applications that require high pressure carbon steel or stainless steel shut off valves. PIC Gauges stocks a wide variety of needle valve configurations.

6000PSI	6000PSI		edger's)
NVS "SUPER MINI"	NV-1/4	NV/NVL	NV-90 ANGLE
HV HEX BODY	BV BLOCK & BLEED VALVE	GV MULTI-PORT	PANEL MOUNT

# **NEEDLE VALVE PART NUMBERING SYSTEM**





#### EXAMPLE: "NVS-CS-1/4-GS-180-MXF"

NVS = "Super Mini" with thumbwheel

**CS** = Carbon Steel

 $\frac{1}{4} = \frac{1}{4}$ " NPT

GS = Gas Service/6000 psi/Soft Seat

180 = Straight

M = Male Inlet

**F** = Female Outlet



NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.





# NVS "SUPER MINI" NEEDLE VALVE

# Strong and Durable, Super Compact Size Needle Valve Pressures up to 6,000 psi

#### **SPECIFICATIONS**

Series Number "NVS"

Material Carbon steel or 316 stainless steel

See chart below for component materials

Pressure Rating Soft seat - 6000 psi at 200° F

**Connection Size** 1/4" NPT, male x female, female x female

male x male

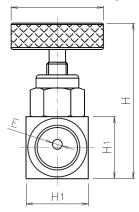
Handle Round "thumb wheel"
Seat Material Soft Seat - POM

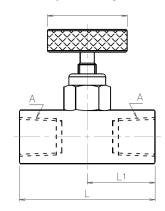
**Box Quantity** 80 pieces **Est. Unit Weight** 0.30 lb/0.16 kg

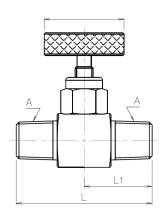


Part Number	Unit	А	L	L1	Н	H1	E	Thumb Wheel
NVS-CS-1/4GS-180-MXF	In.	1/4"	1.85"	0.93"	1.97"	0.75"	0.13"	1.02"
NVS-SS-1/4GS-180-MXF	mm	mm NPT	47	23.5	50	19	3.3	26
NVS-CS-1/4GS-180-FXF	In.	1/4"	1.85"	0.93"	1.97"	0.75"	0.13"	1.02"
NVS-SS-1/4GS-180-FXF	mm	NPT	47	23.5	50	19	3.3	26
NVS-CS-1/4-GS-180-MXM	In.	1/4"	1.85"	0.93"	1.97"	0.75"	0.13"	1.02"
	mm	NPT	47	23.5	50	19	3.3	26

All dimensions shown in the catalog are approximate and subject to change.







4
5 3
7 1 2 1
6
9 (10) L L1
L

Number	Description	316 Valve	Carbon Steel Valve
1	Body	316 SS	C.S.
2	Bonnet	316 SS	C.S.
3	Stem	316 SS	304 SS
4	Handle	303 SS	C.S.
5	Fixing Screw	302 SS	C.S.
6	O-Ring	Viton®	Viton®
7	O-Ring	Viton®	Viton®
8	Back-up Ring	PTFE	PTFE
9	Washer	316 SS	316 SS
10	Soft Seat	POM	POM

#### **AVAILABLE OPTIONS\***

- High Temperature
- T-handle
- Hard Seat
- Angle Valve (90°)
- Tube End Connection
- Alternate Connection Sizes
- \*Lead times/minimums may apply

# NV-1/4 MINI NEEDLE VALVE

#### Strong and Durable, Compact Size Needle Valve Pressures up to 6,000 psi soft seat, 10,000 psi hard seat

#### **SPECIFICATIONS**

"NV" **Series Number** 

Material Carbon steel or 316 stainless steel

See chart below for component materials

Soft seat - 6000 psi at 200° F **Pressure Rating** 

Hard seat - 10,000 psi at 200° F

**Connection Size** 1/4" NPT, male x female, female x female

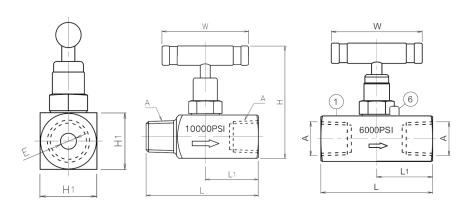
male x male

Handle Tee

Seat Material Soft Seat - POM

Hard Seat - Integrated

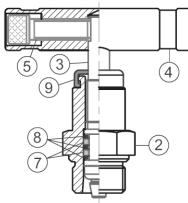
**Box Quantity** 60 pieces Est. Unit Weight 0.40 lb/0.20 kg



Part Number	Unit	Α	L	L1	Н	H1	Е	W
NV-SS-1/4-GS-180-MXF NV-SS-1/4-GS-180-FXF NV-SS-1/4-HS-180-MXF NV-SS-1/4-HS-180-FXF	ln.	1/4"	2.28"	1.14"	2.48"	0.75"	0.17"	1.81"
NV-CS-1/4-GS-180-MXF NV-CS-1/4-GS-180-MXM NV-CS-1/4-GS-180-FXF NV-CS-1/4-HS-180-MXF NV-CS-1/4-HS-180-FXF	mm	NPT	58	29	63	19	4.2	46

All dimensions shown in the catalog are approximate and subject to change.





Number	Description	316 Valve	Carbon Steel Valve
1	Body	316 SS	C.S.
2	Bonnet	316 SS	C.S.
3	Stem	316 SS	304 SS
4	Handle	303 SS	C.S.
5	Fixing Screw	302 SS	C.S.
6	Lock Pin	303 SS	C.S.
7	O-Ring	Viton®	Viton®
8	Back-up Ring	PTFE	PTFE
9	Dust Cap	NBR	NBR

#### **AVAILABLE OPTIONS\***

- High Temperature
- Thumb Wheel Handle
- Panel Mount
- Bleed Screw
- Tube End Connection
- Alternate Connection Sizes

# **NV/NVL FULL SIZE NEEDLE VALVE**

Strong and Durable, Full Size Needle Valve Pressures up to 6,000 psi soft seat, 10,000 psi hard seat

#### **SPECIFICATIONS**

"NV" or "NVL" (1/4") **Series Number** 

Material Carbon steel or 316 stainless steel

See chart below for component materials

**Pressure Rating** Soft seat - 6000 psi at 200° F

Hard seat - 10,000 psi at 200° F

**Connection Size** NV - 1/2" NPT, 3/8" NPT (316 SS only)

NVL - 1/4" NPT

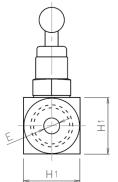
For 3/4" or 1" sizes, see HV series page 128-129

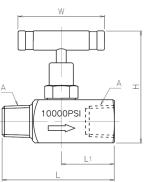
male x female, female x female

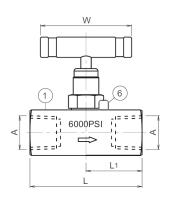
Handle

**Seat Material** Soft Seat - POM

**Box Quantity** 15 pieces **Est. Unit Weight** 1.20 lb/0.54 kg

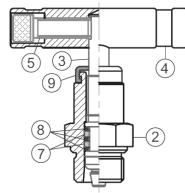






Soft Seat Part Number	Unit	Α	L	L1	Н	H1	Е	W
NVL-SS-1/4-GS-180-MXF NVL-CS-1/4-GS-180-MXF	In.	1/4",	3.23"	1.38"	3.03"	1.14"	0.18"	2.24"
NV-SS-3/8-GS-180-MXF NV-SS-1/2-GS-180-MXF NV-CS-1/2-GS-180-MXF	mm	3/8", 1/2" NPT	82	35	77	29	4.5	57
NVL-CS-1/4-GS-180-FXF NV-SS-3/8-GS-180-FXF	ln.	1/4",	2.95"	1.38"	3.03"	1.14"	0.18"	2.24"
NV-SS-1/2-GS-180-FXF NV-CS-1/2-GS-180-FXF	mm	3/8", 1/2" NPT	75	35	77	29	4.5	57
Hard Seat Part Number	Unit	Α	L	L1	Н	H1	Е	W
NVL-SS-1/4-HS-180-MXF NVL-CS-1/4-HS-180-MXF	ln.	1/4",	3.23"	1.38"	3.03"	1.14"	0.24"	2.24"
NV-SS-3/8-HS-180-MXF NV-CS-1/2-HS-180-MXF NV-SS-1/2-HS-180-MXF	mm	3/8", 1/2" NPT	82	35	77	29	6	57
NV-SS-3/8-HS-180-FXF NV-CS-1/2-HS-180-FXF	ln.	3/8", 1/2"	2.95"	1.48"	3.03"	1.14"	0.24"	2.24"
14 V-00-1/2-110-100-1 //		NPT						





Number	Description	316 Valve	Carbon Steel Valve
1	Body	316 SS	C.S.
2	Bonnet	316 SS	C.S.
3	Stem	316 SS	304 SS
4	Handle	303 SS	C.S.
5	Fixing Screw	302 SS	C.S.
6	Lock Pin	303 SS	C.S.
7	O-Ring	Viton®	Viton®
8	Back-up Ring	PTFE	PTFE
9	Dust Cap	NBR	NBR

#### **AVAILABLE OPTIONS\***

- High Temperature
- Panel Mount
- Bleed Screw
- Tube End Connection
- Alternate Connection Sizes
- See HV for Additional Configurations,

p. 124-125

All dimensions shown in the catalog are approximate and subject to change.

\*Lead times/minimums may apply A Division of Engineered Specialty Products, Inc.

# **NV-90 ANGLE NEEDLE VALVE**



Strong and Durable, Angle Needle Valve Pressures up to 6,000 psi soft seat, 10,000 psi hard seat

#### **SPECIFICATIONS**

"NV-90" **Series Number** 

Material Carbon steel or 316 stainless steel

See chart below for component materials

Soft seat - 6000 psi at 200° F **Pressure Rating** 

Hard seat - 10,000 psi at 200° F

**Connection Size** 1/4" or 1/2" NPT

male x female, female x female

Handle Tee

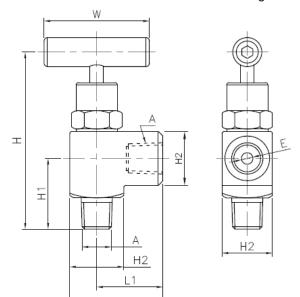
**Seat Material** Soft Seat - POM; Hard Seat - Integrated

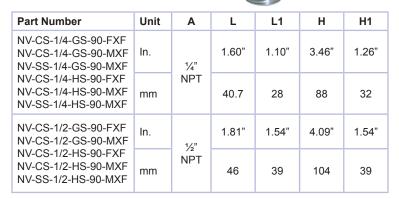
1/4": 50 pieces **Box Quantity** 

1/2": 15 pieces

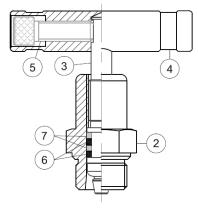
Est. Unit Weight 1/4": 0.55 lb/0.26 kg

½": 1.05 lb/0.46 kg





Part Number (Cont'd)	Unit	Α	H2	Е	W
NV-CS-1/4-GS-90-FXF NV-CS-1/4-GS-90-MXF NV-SS-1/4-GS-90-MXF	ln.	1/4"	0.87"	0.13"	1.81"
NV-CS-1/4-HS-90-FXF NV-CS-1/4-HS-90-MXF NV-SS-1/4-HS-90-MXF	mm	NPT	22	3.3	46
NV-CS-1/2-GS-90-FXF NV-CS-1/2-GS-90-MXF NV-CS-1/2-HS-90-FXF	ln.	1/2"	0.79"	1.26"	2.24"
NV-CS-1/2-HS-90-MXF NV-SS-1/2-HS-90-MXF	mm	NPT	32	32	57



Number	Description	316 Valve	Carbon Steel Valve
1	Body	316 SS	C.S.
2	Bonnet	316 SS	C.S.
3	Stem	316 SS	304 SS
4	Handle	303 SS	C.S.
5	Fixing Screw	302 SS	C.S.
6	O-Ring	Viton®	Viton®
7	Back-Up Ring	PTFE	PTFE

All dimensions shown in the catalog are approximate and subject to change.

#### **AVAILABLE OPTIONS\***

- High Temperature
- Panel Mount
- Bleed Screw
- Tube End Connection
- Alternate Connection Sizes



# **HV HEX BODY - SOFT SEAT NEEDLE VALVE**

Strong and durable, instrument grade hex body needle valve with soft seat Pressures up to 6,000 psi soft seat

#### **SPECIFICATIONS**

"HV" **Series Number** 

Material Carbon steel or 316 stainless steel body

Soft seat - 6000 psi at 200° F **Pressure Rating** 

1/4", 1/2", 3/4" or 1" NPT **Connection Size** 

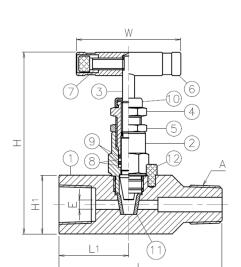
male x female, female x female

Handle Tee

Soft Seat - POM **Seat Material** 

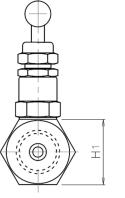
**Box Quantity** Standard: 15 pieces; 1": 10 pieces

Standard: 1.25 lb/0.58 kg; 1": 1.75 lb/0.80 kg **Est. Unit Weight** 



Number	Description	316SS Valve	Carbon Steel Valve
1	Body	S316	C.S.
2	Bonnet	S316	C.S.
3	Stem	S316	S304
4	Adjuster	S316	C.S.
5	Lock Nut	S316	C.S.
6	Handle	S303	C.S.
7	Fixing Screw	S302	C.S.
8	Stem Seal	PTFE	PTFE
9	Stem Seal	Viton®	Viton®
10	Dust Cap	NBR	NBR
11	Soft Seat	POM	POM
12	Locking Pin	S303	S303





		-		L			
Soft Seat Part Numbers	Unit	L	L1	Н	H1	E	W
HV-(X)S-1/4-GS-180-MXF 1/4" NPT HV-(X)S-1/2-GS-180-MXF 1/2" NPT	ln.	3.2"	1.4"	3.9"	1.3"	0.2"	2.2"
HV-(X)S-3/4-GS-180-MXF 3/4" NPT	mm	82	35	98	32	6	57
HV-(X)S-1/4-GS-180-FXF 1/4" NPT HV-(X)S-1/2-GS-180-FXF 1/2" NPT	ln.	3.0"	1.5"	3.9"	1.3"	0.2"	2.2"
HV-(X)S-3/4-GS-180-FXF 3/4" NPT	mm	75	37.5	98	32	6	57
HV-(X)S-1-GS-180-MXF 1" NPT	ln.	3.7"	1.6"	4.4"	1.6"	0.3"	2.2"
	mm	95	41.5	112	41	7	57
HV-(X)S-1-GS-180-FXF 1" NPT	ln.	3.1"	1.6"	4.4"	1.6"	0.3"	2.2"

(X)=C or SC = Carbon Steel S = 316 Stainless Steel

All dimensions shown in the catalog are approximate and subject to change.

#### **AVAILABLE OPTIONS\***

80

- High Temperature
- NACE

mm

- Tube End Connection
- Alternate Connection Sizes

\*Lead times/minimums may apply

40

112

57

# **HV HEX BODY - HARD SEAT NEEDLE VALVE**



Strong and durable, instrument grade hex body needle valve with hard seat Pressures up to 10,000 psi hard seat

#### **SPECIFICATIONS**

**Series Number** "HV"

Material Carbon steel or 316 stainless steel body

**Pressure Rating** Hard seat - 10,000 psi at 200° F

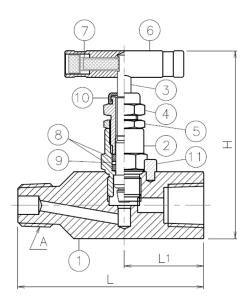
1/4", 1/2", 3/4" or 1" NPT **Connection Size** 

male x female, female x female

Handle

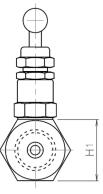
Standard: 15 pieces; 1": 10 pieces **Box Quantity** 

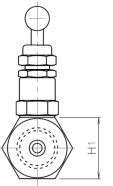
Est. Unit Weight Standard: 1.25 lb/0.58 kg; 1": 1.75 lb/0.80 kg

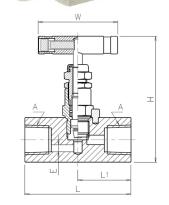


Number	Description	316SS Valve	Carbon Steel Valve
1	Body	S316	C.S.
2	Bonnet	S316	C.S.
3	Stem	S316	S304
4	Adjuster	S316	C.S.
5	Lock Nut	S316	C.S.
6	Handle	S303	C.S.
7	Fixing Screw	S302	C.S.
8	Stem Seal	PTFE	PTFE
9	Stem Seal	Viton®	Viton®
10	Dust Cap	NBR	NBR
11	Locking Pin	S303	S303

All dimensions shown in the catalog are approximate and subject to change.







Hard Seat Part Number	Unit	L	L1	Н	H1	E	W
HV-(X)S-1/4-HS-180-MXF 1/4" NPT HV-(X)S-1/2-HS-180-MXF 1/2" NPT	ln.	3.2"	1.4"	3.9"	1.3"	0.2"	2.2"
HV-(X)S-3/4-HS-180-MXF 3/4" NPT	mm	82	35	98	32	4.8	57
HV-(X)S-1/4-HS-180-FXF 1/4" NPT HV-(X)S-1/2-HS-180-FXF 1/2" NPT	ln.	3.0"	1.5"	3.9"	1.3"	0.2"	2.2"
HV-(X)S-3/4-HS-180-FXF 3/4" NPT	mm	75	37.5	98	32	4.8	57
HV-(X)S-1-HS-180-MXF 1" NPT	ln.	3.7"	1.6"	4.4"	1.6"	0.3"	2.2"
	mm	95	41.5	112	41	7	57
HV-(X)S-1-HS-180-FXF 1" NPT	ln.	3.1"	1.6"	4.4"	1.6"	0.3"	2.2"
	mm	80	40	112	41	7	57

(X)=C or SC = Carbon Steel S = 316 Stainless Steel

#### **AVAILABLE OPTIONS\***

- High Temperature
- NACE
- Tube End Connection
- Alternate Connection Sizes



# **BV BLOCK & BLEED VALVE**

Strong and durable, instrument grade hex body needle valve with bleed screw Pressures up to 6,000 psi soft seat, 10,000 psi hard seat

#### **SPECIFICATIONS**

**Pressure Rating** 

"BV" **Series Number** 

316 Stainless steel body Material

6000 psi soft seat

10,000 psi hard seat

1/4" NPT or 1/2" NPT **Connection Size** 

male x female

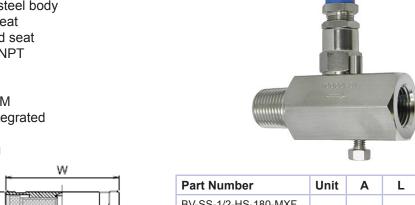
Handle

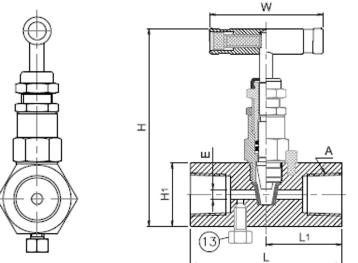
**Seat Material** Soft Seat - POM

Hard Seat - Integrated

**Box Quantity** 

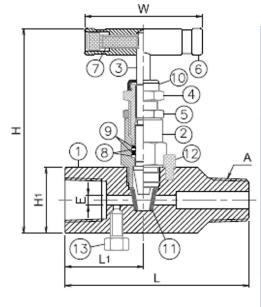
Est. Unit Weight 1.25 lb/0.56 kg





Part Number	Unit	Α	L	L1	Н
BV-SS-1/2-HS-180-MXF BV-SS-1/4-HS-180-MXF	ln.	1/4"	3.23"	1.38"	1.50"
BV-SS-1/2-GS-180-MXF BV-SS-1/4-GS-180-MXF	mm	or 1/2"	82	35	98
Part Number (Cont'd)	Unit	H1	Е	W	
BV-SS-1/2-HS-180-MXF BV-SS-1/4-HS-180-MXF	ln.	1.26"	0.18"	2.24"	
BV-SS-1/2-GS-180-MXF BV-SS-1/4-GS-180-MXF	mm	32	4.8	57	

Part Number	Unit	Α	L	L1	Н
BV-SS-1/2-HS-180-FXF BV-SS-1/4-HS-180-FXF	ln.	1/4" or	2.95"	1.47"	1.50"
DV 00 1/4 110 100 1 XI	mm		75	37.5	98
Part Number (Cont'd)	Unit	H1	Е	W	
Part Number (Cont'd) BV-SS-1/2-HS-180-FXF BV-SS-1/4-HS-180-FXF	Unit In.	<b>H1</b> 1.26"	<b>E</b> 0.18"	<b>W</b> 2.24"	



Number	Description	316SS Valve
1	Body	S316
2	Bonnet	S316
3	Stem	S316
4	Adjuster	S316
5	Lock Nut	S316
6	Handle	S303
7	Fixing Screw	S302
8	Stem Seal	PTFE
9	Stem Seal	Viton®
10	Dust Cap	NBR
11	Soft Seat	POM
12	Locking Pin	S303
13	Bleeding Screw	S316

All dimensions shown in the catalog are approximate and subject to change.

#### **AVAILABLE OPTIONS\***

- High Temperature
- Tube End Connection
- Alternate Connection Sizes
- Carbon Steel Material
- Female x Female Connection

\*Lead times/minimums may apply

A Division of Engineered Specialty Products, Inc.

# **GV MULTI-PORT GAUGE VALVE**



Strong and durable, instrument grade multi-port gauge valve Pressures up to 6,000 psi soft seat, 10,000 psi hard seat

#### **SPECIFICATIONS**

**Series Number** "GV"

Material 316 Stainless steel body **Pressure Rating** 6000 psi soft seat

10,000 psi hard seat

½" NPT male inlet x (3) ½" NPT female outlet **Connection Size** 

3/4" NPT male inlet x (3) 1/2" NPT female outlet

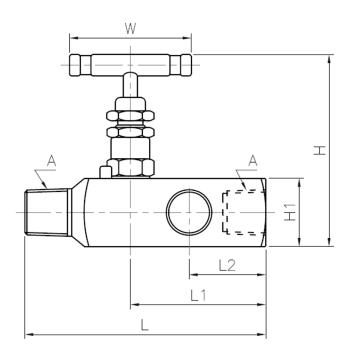
Handle Tee

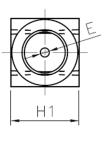
Seat Material Soft Seat - POM

Hard Seat - Integrated

**Box Quantity** 

**Est. Unit Weight** 1.80 lb/0.80 kg







OPTIONAL BLEED VALVE ACCESSORY					
FIXING SCREW  — HANDLE  STEM — LOCK NUT — BODY — 1/2"-NPT					

P/N: BLEED VALV	E
-----------------	---

Part Number	Unit	Α	L	L1	L2	Н	H1	Е	W
GV-SS-1/2-HS-3W-MXF GV-SS-3/4-HS-3W-MXF	ln.	1/2" or	4.45"	2.50"	1.42"	3.86"	1.26"	0.24"	2.24"
	mm	3/4"	113	63.5	36	98	32	6	57
GV-SS-1/2-GS-3W-MXF GV-SS-3/4-GS-3W-MXF	ln.	1/2"	4.45"	2.50"	1.42"	3.86"	1.26"	0.19"	2.24"
	mm	or 3/4"	113	63.5	36	98	32	4.8	57

All dimensions shown in the catalog are approximate and subject to change.

#### **AVAILABLE OPTIONS\***

- High Temperature
- Bleed Valve
- Hex Plug
- Tube End Connection
- Alternate Connection Sizes
- Carbon Steel Material



### DIAPHRAGM SEALS

Diaphragm seals, also referred to as isolators or chemical seals, are used to protect instruments from viscous, corrosive or very high temperature process media. PIC Gauges stocks, fills and calibrates complete diaphragm seal assemblies in a wide variety of configurations.



M3500 SERIES **MINI SEALS** Low cost for small instruments Dial size up to 3 1/2"



M4500 SERIES **MINI SEALS** Low cost for medium to large Dial size up to 4 1/2"



**MLP SERIES MINI LOW PRESSURE** Large area diaphragm for low pressures & vacuum



**MHP SERIES** MINI HIGH PRESSURE Mini diaphragm seal for pressures up to 6000 psi



LARGE THREADED Most versatile for all applications



THREADED FLUSH Mini seal - threaded male connection with flush diaphragm



**SANITARY** Tri-Clamp® /Cherry-Burrell®, etc. Food & pharmaceutical Designed for easy cleaning



**FLANGED CONNECTION** Raised face or flat face pressure from 150# to 2500#



SADDLE WELD Weld-in saddle mount







**SPECIAL SEALS** PTFE, homogenizer, single flange or other custom designs



FILLING/CALIBRATION Using any fill fluid suitable for the application. See page 149 for available options.

# **DIAPHRAGM SEALS**

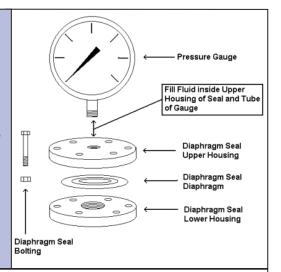


#### Considerations when selecting diaphragm seals

Diaphragm seal assemblies consist of a pressure instrument, system fill and the diaphragm seal itself. Diaphragm seal assemblies can be made with a variety of instruments, connections and materials.

Diaphragm seals are commonly made of stainless steel; however, various materials from carbon steel to Hastelloy® C276 are available to meet the demands of a wide range of applications.

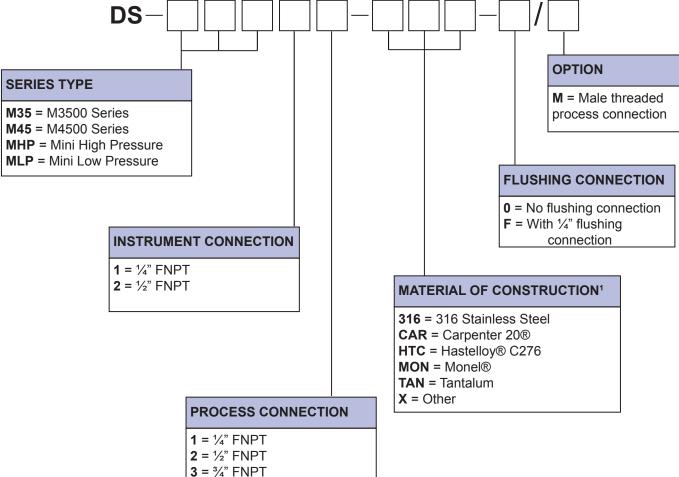
It is important to know as much about the application as possible to ensure that the correct materials are selected for the diaphragm seal assembly.



PROCESS MEDIA	In selecting a diaphragm seal, the process media is a top concern. Media composition, ambient and operating temperature, and maximum working pressure are of particular importance in determining the construction of a diaphragm seal system.
UPPER HOUSING & INSTRUMENT CONNECTION	Typically a support structure for the pressure gauge, the upper housing does not come into direct contact with the process media. Materials of construction include carbon steel, 316 stainless steel and other custom alternatives. The upper housing holds the instrument connection, which is available in a variety of sizes, including NPT and metric.
DIAPHRAGM	The diaphragm is the isolating device between the process media and the pressure instrument. Since the diaphragm comes in direct contact with the process media, the selection of the diaphragm material depends upon the media being measured and the pressure rating.
LOWER HOUSING & PROCESS CONNECTION	Also in direct contact with the process media, the lower housing must be compatible with the process being measured. PIC Gauges offers a variety of metallic and non-metallic lower housings. The process connection is contained within the lower housing and includes threaded, flanged, clamped or other custom connections.
TEMPERATURE	Ambient and operating temperature should be known when determining the appropriate materials and fill fluid. For process temperatures over 212° F, a capillary or cooling element is recommended.
FILL FLUID COMPATIBILITY	For the fill fluid, it is critical to select materials that are compatible with the process media in order to avoid chemical volatility in the case of diaphragm rupture. In food processing applications, a nontoxic fluid should be selected.
OTHER REMAINING FACTORS	In addition to the above items, consideration should be given to the following: mounting position, response time, maximum pressure ratings, o-ring and gasket materials, bolting materials for flanged connections and more. For further technical assistance, please contact PIC Gauges.

NOTE: The above information is for reference only and is not a comprehensive guide. Please contact your PIC Gauges representative with any questions.

# MINI DIAPHRAGM SEAL PART NUMBERING SYSTEM



#### EXAMPLE: "DS-M3512-316-F"2

**DS** = Diaphragm Seal

M35 = M3500 Series

1 = 1/4" FNPT

2 = 1/2" FNPT

316 = 316 Stainless steel

F = With 1/4" flushing connection



Consult PIC Gauges for other materials of construction.

Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

4 = 1" FNPT



# M3500 SERIES MINI DIAPHRAGM SEAL



#### Threaded mini diaphragm seal for dial sizes up to 3 1/2" Compact, durable all-welded construction

#### **SPECIFICATIONS**

Diaphragm, upper and lower housing welded Design Instruments Gauges, pressure transducers, transmitters Appropriate Dial Size 1 ½" (38 mm) through 3 ½" (88.9 mm)

**Pressures** 60 psi through 2500 psi Standard: 316 stainless steel **Upper Housing** 

Optional: Monel®, Hastelloy® C276, Tantalum

Diaphragm Standard: 316 stainless steel

Optional: Monel®, Hastelloy® C276, Tantalum

**Lower Housing** Standard: 316 stainless steel

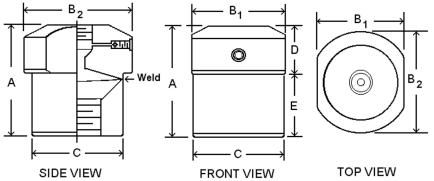
Optional: Monel®, Hastelloy® C276, Tantalum

1/4" FNPT, 1/2" FNPT, 3/4" FNPT **Process Connection** 

Instrument Connection 1/4" FNPT, 1/2" FNPT

Process Temperature<sup>1</sup> -49°F to 400°F (-45°C to 204°C)

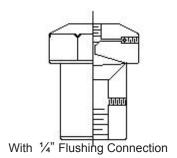




#### **AVAILABLE OPTIONS\***

- Flushing (½") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- Custom upper/lower/diaphragm materials

Diaphragm Seal	Unit	Α	B1	B2	С	D	E
Ctandard	In.	1.50"	1.60"	1.73"	1.49"	0.67"	0.81"
Standard	mm	38	41	44	38	17	21
With Flushing	ln.	1.91"	1.60"	1.73"	1.49"	0.63"	1.35"
Connection	mm	49	41	44	38	16	34



<sup>1.</sup> Process Temperature Rating can vary based on materials of construction, system fill fluid and pressure gauge selection.



# **M4500 SERIES** MINI DIAPHRAGM SEAL

#### Threaded mini diaphragm seal for dial sizes up to 4 ½" Compact, durable all-welded construction

#### **SPECIFICATIONS**

Diaphragm, upper and lower housing welded Design Instruments Gauges, pressure transducers, transmitters

**Appropriate Dial Size** Sizes through 4 ½" (114 mm) **Pressures** 30 psi through 2500 psi Standard: 316 stainless steel **Upper Housing** 

Optional: Monel®, Hastelloy® C276, Tantalum

Diaphragm Standard: 316 stainless steel

Optional: Monel®, Hastelloy® C276, Tantalum

**Lower Housing** Standard: 316 stainless steel

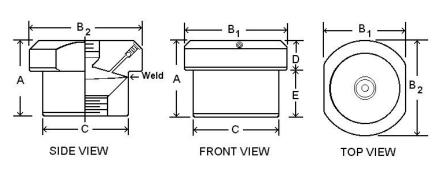
Optional: Monel®, Hastelloy® C276, Tantalum

1/4" FNPT, 1/2" FNPT, 3/4" FNPT, 1" FNPT **Process Connection** 

Instrument Connection ¼" FNPT, ½" FNPT

Process Temperature<sup>1</sup> -49°F to 750°F (-45°C to 399°C)

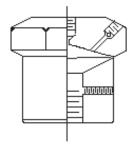




#### **AVAILABLE OPTIONS\***

- Flushing (¼") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- Custom upper/lower/diaphragm materials

Diaphragm Seal	Unit	Α	B1	B2	С	D	E
Standard	ln.	1.48"	2.35"	2.48"	1.91"	0.65"	0.83"
Standard	mm	38	60	63	49	17	21
With Flushing	In.	1.94"	2.28"	2.48"	1.91"	0.63"	1.31"
Connection	mm	49	58	63	49	16	33



With 1/4" Flushing Connection

<sup>1.</sup> Process Temperature Rating can vary based on materials of construction, system fill fluid and pressure gauge selection.

# MHP MINI HIGH PRESSURE **DIAPHRAGM SEAL**



#### Threaded mini diaphragm seal for high pressure applications Compact, durable all-welded construction

#### **SPECIFICATIONS**

Diaphragm, upper and lower housing welded Design Instruments Gauges, pressure transducers, transmitters

Appropriate Dial Size 1 ½" (38 mm) through 6" (152.4 mm)

1000 psi through 6000 psi **Pressures** Standard: 316 stainless steel **Upper Housing** 

Optional: Monel®, Hastelloy® C276, Tantalum

Diaphragm Standard: 316 stainless steel

Optional: Monel®, Hastelloy® C276, Tantalum

**Lower Housing** Standard: 316 stainless steel

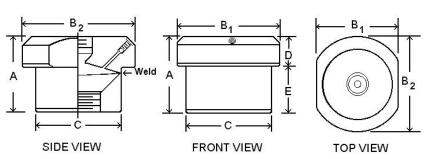
Optional: Monel®, Hastelloy® C276, Tantalum

Process Connection 1/4" FNPT, 1/2" FNPT, 3/4" FNPT, 1" FNPT

Instrument Connection 1/4" FNPT, 1/2" FNPT

Process Temperature<sup>1</sup> -49°F to 400°F (-45°C to 204°C)

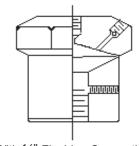




#### **AVAILABLE OPTIONS\***

- Flushing (1/4") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- Custom upper/lower/diaphragm materials

Diaphragm Seal	Unit	Α	B1	B2	С	D	E
Ctandard	ln.	1.60"	1.90"	1.99"	1.62"	0.75"	0.85"
Standard	mm	41	48	51	41	19	22
With Flushing	ln.	2.04"	1.90"	1.99"	1.63"	0.75"	0.85"
Connection	mm	52	48	51	41	19	22



With 1/4" Flushing Connection



# MLP MINI LOW PRESSURE DIAPHRAGM SEAL

# Threaded mini diaphragm seal for low pressure applications Compact, durable all-welded construction

#### **SPECIFICATIONS**

DesignDiaphragm, upper and lower housing weldedInstrumentsGauges, pressure transducers, transmittersAppropriate Dial Size1 ½" (38 mm) through 4 ½" (114.3 mm)PressuresVacuum or pressures up to 2500 psi

Upper Housing Standard: 316 stainless steel

Optional: Monel®, Hastelloy® C276, Tantalum

Diaphragm Standard: 316 stainless steel

Optional: Monel®, Hastelloy® C276, Tantalum

Lower Housing Standard: 316 stainless steel

Optional: Monel®, Hastelloy® C276, Tantalum

Process Connection 1/4" FNPT, 1/2" FNPT, 3/4" FNPT, 1" FNPT

Instrument Connection 1/4" FNPT, 1/2" FNPT

Process Temperature<sup>1</sup> -49°F to 750°F (-45°C to 399°C)



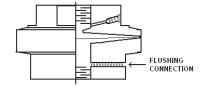
# B1 B2 B2 B2 B1 B1 B1 TOP VIEW

#### **AVAILABLE OPTIONS\***

- Flushing (¼") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- Custom upper/lower/diaphragm materials

Diaphragm Seal	Unit	A	B1	B2	С	D	E	F	G
Standard	ln.	1.51"	1.87"	1.74"	1.77"	0.50"	0.53"	0.48"	2.48"
Standard	mm	38	47	44	45	13	13	12	63
With Flushing	ln.	1.84"	1.86"	1.70"	2.01"	0.50"	0.50"	0.82"	2.48
Connection	mm	47	1.47	43	51	13	13	21	63

\*Lead times/minimums may apply



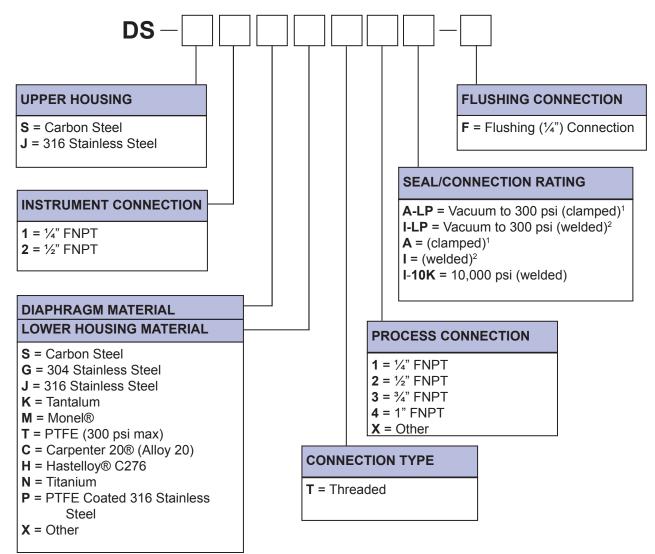
With 1/4" Flushing Connection

#### Notes:

<sup>1.</sup> Process Temperature Rating can vary based on materials of construction, system fill fluid and pressure gauge selection.

## THREADED DIAPHRAGM SEAL PART NUMBERING SYSTEM







#### **EXAMPLE: "DS-J2JJT2I-F"**3

**DS** = Diaphragm Seal

J = 316 Stainless Steel Upper Housing

2 = ½" FNPT Instrument Connection

J = 316 Stainless Steel Diaphragm

J = 316 Stainless Steel Lower Housing

**T** = Threaded Connection

2 = 1/2" FNPT Process Connection

I = 2500 psi (welded diaphragm)

**F** = Flushing (½") Connection

- Metallic diaphragm rated up to 2000 psi
- 2. Metallic diaphragm rated up to 2500 psi
- Elastomer diaphragm ratings vary, consult PIC Gauges for details. Elastomer diaphragm ratings vary, consult PIC Gauges for details.

  3. Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

  A Division of Engineered Specialty Products, Inc.



# THREADED DIAPHRAGM SEAL

# Threaded full size diaphragm seal Heavy duty, bolted construction

#### **SPECIFICATIONS**

**Design** Standard: Diaphragm welded to upper housing

Also available: Clamped

InstrumentsGauges, pressure switches, transmittersAppropriate Dial Size2 ½" (63 mm) through 6" (152.4 mm)PressuresVacuum or pressures up to 2500 psi

Upper Housing
 Wetted Materials
 (Diaphragm/
 Lower Housing)
 Chrome plated carbon steel or stainless steel
 Standard: Carbon, 304 or 316 stainless steel
 Also available: Hastelloy® C276, Monel®,
 Tantalum, PTFE (clamped), Carpenter 20®,

Titanium, Others upon request

Process Connection 1/4" FNPT, 1/2" FNPT, 3/4" FNPT, 1" FNPT

Instrument Connection 1/4" FNPT, 1/2" FNPT

**Bolts** Galvanized steel (CS upper)

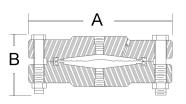
Stainless steel (SS upper)

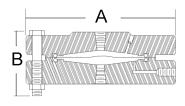
Gaskets Standard: Buna N®

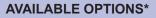
Also available: Viton®, PTFE, Grafoil®, others

upon request

**Process Temperature**<sup>1</sup> -4°F to 212°F (-20°C to 100°C)





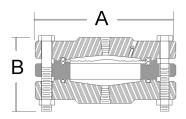


- Clamped diaphragm
- Flushing (¼") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- High temperature with grafoil gasket
- Clean-out ring (available on clamped designs only)

**STANDARD** 

# WITH FLUSHING CONNECTION

\*Lead times/minimums may apply



# WITH CLEAN-OUT RING

Diaphragm Seal	Unit	A	В
Standard	ln.	4.00"	1.50"
Standard	mm	100	38
With Flushing	ln.	4.00"	1.75"
Connection	mm	100	45
With Clean-	ln.	4.00"	2.13"
out Ring	mm	100	54

#### Notes

<sup>1.</sup> Process Temperature Rating can vary based on materials of construction, system fill fluid, gaskets and pressure gauge selection.

# THREADED HIGH PRESSURE **DIAPHRAGM SEAL**



#### Threaded high pressure diaphragm seal rated up to 10,000 psi Heavy duty bolted construction

#### **SPECIFICATIONS**

Standard: Diaphragm welded to upper housing Design

Also available: Clamped

Gauges, pressure switches, transmitters Instruments Appropriate Dial Size 2 ½" (63 mm) through 6" (152.4 mm) Pressures from 2500 to 10,000 psi **Pressures** 

**Upper Housing** Chrome plated carbon steel or stainless steel **Wetted Materials** Standard: Carbon, 304 or 316 stainless steel Also available: Hastelloy® C276, Monel®,

Tantalum, PTFE (lined), Carpenter 20®.

Titanium, Others upon request

1/4" FNPT, 1/2" FNPT, 3/4" FNPT, 1" FNPT **Process Connection** 

Instrument Connection 1/4" FNPT, 1/2" FNPT

**Bolts** Galvanized steel (CS upper)

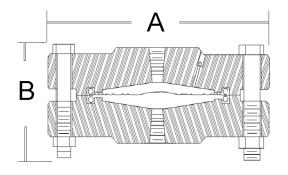
Stainless steel (SS upper)

Gaskets Standard: Buna N®

Also available: Viton®, PTFE, Grafoil®, others

upon request

Process Temperature<sup>1</sup> -4°F to 212°F (-20°C to 100°C)





#### **AVAILABLE OPTIONS\***

- Flushing (1/4") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- · High temperature with grafoil gasket

\*Lead times/minimums may apply

#### **THREADED** HIGH PRESSURE

Diaphragm Seal	Unit	Α	В
High	ln.	4"	2 1/4"
Pressure	mm	101.6	57.2



# THREADED LOW PRESSURE DIAPHRAGM SEAL

Threaded diaphragm seal designed for sensitive, low pressure applications, Vacuum - 100 psi, including inches water column and mbar ranges

#### **SPECIFICATIONS**

**Design** Standard: Diaphragm welded to upper housing

Also available: Clamped

Instruments Gauges, pressure switches, transmitters
Appropriate Dial Size 2 ½" (63 mm) through 6" (152.4 mm)

Pressures Vacuum or pressures up to 100 psi

Maximum Pressure 1,000 psi

**Upper Housing** Chrome plated carbon steel or stainless steel **Wetted Materials** Standard: Carbon, 304 or 316 stainless steel

Also available: Hastelloy® C276, Monel®, Tantalum, PTFE (clamped), Carpenter 20®,

Titanium, Others upon request

Process Connection 1/4" FNPT, 1/2" FNPT, 3/4" FNPT, 1" FNPT

Instrument Connection 1/4" FNPT, 1/2" FNPT

**Bolts** Galvanized steel (CS upper)

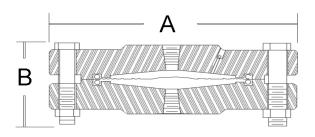
Stainless steel (SS upper)

Gaskets Standard: Buna N®

Also available: Viton®, PTFE, Grafoil®, others

upon request

**Process Temperature**<sup>1</sup> -4°F to 212°F (-20°C to 100°C)





#### **AVAILABLE OPTIONS\***

- Clamped diaphragm
- Flushing (¼") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- High temperature with grafoil gasket

\*Lead times/minimums may apply

#### **LOW PRESSURE**

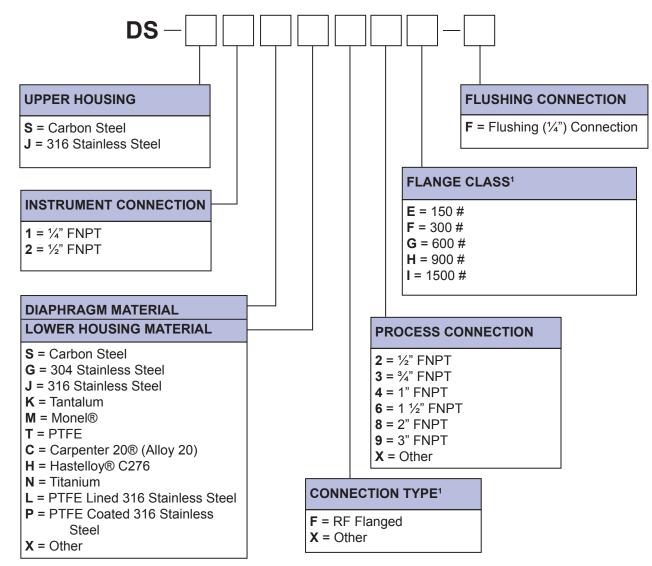
Diaphragm Seal	Unit	Α	В
Standard	ln.	5"	1 ½"
Standard	mm	127	38

#### Notes

<sup>1.</sup> Process Temperature Rating can vary based on materials of construction, system fill fluid, gaskets and pressure gauge selection.

## FLANGED DIAPHRAGM SEAL PART NUMBERING SYSTEM





#### **EXAMPLE: "DS-J2JJF2F"**<sup>2</sup>

**DS** = Diaphragm Seal

J = 316 Stainless Steel Upper Housing

2 = ½" FNPT Instrument Connection

J = 316 Stainless Steel Diaphragm

J = 316 Stainless Steel Lower Housing

F = RF Flanged Connection

2 = ½" Process Connection

F = 300 #



- 1. Other connection types and flange classes available upon request.
- 2. Not all part numbers or options are available from stock. Consult PIC Gauges for availability.



# FLANGED DIAPHRAGM SEAL

# RF (Raised Face) flanged diaphragm seal

### **SPECIFICATIONS**

**Design** Standard: Diaphragm welded to uppper housing

Also available: Clamped

InstrumentsGauges, pressure switches, transmittersAppropriate Dial Size2 ½" (63 mm) through 6" (152.4 mm)PressuresSee ASME B16.5 flange ratings

Upper HousingChrome plated carbon steel or stainless steelWetted MaterialsStandard: Carbon, 304 or 316 stainless steelAlso available: Hastelloy® C276, Monel®,

Tantalum, PTFE (clamped), Carpenter 20®,

Titanium, Others upon request Available sizes see chart below

Process Connection Available sizes see characteristics Available sizes see characteristics and the size see characteris

**Bolts** Galvanized steel (CS upper)

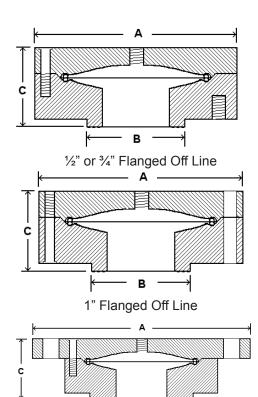
Stainless steel (SS upper)

Gaskets Standard on all stainless: Buna N®

Also available: Viton®, PTFE, Grafoil®,

others upon request

Process Temperature<sup>1</sup> -4°F to 212°F (-20°C to 100°C)





# **AVAILABLE OPTIONS\***

- Flushing (¼") connection available on lower housing
- RTJ or other facings available upon request
- 600, 900, 1500# flanged available upon request
- Oxygen cleaned
- Material analysis certificate
- High temperature with Grafoil® gasket

# \*Lead times/minimums may apply

Process Connection	Flange Rating Class	А	В	С
1/2"	450.#	3 ½"	1 3/8"	1 3/4"
3/4"	150 #	3 3/4"	1 11/16"	1 ¾"
1/2"	300#	3 ¾"	1 3/8"	1 3/4"
3/4"		4 5/8"	1 11/16"	1 3/4"
1"	150 #	4 1/4"	1 3/8"	1 1/3"
1"	300 #	4 7/8"	1 9/16"	1 1/3"
600, 900, 1500 # dimensions available upon request.				
All dimensions according to size and rating				and rating

of flange.

1 ½" or Larger Flanged Off Line

### Notes:

1 1/2" or larger

<sup>1.</sup> Process Temperature Rating can vary based on materials of construction, system fill fluid, gaskets and pressure gauge selection.

# 8

# **DS-M3A SANITARY DIAPHRAGM SEALS**



Sanitary Tri-Clamp® style diaphragm seal for applications that require sanitary conditions, including food and beverage applications

# **SPECIFICATIONS**

Upper housing and separating diaphragm Design Instruments Gauges, pressure switches, transmitters Appropriate Dial Size 1 ½" (38 mm) through 6" (152.4 mm) -10° F to 572° F (-23° C to 300° C) Operating Temp<sup>1</sup>

**Upper Housing** 316 stainless steel

Diaphragm Standard: 316L stainless steel

Other materials available upon request

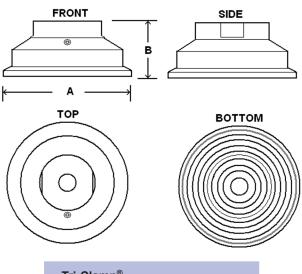
Sanitary Clamp Size 1/2" - 4"

**Pressure Rating** Based on the clamp and gasket used with

the assembly



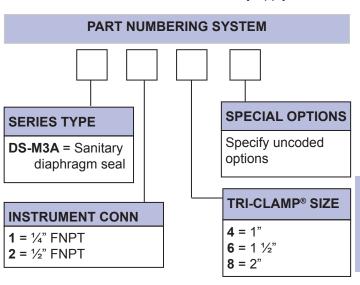
Designed & manufactured to meet the requirements of the 3A sanitary standard.



Tri-Clamp <sup>®</sup> Size	Unit	Α	В
1"	ln.	2.00"	1.26"
ı	mm	51	32
1 ½"	ln.	2.00"	1.26"
1 /2	mm	51	32
2"	ln.	2.50"	1.26"
	mm	63	32

### **AVAILABLE OPTIONS\***

- Without fill-port
- Material analysis certificate
- ½" and ¾" Tri-Clamp® dimensions available upon request
- \*Lead times/minimums may apply



- Operating Temperature Rating can vary based on materials of construction, system fill fluid and pressure gauge selection.
   Not all part numbers or options are available from stock. Consult PIC Gauges for availability.



# **PVC DIAPHRAGM SEAL**

# PVC diaphragm seal for applications that are corrosive to metallic components Designed for pressures up to 200 psi

### **SPECIFICATIONS**

Design PVC body with stainless steel bands to prevent

splitting when installing

Gauges, pressure switches, transmitters Instruments Appropriate Dial Size 2 ½" (63 mm) through 6" (152.4 mm)

Vacuum up to 200 psi **Pressures** 

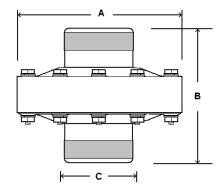
**Upper Housing PVC** 

Diaphragm PTFE or Viton®

**Lower Housing PVC** 

Process Connection 1/4" FNPT. 1/2" FNPT Instrument Connection 1/4" FNPT, 1/2" FNPT **Bolts** 304 Stainless Steel

Gaskets Integral to diaphragm (PTFE)





# **AVAILABLE OPTIONS\***

- Oxygen cleaned
- Material analysis certificate

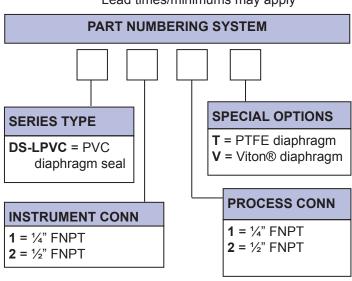
Process Conn Size	Instrument Conn Size	Α	В	С
1/4"	1/4"	3.22"	3.38"	1.29"
1/2"	1/2"	3.22"	3.38"	1.29"

Part	Pcs.	Materials
Lower Housing	1	PVC
Diaphragm	1	PTFE or Viton®
Upper Housing	1	PVC
Optional Gauge	1	
Hex Bolt, Nut & Washers	9 sets	304SS,M5x30
Stainless Steel Bands	2	SS

Material	10-20°C	30°C	40°C	50°C	60°C
	50-68°F	86°F	104°F	122°F	140°F
PVC working psi	150	115	85	60	15

Temperature Ranges - PVC: -10 to 60°C (14 to 140°F)

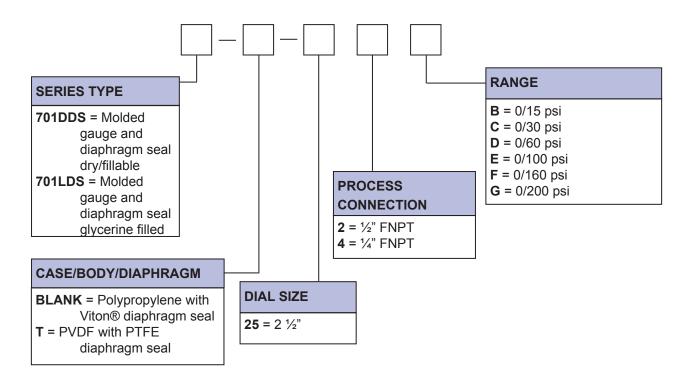
\*Lead times/minimums may apply

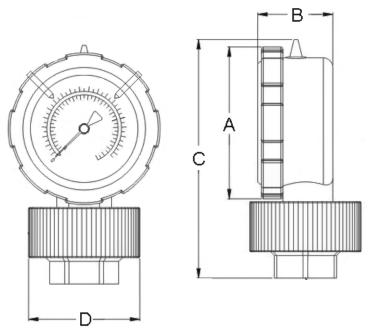


NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

# 701DDS MOLDED GAUGE & DIAPHRAGM **SEAL PART NUMBERING SYSTEM**







Dial Range	Figure Intervals	Graduation Intervals
0/15 psi	2 psi	0.2 psi
0/30 psi	5 psi	0.5 psi
0/60 psi	10 psi	1 psi
0/100 psi	20 psi	2 psi
0/160 psi	20 psi	2 psi
0/200 psi	40 psi	5 psi

Dial	Unit	Α	В	С	D
2 ½"	ln.	3.16"	1.61"	5.35"	2.32"
Z /2	mm	80.5	41	136	59



# 701DDS MOLDED GAUGE & DIAPHRAGM SEAL

# One-piece molded gauge/diaphragm seal assembly Heavy duty, tamper-resistant design

# SPECIFICATIONS 701DDS POLYPROPYLENE CASE/VITON® SEAL

**Dial Size** 2 ½" (63 mm)

Case Injection molded polypropylene, dry yet fillable

**Wetted Parts:** 

**Diaphragm** Viton®

**Lower Housing** Polypropylene

**Bezel** Injection molded polypropylene, removable

Lens Polycarbonate
Pointer Black aluminum

Scale Standard: psi/BAR x 100 = kPa

**Pressure** 0/15 to 0/200 psi

Accuracy 2-1-2% of span, ASME B40.1 Grade A

Maximum Temp -4° F to 140° F (-20° C to 60° C)

Internals(non-wetted) Copper alloy

**Process Connection** 1/4" FNPT or 1/2" FNPT

System Fill Fluid Based on customer requirements

Design meets or exceeds ASME B40.100 pressure gauge standard.



# **AVAILABLE OPTIONS\***

Liquid Fill Options, see page 173

\*Lead times/minimums may apply

# SPECIFY MOUNT FLUID WHEN ORDERING

# SPECIFICATIONS - 701DDS-T PVDF CASE/PTFE SEAL

**Dial Size** 2 ½" (63 mm)

Case Injection molded PVDF, dry yet fillable

**Wetted Parts:** 

**Diaphragm** PTFE **Lower Housing** PVDF

**Bezel** Injection molded PVDF, removable

LensPolycarbonatePointerBlack aluminum

Scale Standard: psi/BAR x 100 = kPa

**Pressure** 0/15 to 0/200 psi

Accuracy 2-1-2% of span, ASME B40.1 Grade A

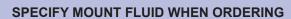
Maximum Temp -4° F to 140° F (-20° C to 60° C)

Internals(non-wetted) 316 stainless steel

Process Connection 4" FNPT or 1/2" FNPT

System Fill Fluid Based on customer requirements

Design meets or exceeds ASME B40.100 pressure gauge standard.





# **AVAILABLE OPTIONS\***

Liquid Fill Options, see page 173

\*Lead times/minimums may apply

# **DIAPHRAGM SEAL** FILL FLUID SPECIFICATIONS



PIC Gauges offers a wide variety of fill fluids appropriate for numerous applications. When selecting fill fluids, consideration must be given to the following:

- 1. Below specifications are for fill fluid only. Maximum temperature ratings of instruments must be taken into consideration in conjunction with selection of fill fluid.
- 2. Physical properties of the fill fluid at the ambient and process temperature extremes of the application.
- 3. Chemical compatibility with the process fluid to avoid potentially hazardous reactions in the event of a bourdon tube or diaphragm failure.
- 4. For food processing applications, the fill fluid selected must be nontoxic.
- 5. For strong oxidizers, like oxygen, chlorine, hydrogen peroxide or nitric acid, use inert fill fluids, including Fluorolube FS-5® and Halocarbon®. DO NOT USE hydrocarbon based fluids, such as glycerine and silicone, as doing so may result in an explosive chemical reaction.

\*Selection of fill fluid should only be made by customer taking into account all relevant details.

FILL FLUID	TEMP RANGE	SPECIFIC GRAVITY AT TEMPERATURE		VISCOSITY AT TEMPERATURE	
Glycerine 99.5%	30° to 300° F	1.26	77° F	1110 cSt	68° F
Silicone DC-200 1000 cSt	-50° to 450° F	0.96	77° F	1000cSt	76° F
Mineral Oil	-30° to 200° F	0.85	59° F	57 cSt	68° F
Propylene Glycol (pharmaceutical USP)	-50° to 200° F	1.03	77° F	42.6 cSt	76° F
Halocarbon Oil®1	-40° to 400° F	1.87	100° F	6.3 cSt	76° F
Fluorolube FS-5 <sup>®1</sup>	-40° to 500° F	1.87	100° F	5.5 cSt	76° F
Syltherm 800 <sup>®</sup>	-40° to 750° F	0.93	77° F	10.7 cSt	76° F
Neobee M-20 <sup>®</sup>	-4° to 320° F	0.92	77° F	9.5 cP	76° F
Ethylene Glycol (Anti-freeze)	-30° to 300° F	1.10	80° F	30e	76° F

FILL FLUID	APPLICATION	PART NUMBER
Glycerine 99.5%	Standard including Food & Beverage	MOUNT-GLY
Silicone DC-200 1000 cSt	Low Temperature	MOUNT-SIL
Mineral Oil	Food & Beverage	MOUNT-MINERAL
Propylene Glycol (pharmaceutical USP)	Low Temperature	MOUNT-PROPYL
Halocarbon Oil <sup>®1</sup>	Oxygen & Chlorine Service	MOUNT-HALO
Fluorolube FS-5 <sup>®1</sup>	Oxygen & Chlorine Service	MOUNT-FLUOR
Syltherm 800 <sup>®</sup>	High Temperature	MOUNT-SYL
Neobee M-20 <sup>®</sup>	Food & Beverage	MOUNT-NEOBEE M-20
Ethylene Glycol (Anti-freeze)	Low Temperature	MOUNT-GLYCOL

NOTE 1: Not to be used in contact with aluminum or magnesium.



# **THERMOMETERS**

Thermometers are used to measure temperature. PIC Gauges stocks a variety of temperature measuring instruments, including bimetals, magnetic thermometers, tridicators and scale thermometers.



# **BIMETAL THERMOMETERS**



# Considerations when selecting bimetal thermometers

A thermometer is an instrument manufactured to measure and display the temperature of a specific application or process medium. A bimetal thermometer uses a bimetallic sensing element, which reacts measurably and consistently with temperature change.

The sensing element is made of two different metals welded together in the form of a coil and enclosed in a stainless steel stem. The coil is connected to a dial pointer on the instrument face. When the stem is exposed to temperature change, the coil expands or contracts and the pointer moves accordingly, providing a temperature reading. While the American standard unit for measuring temperature is degrees Fahrenheit, PIC Gauges thermometers typically display both Fahrenheit and Celsius scales.



DIAL	PIC Gauges offers a variety of dial sizes including 1", 2", 3" and 5" diameters. For 2" through 5" sizes, dials come with anti-parallax design, providing improved readability.
CONNECTION SIZE	Typical connection sizes include ¼" NPT and ½" NPT. Custom connection sizes are available upon request. Lead times may apply.
CONNECTION LOCATION	Fixed mount and adjustable angle connections are available from stock. Straight (lower mount) connections are also available upon request.
CASE CONSTRUCTION	Constructed of 300 series stainless steel, PIC Gauges thermometers feature a hermetic seal, which prevents both damage to internal parts caused by moisture as well as lens fogging.
ACCURACY	PIC Gauges thermometers are manufactured to ASME B40.1 Grade A standards and, as such, offer 1% full scale accuracy.
TEMPERATURE RANGE	Standard ranges have been selected to include all normal temperature measurement requirements.
THERMOWELLS	Thermowells are recommended for all applications.

NOTE: The above information is for reference only and is not a comprehensive guide. Please contact your PIC Gauges representative with any questions.



# **BIMETAL THERMOMETER** PART NUMBERING SYSTEM

### **SERIES TYPE**

**B** = Bimetal thermometer

# **DIAL SIZE**

**1** = 1" Diameter

2 = 2" Diameter

3 = 3" Diameter

5 = 5" Diameter

# **RANGE**

 $AA = -40/120^{\circ} \text{ F}/-40/50^{\circ} \text{ C}$ 

**BB** =  $-40/160^{\circ}$  F/-40/71° C

**DD** =  $25/125^{\circ}$  F/-4/52° C

**EE** =  $0/150^{\circ}$  F/-18/66° C

 $GG = 0/200^{\circ} F/-18/93^{\circ} C$ 

 $HH = 0/220^{\circ} F/-18/104^{\circ} C$ 

 $II = 0/250^{\circ} F/-18/121^{\circ} C$ 

 $JJ = 20/240^{\circ} F/-7/116^{\circ} C$ 

 $MM = 50/300^{\circ} F/10/149^{\circ} C$ 

 $PP = 50/400^{\circ} F/10/204^{\circ} C$ 

 $QQ = 50/500^{\circ} F/10/260^{\circ} C$ 

**RR** = 50/550° F/10/288° C

**SS** =  $150/750^{\circ} F/66/399^{\circ} C$ 

 $TT = 200/1000^{\circ} F/93/538^{\circ} C$ 

 $U = 100/600^{\circ} F$ 

# **CONNECTION TYPE**

A = Adjustable angle

B = Back angle

**S** = Straight (lower mount)

M = Magnetic

# STEM LENGTH

 $2 = 2 \frac{1}{2}$ "

4 = 4"

**6** = 6" **8** = 8"

**9** = 9"

**10** = 10"

**12** = 12"

**15** = 15"

**18** = 18" **24** = 24"

**XX** = Custom Length

# EXAMPLE: "B3B4-II"

**B** = Bimetal thermometer

3 = 3" diameter dial size

**B** = Back angle connection type

4 = 4" stem length

 $II = 0/250^{\circ} F/-18/121^{\circ} C$ 

# STANDARD DIAL CONFIGURATIONS

Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals
-40/120° F	20° F	2° F	50/300° F	50° F	2° F
-40/160° F	20° F	2° F	50/400° F	50° F	5° F
25/125° F	10° F	1° F	50/500° F	50° F	5° F
0/150° F	20° F	2° F	50/550° F	50° F	5° F
0/200° F	20° F	2° F	150/750° F	100° F	10° F
0/220° F	20° F	2° F	200/1000° F	100° F	10° F
0/250° F	20° F	2° F	100/600° F	50° F	5° F
20/240° F	20° F	2° F			

# **BIMETAL THERMOMETERS FIXED BACK MOUNT (90°)**



# Dial type bimetal thermometer Features anti-vibration design, anti-parallax dial, hermetically sealed case

### **SPECIFICATIONS**

**Dial** 2" (50 mm), 3" (76 mm), 5" (130 mm)

Anti-parallax dial design

Case Stainless steel, hermetically sealed Stem 316 stainless steel, welded to connection

Lens Glass

Pointer Black aluminum

**Connection** Back mount (90°), fixed

1/4" NPT on 2", 1/2" NPT on 2", 3" & 5"

Scale Standard: dual scale F & C

**Accuracy** 1% full scale per Grade A, ASME B40.3

Ambient Temp\* -30° F to 180° F

External Adjustment Zero reset screw on 3" & 5" dial

Design meets or exceeds ASME B40.3 thermometer standard.



# STEM LENGTH C T STEM DIAM. ZERO ADJUST SCREW

### Unit В С D F Dial Α Ε 2.30" Stem Length 0.25" ln. 0.51" 0.39" 1/4" or 2" 1/2" NPT mm 58.4 Stem Length 6.45 12.9 10 In. 3.26" Stem Length 0.25" 0.80" 0.43" 1/3" 3" **NPT** 83 Stem Length 6.45 20 11 mm 0.82" In. 5.28" Stem Length 0.25" 0.43" 1/2" 5" **NPT** 6.45 134 22 mm Stem Length

# **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Single Scale
- Special Ranges
- Custom Lens Material

\*Lead times/minimums may apply

### **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES Dial Size** Est. Unit **Box Qty** Weight 2" 0.20 lbs upon request (0.10 kg)0.65 lbs upon request (0.28 kg)5" 1.15 lbs upon request (0.52 kg)



# BIMETAL THERMOMETERS ADJUSTABLE ANGLE TYPE

# Every angle adjustable type thermometer Features anti-vibration design, anti-parallax dial and hermetically sealed

### **SPECIFICATIONS**

Dial 3" (76 mm), 5" (130 mm) Anti-parallax dial design

Case Stainless steel, hermetically sealed
Stem 316 stainless steel welded to connection

Lens Glass

Pointer Black aluminum
Connection Adjustable angle
½" NPT on 3" & 5"

/2 NP10113 & 5

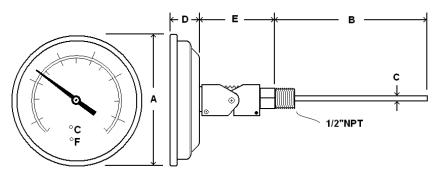
Scale Standard: dual scale F & C

**Accuracy** 1% full scale per Grade A, ASME B40.3

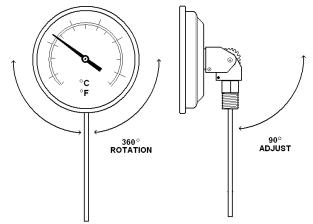
Ambient Temp\* -30° F to 180° F

External Adjustment Zero reset screw on 3" & 5" dial

Design meets or exceeds ASME B40.3 thermometer standard.



Dial	Unit	Α	В	С	D	E	F
3"	ln.	3.27"	Stem Length	0.25"	0.82"	2.45"	1/2"
3	mm	83	Stem Length	6.45	21	62	NPT
5"	ln.	5.28"	Stem Length	0.25"	0.82"	2.45"	1/2"
5	mm	134	Stem Length	6.45	21	62	NPT





# **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Single Scale
- Special Ranges
- Custom Lens Material

\*Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Weight	Box Qty			
3"	1.00 lbs (0.40 kg)	upon request			
5" 1.40 lbs upon request (0.60 kg)					

9

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.

# MISCELLANEOUS BIMETALS



# Miscellaneous bimetals designed for specific applications

# SPECIFICATIONS - BARBEQUE GRILL THERMOMETER (BBQ-1)

**Dial Size** 3" (76 mm)

Anti-parallax dial

All stainless steel construction Case

2 1/2", 316 stainless welded at connection Stem Length

Connection 1/2" NPT

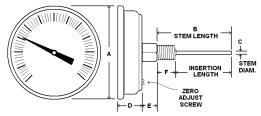
Lens Heavy duty glass **Pointer** Black aluminum

Standard: single scale F **Scale** 

50/550° F **Temperature Range** Accuracy 1% full scale

External Adjustment Zero reset screw on case back

Design meets or exceeds ASME B40.3 thermometer standard.



Part Number	Dial	Unit	Α	В	С	D	E	F
DDO 1	2"	ln.	3.28"	2.5"	0.25"	0.82"	0.43"	1/2"
BBQ-1	3	mm	83	63	7	21	11	NPT



# **AVAILABLE OPTIONS\***

 Other stem lengths available upon request

\*Lead times/minimums may apply

# SPECIFICATIONS - 1" DIAL SIZE POCKET THERMOMETER (B1B5)

**Dial Size** 1" (25.4 mm)

Case All stainless steel with plastic sleeve clip case

Stem Length

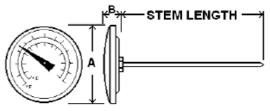
**Stem Construction** 1/8" diameter pointed plain stem (non-threaded)

Magnifying plastic Lens **Pointer** Red aluminum

Scale Standard: single scale °F **Temperature Range** -40/160° to 50/550° F +/- 1.5% full scale **Accuracy** 

Design meets or exceeds ASME B40.3 thermometer standard.

Part Number	Range
B1B5-B	-40/160°F
B1B5-D	25/125°F
B1B5-H	0/220°F
B1B5-R	50/550°F



Dial	Unit	Α	В
1"	ln.	1.03"	0.51"
'	mm	26	13



# **AVAILABLE OPTIONS\***

- Other stem lengths available upon request
- 2" dial size available upon request
- Digital version available

\*Lead times/minimums may apply



# **MISCELLANEOUS BIMETALS**

# Miscellaneous bimetals designed for specific applications

# **SPECIFICATIONS - 2" CLIP STYLE THERMOMETER**

Dial Size 2" (50 mm)

Case All stainless steel with stainless steel clip

Stem Length 6", 8", 12" Lens Plastic

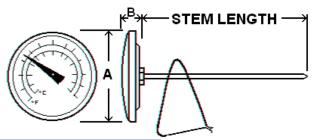
Pointer Black aluminum

Scale Standard: single scale F

**Temperature Range** 50/550° F

Accuracy +/-1.5% full scale
Part Number B2BX-R-CLIP

Design meets or exceeds ASME B40.3 thermometer standard.



Part Number	Stem Length
B2B6-R-CLIP	6"
B2B8-R-CLIP	8"
B2B12-R-CLIP	12"

Dial	Unit	Α	В	
2"	ln.	2.05"	0.41"	
2	mm	52	10.5	





# **AVAILABLE OPTIONS\***

 Other stem lengths available upon request

\*Lead times/minimums may apply

# SPECIFICATIONS - HOT WATER THERMOMETER (B2B1-K-XX)

**Dial Size** 2 ½" (63 mm)

Case Steel

**Stem Length** 2" with Copper alloy thermowell or NPT

Bezel Stainless steel Part Numbers

Lens Plastic B2B1-K-SW = Solder well

Black aluminum B2B1-K = ½" NPT

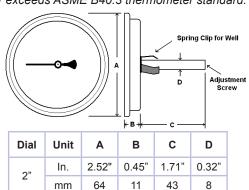
Scale Standard: dual scale F & C

**Temperature Range** 32/248° F & C **Accuracy** +/- 2% full scale

Thermometers & Thermowells

Thermowell (included) 1/2" NPT Copper alloy threaded or solder type

Design meets or exceeds ASME B40.3 thermometer standard.







# **AVAILABLE OPTIONS\***

- Other stem lengths available upon request
- Other temperature ranges

\*Lead times/minimums may apply

Pointer

# SURFACE MOUNT **THERMOMETERS**



# Miscellaneous bimetals designed for specific applications

# **SPECIFICATIONS - MAGNETIC THERMOMETER (B2MS)**

**Dial Size** 2" (50 mm) Black steel Case Bezel Black steel

Stem Length Surface thermometer - no stem

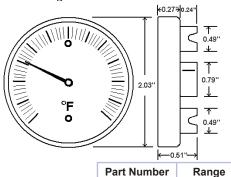
Lens Glass

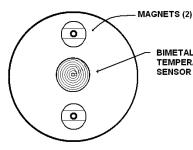
**Pointer** Black aluminum

Scale Standard: single scale F -100/160° to 50/750° F **Temperature Range** 

**Accuracy** +/-3%

Design meets or exceeds ASME B40.3 thermometer standard.





BIMETALLIC TEMPERATURE SENSOR

Part Number	Range
B2MS-Q	0/500°F
B2MS-S	50/750°F

# **AVAILABLE OPTIONS\***

- Custom dials
- Custom temperature ranges

\*Lead times/minimums may apply

# **SPECIFICATIONS - SURFACE THERMOMETER (B2SS)**

-100/160°F

0/150°F

0/250°F

**Dial Size** 2 ½" (63 mm) Case Stainless steel case

B2MS-A

B2MS-E

B2MS-I

Stem Length Surface thermometer - no stem

Clamp on design with spring

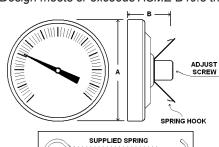
Lens Glass

**Pointer** Black aluminum

Standard: single scale F Scale **Temperature Range** -50/250° to 0/250° F

+/-3% **Accuracy** 

External Adjustment Zero reset screw on stem Design meets or exceeds ASME B40.3 thermometer standard.



		SPRING HOO
	SUPPLIED SPRING	
·	с	$\longrightarrow$

Dial	Unit	Α	В	С
2 1/2"	ln.	2.50"	1.23"	2.74"
Z //2	mm	63	31	70

Part Number	Range
B2SS-A	-50/250°F
B2SS-E	0/150°F
B2SS-I	0/250°F





# **AVAILABLE OPTIONS\***

- Custom dials
- Custom temperature ranges

\*Lead times/minimums may apply A Division of Engineered Specialty Products: Hermometers & Thermowells | 157



# **THERMOWELLS**

PIC Gauges offers a complete line of thermowells, manufacturing all sizes, connections and materials, in addition to stocking the most commonly used types.

















MATERIALS
Brass
Carbon Steel
304 Stainless Steel
316 Stainless Steel
Monel®
Hastelloy® C276
Titanium
Tantalum
Ceramic

PROCESS CONNECTIONS
Threaded
Flanged
Welded
Clamped
Sanitary
Van Stone

**OPTIONS\*** 

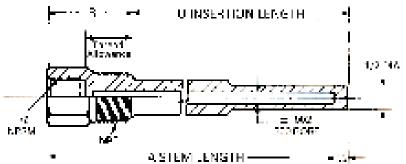
SPECIAL APPLICATIONS
High Pressure
High Velocity
Sanitary
Test Port

# **THERMOWELLS**



# Standard part numbers for bimetal thermowells

Cap and chain available upon request.



	1/2" NPT INSTRUMENT X 1/2" NPT PROCESS									
Α	В	U	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS				
2 1/2"	1 1/8"	1 5/8"	TW-BR02-22S2	TW-CS02-22S2	TW-ST02-22S2	TW-SS02-22S2				
4"	1 3/4"	2 1/2"	TW-BR04-22S2	TW-CS04-22S2	TW-ST04-22S2	TW-SS04-22S2				
6"	1 3/4"	4 1/2"	TW-BR06-22S2	TW-CS06-22S2	TW-ST06-22S2	TW-SS06-22S2				
9"	1 3/4"	7 1/2"	TW-BR09-22S2	TW-CS09-22S2	TW-ST09-22S2	TW-SS09-22S2				
12"	1 3/4"	10 1/2"	TW-BR12-22S2	TW-CS12-22S2	TW-ST12-22S2	TW-SS12-22S2				

			½" NPT INSTR	RUMENT X 3/4" N	PT PROCESS	
Α	В	U	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS
2 1/2"	1 1/8"	1 5/8"	TW-BR02-23S2	TW-CS02-23S2	TW-ST02-23S2	TW-SS02-23S2
4"	1 3/4"	2 1/2"	TW-BR04-23S2	TW-CS04-23S2	TW-ST04-23S2	TW-SS04-23S2
6"	1 3/4"	4 1/2"	TW-BR06-23S2	TW-CS06-23S2	TW-ST06-23S2	TW-SS06-23S2
9"	1 3/4"	7 1/2"	TW-BR09-23S2	TW-CS09-23S2	TW-ST09-23S2	TW-SS09-23S2
12"	1 3/4"	10 1/2"	TW-BR12-23S2	TW-CS12-23S2	TW-ST12-23S2	TW-SS12-23S2
15"	1 3/4"	13 1/2"	TW-BR15-23S2	TW-CS15-23S2	TW-ST15-23S2	TW-SS15-23S2
18"	1 3/4"	16 1/2"	TW-BR18-23S2	TW-CS18-23S2	TW-ST18-23S2	TW-SS18-23S2
24"	1 3/4"	22 1/2"	TW-BR24-23S2	TW-CS24-23S2	TW-ST24-23S2	TW-SS24-23S2

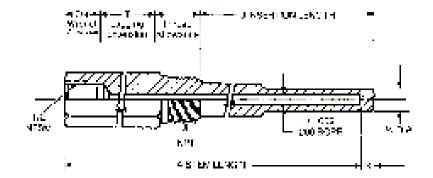
	½" NPT INSTRUMENT X 1" NPT PROCESS									
Α	В	U	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS				
2 1/2"	1 1/8"	1 5/8"	TW-BR02-24S2	TW-CS02-24S2	TW-ST02-24S2	TW-SS02-24S2				
4"	1 3/4"	2 1/2"	TW-BR04-24S2	TW-CS04-24S2	TW-ST04-24S2	TW-SS04-24S2				
6"	1 3/4"	4 1/2"	TW-BR06-24S2	TW-CS06-24S2	TW-ST06-24S2	TW-SS06-24S2				
9"	1 3/4"	7 1/2"	TW-BR09-24S2	TW-CS09-24S2	TW-ST09-24S2	TW-SS09-24S2				
12"	1 3/4"	10 1/2"	TW-BR12-24S2	TW-CS12-24S2	TW-ST12-24S2	TW-SS12-24S2				
15"	1 3/4"	13 1/2"	TW-BR15-24S2	TW-CS15-24S2	TW-ST15-24S2	TW-SS15-24S2				
18"	1 3/4"	16 1/2"	TW-BR18-24S2	TW-CS18-24S2	TW-ST18-24S2	TW-SS18-24S2				
24"	1 3/4"	22 1/2"	TW-BR24-24S2	TW-CS24-24S2	TW-ST24-24S2	TW-SS24-24S2				

\*NOTE: Brass wells are not recommended for installations involving temperatures over 400 $^{\circ}$  F.



# **THERMOWELLS**

# Part numbers for bimetal thermowells with lagging extensions



Cap and chain available upon request.

	1/2" NPT INSTRUMENT X 1/2" NPT PROCESS									
Α	U	Т	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS				
4"	1 5/8"	1"	TW-BR04-22L2	TW-CS04-22L2	TW-ST04-22L2	TW-SS04-22L2				
6"	2 ½"	2"	TW-BR06-22L2	TW-CS06-22L2	TW-ST06-22L2	TW-SS06-22L2				
9"	4 1/2"	3"	TW-BR09-22L2	TW-CS09-22L2	TW-ST09-22L2	TW-SS09-22L2				
12"	7 ½"	3"	TW-BR12-22L2	TW-CS12-22L2	TW-ST12-22L2	TW-SS12-22L2				

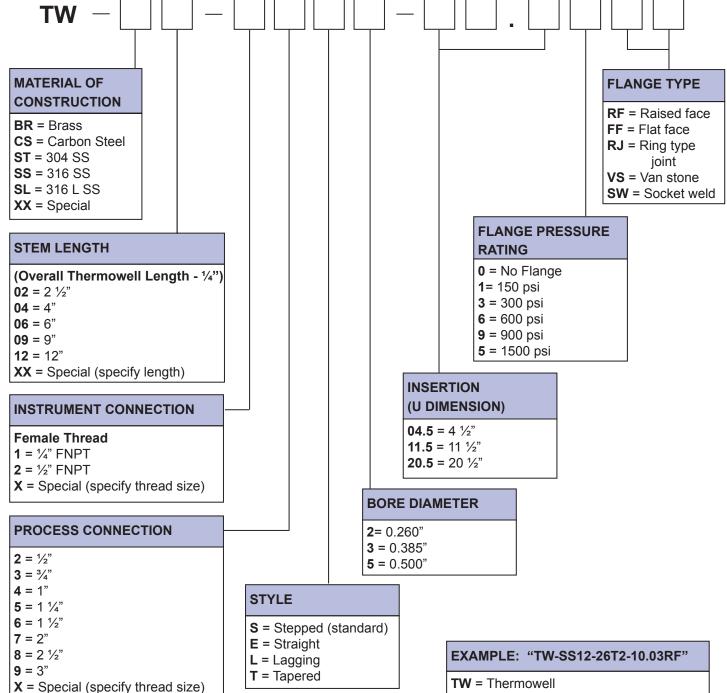
	1/2" NPT INSTRUMENT X 3/4" NPT PROCESS									
Α	U	Т	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS				
4"	1 5/8"	1"	TW-BR04-23L2	TW-CS04-23L2	TW-ST04-23L2	TW-SS04-23L2				
6"	2 ½"	2"	TW-BR06-23L2	TW-CS06-23L2	TW-ST06-23L2	TW-SS06-23L2				
9"	4 ½"	3"	TW-BR09-23L2	TW-CS09-23L2	TW-ST09-23L2	TW-SS09-23L2				
12"	7 ½"	3"	TW-BR12-23L2	TW-CS12-23L2	TW-ST12-23L2	TW-SS12-23L2				
15"	10 ½"	3"	TW-BR15-23L2	TW-CS15-23L2	TW-ST15-23L2	TW-SS15-23L2				
18"	13 ½"	3"	TW-BR18-23L2	TW-CS18-23L2	TW-ST18-23L2	TW-SS18-23L2				
24"	19 ½"	3"	TW-BR24-23L2	TW-CS24-23L2	TW-ST24-23L2	TW-SS24-23L2				

		1/2	" NPT INSTRU	JMENT X 1" NF	PT PROCESS	
Α	U	Т	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS
4"	1 5/8"	1"	TW-BR04-24L2	TW-CS04-24L2	TW-ST04-24L2	TW-SS04-24L2
6"	2 ½"	2"	TW-BR06-24L2	TW-CS06-24L2	TW-ST06-24L2	TW-SS06-24L2
9"	4 ½"	3"	TW-BR09-24L2	TW-CS09-24L2	TW-ST09-24L2	TW-SS09-24L2
12"	7 ½"	3"	TW-BR12-24L2	TW-CS12-24L2	TW-ST12-24L2	TW-SS12-24L2
15"	10 ½"	3"	TW-BR15-24L2	TW-CS15-24L2	TW-ST15-24L2	TW-SS15-24L2
18"	13 ½"	3"	TW-BR18-24L2	TW-CS18-24L2	TW-ST18-24L2	TW-SS18-24L2
24"	19½"	3"	TW-BR24-24L2	TW-CS24-24L2	TW-ST24-24L2	TW-SS24-24L2

\*NOTE: Brass wells are not recommended for installations involving temperatures over 400° F.

# **THERMOWELL** PART NUMBERING SYSTEM





**SS** = 316 SS

**12** = 12" stem

2 = ½" FNPT instrument connection

 $6 = 1 \frac{1}{2}$  process connection

**T** = Tapered

**2** = 0.260" Bore Diameter

**10.0** = 10" insertion

3 = 300 psi flange rating

RF = Raised face flange

NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.



# **THERMOWELL TECHNICAL DATA**

PRESSURE - TEMPERATURE RATING - PSI									
		Temperature - °F							
Material	70°	200°	400°	600°	800°	1000°	1200°		
Brass	5000	4200	1000	-	-	-	-		
Carbon Steel	5200	5000	4800	4600	3500	1500	-		
304SS	7000	6200	5600	5400	5200	4500	1650		
316SS	7000	7000 7000 6400 6200 6100 5100 2500							
Monel®	6500	6000	5400	5300	5200	1500	-		

		MA	AXIMUM FL	UID VELOC	ITY - FEET	PER SECOI	ND		
					Insertion L	ength - "U"			
Well Type	Material	2 1/2"	4 1/2"	7 ½"	10 ½"	13 ½"	16 ½"	19 ½"	<b>22</b> ½"
	Brass	207	75.5	27.3	13.9	8.4	5.6	4.1	3
		(59.3)	(32.2)	(19.7)					
½" Standard and	Carbon	290	105	38	19.4	11.8	7.8	5.7	4.2
	Steel	(106)	(59)	(36.3)					
	304SS/	300	109	39.5	20.1	12.2	8.1	5.9	4.4
Lagging	316SS	(148)	(82.2)						
	Monel®	261	95	34.4	17.5	10.5	7.1	5.2	3.8
		(118)	(65.5)						
	Brass	207	89.1	32.2	16.4	9.9	6.6	4.8	3.6
		(59.3)	(39.8)	(23.9)					
3/4"	Carbon Steel	290	123	44.9 (42.7)	22.8	13.8	9.3	6.7	4.9
Standard		(106)	(71.2)						
and	304SS/	300	128	46.4	23.6	14.3	9.6	6.9	5.1
Lagging	316SS	(148)	(99.3)						
	Monel®	261	112	40.6	20.7	12.4	8.3	6.1	4.5
		(118)	(79.8)						
	Brass	207	102	37	18.8	11.4	7.6	5.5	4.1
		(59.3)	(47.6)	(28)					
1"	Carbon	290	143	51.6	26.2	15.9	10.6	7.6	5.7
Standard	Steel	(106)	(84.3)	(50.6)					
and	304SS/	300	148	53.5	27.2	16.5	11	7.9	5.9
Lagging	316SS	(148)	(117)						
	Monel®	261	128	46.7	23.7	14.4	9.5	6.9	5.1
		(118)	(93.3)						

NOTE: Values listed above are for steam, air, gas and similar density. Values shown in parentheses are for water flow only.

NOTE: PIC Gauges' data on thermowell performance is based on industry standards in common use by design engineers and other manufacturers. PIC Gauges is not responsible for errors resulting from omission, transmission, transposition, printing or interpretation of such data.

# REMOTE DIAL & GAS ACTUATED THERMOMETERS



# Miscellaneous thermometers designed for specific applications

# **SPECIFICATIONS - REMOTE DIAL VAPOR THERMOMETER**

Dial Size 3 ½" (88.9 mm)
Case Stainless steel

Capillary Length 5 feet

LensPolycarbonatePointerBlack aluminum

Scale Standard: dual scale °F & °C Temperature Range Custom, Stock - see chart below

Accuracy 1% full scale Box Quantity 30 pieces

**Bulb** 3" stainless steel plain bulb

Stock Part Numbers	Range	Mounting
V35WFF-180	0/180°F	Front Flange
V35WFF-250	0/250°F	Front Flange
V35UCC-240	30/240°F	U-Clamp
V35WFF-300	0/300°F	Front Flange
V35WFF-550	50/550°F	Front Flange

# CUSTOM ORDER ITEM

Contact PIC Gauges for available options, part numbers, and applicable lead times



# **AVAILABLE OPTIONS\***

- Other capillary lengths available upon request
- Other ranges available upon request
- Other dial sizes available upon request

\*Lead times/minimums may apply

# **SPECIFICATIONS - GAS ACTUATED THERMOMETER**

**Dial Size** 4 ½" (125 mm), 6" (150 mm)

CasePhenolicCapillary LengthCustomLensPlastic

**Pointer** Black aluminum, slotted adjustable **Scale** Standard: dual scale °F & °C

Temperature Range Custom
Accuracy 1% full scale

**Bulb** 6" stainless steel with ½" NPT bushing

# **CUSTOM ORDER ITEM**

Contact PIC Gauges for available options, part numbers, and applicable lead times

# **AVAILABLE OPTIONS\***

 Other stem lengths available upon request

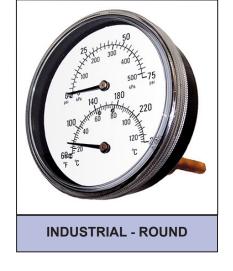
\*Lead times/minimums may apply



# **TRIDICATORS**

# Measure pressure and temperature in one instrument Available in various sizes and configurations









# 2 1/2" TRIDICATORS



**Dual reading pressure and temperature instrument** High quality, economical design for use in commercial and industrial boiler applications

# **SPECIFICATIONS**

Dial 2 ½" (63 mm)

Case Black painted steel, dry non-fillable 1.75", 2.95" or 3.63", copper alloy Stem

Plastic with red indicator Lens

Pointer Black aluminum Connection Center back mount 1/4" NPT, copper alloy

Pressure: dual scale psi & ft of water column Scale

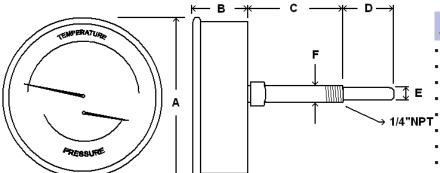
Temperature: dual scale F & C

**Temperature Range** 70/320° F & 20/160° C

Accuracy 3-2-3% full scale per Grade B, ASME B40.1

**Ambient Temp\*** -30° F to 180° F





# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Single Scale
- Special Ranges
- 1/4"NPT Custom Lens Material
  - Custom Stem Length
  - Custom Lagging Dimension
  - Stainless Steel Wetted Parts

Dial	Unit	Stem Length	A	В	С	D	E	F
2 1/2"	ln.	1.75"	2.64"	1.02"	0.77"	0.96"	0.31"	0.54"
Z /2	mm	44.5	67	26	20	25	8	13.6
2 1/2"	ln.	2.95"	2.64"	1.02"	2.00"	0.96"	0.31"	0.54"
Z /2	mm	75	67	26	51	25	8	13.6
2 1/2"	ln.	3.63"	2.64"	1.02"	2.00"	1.60"	0.31"	0.54"
Z ½	mm	92.2	67	26	51	41	8	13.6

PART NUMBER	DIAL	PR	ESSURE	TEMPERATURE				
	SIZE	psi	Ft of Water	F	С			
TRI-RC-254Rx.xx-D	2 1/2"	0/75	0/170	70-320°	20-160°			
TRI-RC-254Rx.xx-G	2 1/2"	0/200	0/460	70-320°	20-160°			
Other ranges available upon request.								

\*Lead times/minimums may apply

# **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

Stem Length	Est. Unit Weight	Box Qty
1.75"	0.30 lbs (0.14 kg)	100
2.95"	0.35 lbs (0.16 kg)	50
3.63"	0.35 lbs (0.16 kg)	50

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.



# 3" TRIDICATORS

Dual reading pressure and temperature instrument High quality, economical design for use in commercial and industrial boiler applications

# **SPECIFICATIONS**

**Dial** 3 1/4" (83 mm)

Case Black painted steel, dry non-fillable

**Stem** 3", copper alloy

**Lens** Plastic with red indicator

Pointer Black aluminum
Connection Center back mount
1/2" NPT, copper alloy

Scale Pressure: dual scale psi & ft of water column

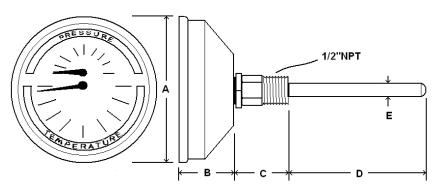
Temperature: dual scale °F & °C

Temperature Range 70/320° F & 20/160° C

**Accuracy** 3-2-3% full scale per Grade B, ASME B40.1

Ambient Temp\* -30° F to 180° F





# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Single Scale
- Special Ranges
- Custom Lens Material
- Custom Stem Length
- Custom Lagging Dimension
- 316 Stainless Steel Wetted Parts

	Dial	Unit	A	В	С	D	E
	3 1/4"	ln.	3.31"	1.23"	1.36"	2.23"	0.36"
		mm	84	31	34.4	57	9.3

\*Lead times may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Weight	Box Qty			
3 1/4"	0.55 lbs (0.26 kg)	50			

PART NUMBER	DIAL PRESSURE		ESSURE	TEMPERATURE		
	SIZE	psi	Ft of Water	F	С	
TRI-RC-3.25R-3.00-D	3 1/4"	0/75	0/170	70-320°	20-160°	
TRI-RC-3.25R-3.00-E	3 1/4"	0/100	0/230	70-320°	20-160°	
TRI-RC-3.25R-3.00-G	3 1/4"	0/200	0/450	70-320°	20-160°	
TRI-RC-3.25R-3.00-H	3 1/4"	0/300	0/700	70-320°	20-160°	

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.

# 4" INDUSTRIAL TRIDICATORS



**Dual reading pressure and temperature instrument** High quality, economical design for use in commercial and industrial boiler applications

# **SPECIFICATIONS**

PART NUMBER

Dial 4" (101 mm)

Case Painted steel, dry non-fillable

2", copper alloy Stem Round: plastic Lens Square: glass **Pointer** Black aluminum

Connection Lower mount, lower back mount

1/2" NPT, copper alloy

Pressure: dual scale psi & kPa Scale

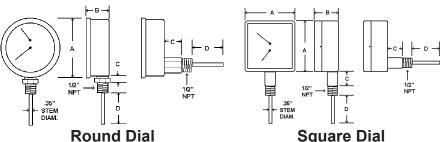
Temperature: dual scale °F & °C

**Temperature Range** 70/320° F & 20/160° C

**PRESSURE** 

Accuracy 1% full scale per Grade 1A, ASME B40.1

**Ambient Temp\*** -30° F to 180° F



Square Dia
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CONNECTION

DIAL

Dial	Unit	Α	В	С	D
Round	In.	4.23"	1.45"	0.51"	2.12"
	mm	107	37	13	54
Square	ln.	3.65"	1.47"	0.83"	2.00"
	mm	93	37	21	51

**TEMPERATURE** 

TRI-RC-402L-D	0/75 psi	60-260° F	lower	round
TRI-RC-402L-G	0/200 psi	70-320° F	lower	round
TRI-RC-402L-H	0/300 psi	60-260° F	lower	round
TRI-RC-402R-D	0/75 psi	60-260° F	back	round
TRI-RC-402R-G	0/200 psi	70-320° F	back	round
TRI-SQ-402L-D	0/75 psi	60-260° F	lower	square
TRI-SQ-402L-E	0/100 psi	60-260° F	lower	square
TRI-SQ-402L-G	0/200 psi	80-320° F	lower	square
TRI-SQ-402R-D	0/75 psi	60-260° F	back	square
TRI-SQ-402R-E	0/100 psi	60-260° F	back	square
TRI-SQ-402R-G	0/200 psi	80-320° F	back	square
TRI-SQ-402R-H	0/300 psi	80-320° F	back	square

# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Single Scale
- Special Ranges
- Custom Lens Material
- Custom Stem Lengths

\*Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES								
Dial Size	Est. Unit Weight	Box Qty						
Round	0.95 lbs (0.40 kg)	50						
Square	, ,,							

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.



# 3" HEAVY DUTY TRIDICATORS

Dual reading pressure and temperature instrument High quality, economical design for use in commercial and industrial boiler applications

# **SPECIFICATIONS**

**Dial** 3" (76.2 mm)

Case Heavy duty, dry non-fillable

**Stem** 2", copper alloy

**Lens** Glass

Pointer Black aluminum
Connection Lower mount
Center back mou

Center back mount ½" NPT, copper alloy

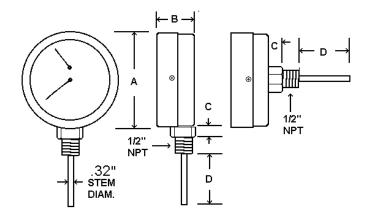
Scale Pressure: dual scale psi & feet of water

Temperature: dual scale °F & °C

Temperature Range 70/320° F & 20/160° C

**Accuracy** 3-2-3% full scale per Grade B, ASME B40.1

Ambient Temp\* -30° F to 180° F



Dial	Unit	Α	В	С	D
3"	ln.	3.21"	1.29"	0.32"	2.00"
٥	mm	81.5	33	8	51



# **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Single Scale
- Special Ranges
- Custom Lens Material
- 316 Stainless Steel Wetted Parts

\*Lead times/minimums may apply

	APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES					
Dial Size	Est. Unit Weight	Box Qty				
3"	0.70 lbs (0.32 kg)	50				

PART NUMBER	CONNECTION DIAL		PRESSURE		TEMPE	RATURE
		SIZE	psi	Ft of Water	F	С
TRI-HD-302L-E	Lower	3"	0/100	0/230	70-320°	20-160°
TRI-HD-302L-G	Lower	3"	0/200	0/450	70-320°	20-160°
TRI-HD-302R-E	Center Back	3"	0/100	0/230	70-320°	20-160°
TRI-HD-302R-G	Center Back	3"	0/200	0/450	70-320°	20-160°

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.

# **INDUSTRIAL THERMOMETER**



# Blue spirit filled adjustable angle thermometer for industrial applications

# **SPECIFICATIONS**

Scale Size 7" (177.8 mm), 9" (228.6 mm)

Case Black molded ABS for temps up to 200° F

Black enamel die cast aluminum for ranges

above 200° F

3 1/2", 6", 9", 12", copper alloy Stem

Lens Glass Indicator Blue spirit

Connection Lower mount, adjustable angle

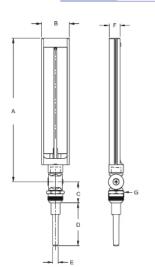
1 1/4" -18" NEF thread

Scale Dual scale °F & °C

0-120° F, 30-240° F, Others available from stock **Temperature Range** 

Accuracy 1% scale division per Grade A, ASME B40.3

SCALE SIZE	PART NUMBERS STEM LENGTHS						
SIZE	3 1/2"	6"	9"	12"			
7"	AS5H7	AS5L7	N/A	N/A			
9"	AS5H9	AS5L9	AS5N9	AS5Q9			



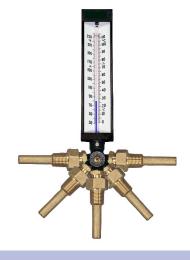
Scale	Unit	Α	В	С	D
7"	ln.	9.79"	2.41"	1.67"	Stem
/	mm	249	62	43	Stem
Scale	Unit	E	F	G	
7"	In	0.44"	1.06"	1.25"	
/"	mm	11	27	32	

Scale	Unit	Α	В	С	D
9"	ln.	11.7"	2.41"	1.67"	Stem
9	mm	297	62	43	Stem
Scale	Unit	Е	F	G	
9"	In	0.44"	1.06"	1.25"	
	mm	11	27	32	





INDUSTRIAL THERMOWELL PART NUMBERS					
Stem	Stem Process Connection Type		Brass	304 SS	316 SS
3 ½"	3/4" NPT	Standard	TWB-35	T6E3D2	T4E3D2
3 /2	74 NPT	Lagging	TWB-35-LAG	T6E3D2B	T4E3D2B
6"	3/" NDT	Standard	T1M3D2	T6M3D2	T4M3D2
0	3⁄4" NPT	Lagging	T1M3D2E	T6M3D2E	T4M3D2E



# **AVAILABLE OPTIONS\***

- Straight connection
- 90° back angle connection
- Plastic face at additional charge
- Thermowells
- Cap and Lanyard
- Aluminum Case

\*Lead times/minimums may apply

# **APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES**

DOX QUAI	BOX QUANTITIES				
Part Number	Est. Unit Weight	Box Qty			
AS5H7	1.00 lbs (0.46 kg)	upon request			
AS5L7	1.10 lbs (0.50 kg)	upon request			
AS5H9	1.15 lbs (0.52 kg)	upon request			
AS5L9	1.20 lbs (0.56 kg)	upon request			
AS5N9	1.35 lbs (0.62 kg)	upon request			
AS5Q9	1.55 lbs (0.70 kg)	upon request			





# SOLAR DIGITAL INDUSTRIAL THERMOMETER

# Digital adjustable angle thermometer for industrial applications

# **SPECIFICATIONS**

**Display** LCD black character, ½" high with gray

background

Case ABS black plastic Stem 3 ½" or 6", aluminum

Illuminance Bi-directional solar collectors, 35 lux

Dual solar panels provide better light pick up in

low light conditions

Sensor Glass passivated thermistor

**Connection**Lower mount, swivel & adjustable angle 1 1/4" - 18 UNEF Copper alloy jam nut

Scale Dual scale °F & °C
Temperature Range -58/302° F or -50/150° C

Switchable between °F and °C

**Accuracy** Greater value of 1° or 1% of reading

Ambient Temp -30° F to 140° F

Ambient Temp Error None

Time Update Six times per minute

**Resolution** 0.10° between -58/199.9° F (-50/93° C)

**Recalibration** Internal potentiometer

**Maximum Humidity** 100%



Stem	Part Number	Unit	Α	В	С	U
2 1/"	AADHFC	ln.	3.20"	7.56"	5.75"	2.50"
3 /2	AADHFC	mm	81.3	192	146	63.5
6"	AADLFC	ln.	3.20"	10.06"	8.25"	5.00"
υ	AADLFC	mm	81.3	255.5	209.6	127



# **AVAILABLE OPTIONS\***

- Select 3 ½" or 6" stem
- Thermowells, see page 169
- Cap and Lanyard, see page 169

\*Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES			
Stem Length	Est. Unit Weight	Box Qty	
3 ½"	0.52 lbs/ (0.24 kg)	upon request	
6"	1.00 lbs (0.45 kg)	upon request	

# 160 SERIES **5" SCALE THERMOMETER**



Red spirit filled economy thermometer for commercial and industrial applications

# **SPECIFICATIONS**

**Scale Size** 5" (127 mm) white painted steel with

black markings

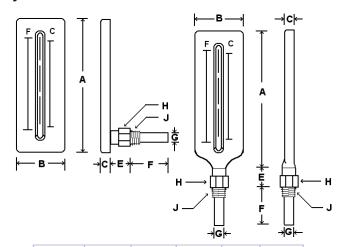
Stem 2.125", copper alloy

Well Brass or steel - includes thermowell Indicator Red liquid filled - no mercury Connection

Lower mount, lower back mount

1/2" NPT

Scale Dual scale °F & °C **Temperature Range** 40/280° F & 15/135° C **Accuracy** +/-1 scale division



Туре	Unit	Α	В	С	E
Dottom	ln.	7.75"	1.81"	0.38"	1"
Bottom	mm	197	46	9.7	146
Pook	ln.	7.00"	1.81"	0.38"	0.88"
Back	mm	177.8	46	9.7	209.6

Type	Unit	F	G	Н	J
Bottom	In.	2.13"	0.47"	0.88"	1/2"
	mm	54.1	11.9	22.4	NPT
Back	ln.	2.13"	0.47"	0.88"	1/2"
	mm	54.1	11.9	22.4	NPT

PART NUMBER	CONNECTION	WELL
162F	Bottom	Brass
162FS	Bottom	Steel
163F	Back	Brass
163FS	Back	Steel



# **AVAILABLE OPTIONS\***

Lower mount or lower back mount

\*Lead times/minimums may apply

APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES				
Part Number	Est. Unit Weight	Box Qty		
162F	0.65 lbs (0.28 kg)	upon request		
163F	0.70 lbs	upon request		



# PRESSURE RANGE SELECTION

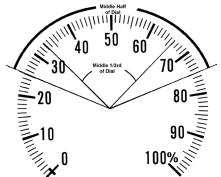
There are several factors that influence pressure range selection. The following excerpt from ASME B40.100 explains along what portion of the scale the gauge should typically operate.

# **ASME B40.100-2005**

4.3.1 Operating Pressure. The pressure gauge selected should have a full-scale pressure such that the operating pressure occurs in the middle half (25% to 75%) of the scale. The full-scale pressure of the gauge selected should be approximately two times the intended operating pressure.

Should it be necessary for the operating pressure to exceed 75% of full scale, contact the supplier for recommendations.

This does not apply to test, retarded, or suppressed scale gauges.



Bourdon tube pressure gauges are designed and built to operate primarily in the middle third of the scale range so that when the gauge is mounted in a vertical and upright position, the pointer will be as close as possible to the 12 o'clock position when reading pressure at normal operating conditions.

Although the gauge will operate full scale, there are other considerations to take into account. If the gauge is primarily operating at the bottom of the scale (near zero), the accuracy or readability would be improved by using a more appropriately applied lower range pressure gauge. (See ASME B40.1-2005) If, on the other hand, the gauge is operating at the top of the scale (near the maximum pressure range of the gauge), the life span of the gauge may be decreased, particularly if the gauge encounters high cycling, temperature extremes and/or excessive vibration.

- A bourdon tube is a curved and hardened or formed piece of metal designed to move a certain amount based on the amount of force applied, then, return to its original shape when at rest, just like a spring. As with any spring, the bourdon tube will fail after extended use. This failure could be as simple as a loss of accuracy, failure to return to zero, or a release of the pressurized medium into the case of the gauge or atmosphere. Note: Extended use could be time in service, number of pressure cycles and extent of the pressure cycle. The larger the number of applied pressure cycles and the greater the extent of the pressure cycle, the earlier the failure will occur.
- Bourdon tubes are by design highly stressed, especially in ranges over 1000 psi. Continuous operation at full scale will result in early fatigue failure and subsequent rupture.
- Continuous, rapid pointer motion will result in excessive wear of the internal mechanism and cause gross errors in accuracy, the pressure indicated and, also, possible early fatigue failure of the bourdon tube. If the pointer motion is due to pressure pulsations, a suitable dampener should be used between the pressure source and the gauge.

To choose the best range for your application, the following factors must be considered:

- A. The normal operating pressure or average system pressure.
- B. System pressure limits (both maximum and minimum).
- C. Primary concern between readability, accuracy and/or durability.

See ASME B40.1 for additional details.

# LIQUID FILLING/VENTING SEALED GAUGES



LIQUID FILLED GAUGE ADVANTAGES	GLYCERINE
<ul> <li>In applications with vibration or pulsation, liquid filling enables reading the dial pointer by dampening the movement.</li> <li>Liquid filling should be considered for any system with dynamic operating conditions because the liquid absorbs vibration and pressure spikes.</li> <li>In general, liquid filling helps extend the life of a gauge by reducing wear in the movement.</li> <li>Because gauges can be filled with different types of liquids, the degree of protection can be suited to process conditions. See fill fluid considerations below.</li> <li>Liquid filled gauges can add to the dependability and accuracy of the measuring system for long periods under extreme operating conditions.</li> </ul>	Glycerine is the standard fill fluid for most liquid filled gauges due to its unique fluid properties:     Clarity     Viscosity     Stability     Cost     Solubility     Low Toxicity      Additionally, glycerine can be mixed with water to obtain different temperature ratings     ** Glycerine/Water** Low Temp Rating     90/10

# **FILL FLUID CONSIDERATIONS**

Guidelines for determining an appropriate fill fluid include:

Temperature

Low Temp Application: Use anti-freeze, low viscosity silicone oil or other comparable liquids

High Temp Application: Use high temp rated fluids such as Syltherm® 800 or high viscosity silicone oil

- Infrequent but Severe Pressure Spikes: Use high viscosity fluid
- Gauges with Electrical Contacts: Use insulation oils
- Chemical Compatibility: Select fill fluid that will not react with the process media in the event of bourdon tube failure.

While the temperature range for each individual fill fluid varies, the ranges listed below take into consideration the *operating temperature permissible for gauges*.

**TEMPERATURE RANGES** 

Gauge Fill Fluid	Operating Temp Range
Glycerine	+30° F to 160° F
99.5% Food Grade	-1° C to 71° C
Silicone	-40° F to 160° F
DC 200 1000 cSt	-40° C to 71° C
Halocarbon®	-40° F to 160° F
	-40° C to 71° C

For temperatures above 160° F, contact PIC Gauges for assistance in selecting fill fluids rated at higher temperatures and appropriate fill fluids.



# LIQUID FILLING/VENTING SEALED GAUGES

Sealed gauges, whether liquid filled or dry, can build internal pressure that can cause an instrument to be inaccurate. An inaccurate gauge can lead to inaccurate system pressures, inefficient processes and damage to components of pressurized systems. By venting the gauge, the internal case pressure can be returned to atmospheric pressure, thereby improving the accuracy of the gauges.

American National Standards Institute (ANSI) approves American National Standards which include the American Society of Mechanical Engineers (ASME) standard ASME B40.100. This standard addresses venting of sealed gauges within the following section:

Sealed Cases: Liquid filled or not, will exhibit error as a result of exposure to ambient or media temperature different from that at which the case was sealed unless compensation is provided. This error is caused by internal case pressure changes and depends on fill media, extent of fill and other factors. The error is constant over the entire scale, and if the temperature is stable, within limits, it can be corrected by resetting the pointer. An increase in temperature generally causes an increase in internal case pressure with a resulting decrease in indicated pressure. The opposite occurs for a decrease in temperature. For a given temperature change, the percentage of error noted on the gauge is a function of the range of the gauge. If, for example, the temperature increase causes the internal pressure to increase by 3 psi, then on a 30 psi gauge, this will cause a 10% error, whereas on a 0/100 psi gauge, the error will be 3%. For higher ranges, the percentage of error becomes proportionately less.

A fill plug fits into the hole in a pressure gauge case. On liquid fillable pressure gauges, a ventable fill plug is used to relieve internal case pressures that occur due to thermal expansion of the fill fluid. Several options are shown below. IMPORTANT NOTE: When venting filled gauges, always install in the upright position to prevent leaks.

# PRESSURE RELIEF PLUG OPTIONS



FLIP PLUG



**CLIP PLUG** 



**FLAT PLUG** 

# TESTS AND CERTIFICATIONS



# TEST AND CERTIFICATION OF PRESSURE GAUGES

- 1. All of PIC Gauges pressure gauges are manufactured to be in accordance with ASME B40.1-2005.
- 2. Each gauge is individually tested and calibrated during the assembly process.
- 3. Although each gauge is individually tested, they are not individually traceable to NIST Standards and therefore not certified as a standard of production.
- 4. If certification of accuracy is required, independent testing against a known and traceable standard (i.e. a certified dead weight tester) will be required. This typically carries additional fees and charges. Please contact a PIC Gauges account representative for more information.
- 5. If a certificate of conformance is required, PIC Gauges can supply this at no or minimal expense. Please contact an account representative for more information.

Although all PIC Gauges are manufactured and tested to be accurate and in calibration, rough handling during shipment may cause pressure gauges to be "knocked out" of calibration. This can occur even though good packaging practice was used.

The American National Standard on pressure gauges (ASME B40.1) recognizes this by including the following statement:

Caution to users: Pressure gauges can be rendered inaccurate during shipment despite care taken in packaging. To insure conformance to the standard grade to which the pressure gauge was manufactured, it should be checked before use.

Gauges received "off zero" because of shipping damage can usually be brought back into calibration by a simple pointer adjustment.

Please make sure your customers are aware of this information.

# **ASME STANDARD ACCURACY GRADES**

Accuracy Grade	(+/- perce	Permissible Error ent of span) (excluding	Maximum Friction (% of span)	Min Dial Size (270° dial arc)	
	Lower 1/3 of scale	Middle 1/3 of scale	Upper 1/3 of scale		
4A		0.1	Note*	8.5"	
3A		0.25	0.25	4.5"	
2A		0.5	0.5	2.5"	
1A		1.0	1.0	1.5"	
А	2.0	1.0	2.0	1.0	1.5"
В	3.0	2.0	3.0	2.0	1.5"
С	4.0 3.0		4.0	3.0	1.5"
D	5.0	5.0	5.0	3.0	1.5"

\*NOTE: Grade 4A gauges must remain within specified tolerance before and after being lightly tapped.



# LIMITED WARRANTY / RETURNS

# LIMITED WARRANTY

PIC Gauges, a division of Engineered Specialty Products Inc., warrants all of its mechanical instruments to be free from defects in materials and workmanship. Liability under this warranty is limited to repair or replacement F.O.B. factory of any products which prove to be defective or repayment of the purchase price at PIC Gauges' option. Instruments must be returned, transportation prepaid, within one year from date of purchase.

This warranty should not apply to the following:

- A. The product has been subjected to misuse, neglect, abuse, accident, incorrect mounting, improper use or misapplication.
- B. The performance of any system of which PIC Gauges' products are a component part.
- C. The product has been exposed to any other service, range or environment of greater severity than that for which the products were designed.
- D. The product has been altered or repaired by anyone except PIC Gauges or its authorized service agencies.
- E. The serial number or date code has been removed, defaced or changed.
- F. The actual pressure and temperature occurring exceed the values specified for PIC Gauges products.

Unless otherwise specified in a manual or warranty card, or agreed to in writing signed by an authorized PIC Gauges representative, PIC Gauges products shall be warranted for one year from the date of sale.

The warranty is in lieu of all other warranties expressed or implied, and of all obligations or liabilities on its part for damages including but not limited to consequential damages, following the use or misuse of instruments sold by PIC Gauges. No agent is authorized to assume for PIC Gauges any liability except as set forth above.

# **RETURNS**

# What items can be returned?

Any standard product (excluding special order items) may be returned within 30 days for an exchange or refund (less shipping charges).

Shipping discrepancies must be reported within 7 days.

# Who pays for return shipping?

The customer is responsible for return shipping costs unless PIC Gauges has made an error in shipment or an item arrives damaged or defective. In the event of a shipment error or a damaged/defective item, PIC Gauges will be responsible for the cost of ground shipping only, and only for returns made within 30 days of the purchase date.

Please contact PIC Gauges if your defective merchandise is less than \$10.00 in value as returning the merchandise may not be necessary.

### How do I return an item?

Contact PIC Gauges for an RGA number and shipping instructions.

# Disclaimer

All prices and policies are subject to change without notice.

# PRESSURE CONVERSION CHART



	psi	ATMs	In. Hg	In. wc	Oz/in²	mm wc	cm wc	mbar	Pa (N/m²)	mm Hg (Torr)	cm Hg	Kg/cm²	кРа	BAR	mPa		
mPa	145.04	9.869	295.3	4019	2321	102,074	10,207	10,000	1,000,000	7,500	750	10.2	1,000	10	-		
BAR	14.504	0.987	29.53	401.9	232.1	10,210	1021	1,000	100,000	750	75	1.02	100	<del>-</del>	0.1		
кРа	0.14504	0.00987	0.295	4.019	2.321	102.07	10.207	10	1,000	7.05	0.75	0.0102	1	0.01	0.001		
Kg/ cm²	14.22	0.968	28.96	394.1	227.6	100,010	1,001	7.086	98,067	735.6	73.56	1	98.07	0.981	0.0981		
cm Hg	0.1934	0.01316	0.394	5.358	3.1	136.1	13.61	13.33	1,333	10	1	0.0136	1.333	0.01333	0.00133		ic
mm Hg (Torr)	0.01934	0.001316	0.0394	0.536	0.310	13.61	1.361	1.333	133.3	1	0.1	0.00136	0.1333	0.001333	0.000133		Metric
Pa (N/m²)	0.000145	0.00001	0.000295	0.00402	0.00232	0.102	0.0102	0.01	-	0.0075	0.00075	0.00001	0.001	0.00001	0.000001		
mbar	0.0145	0.000987	0.0295	0.4012	0.2321	10.21	1.021	1	100	0.75	0.075	0.00102	0.1	0.001	0.0001		
cm wc	0.01421	0.000967	0.0289	0.3937	0.227	10	1	0.98	86	0.735	0.0735	0.001	0.098	0.00098	0.0001	Low Pressure	
mm	0.001421	0.000097	0.00289	0.0394	0.0227	1	0.1	0.098	9.8	0.0735	0.00735	0.0001	0.0098	0.000098	0.00001	Low Pi	
Oz/in²	0.0625	0.00425	0.1273	1.732	_	43.986	4.40	4.31	431	3.232	0.323	0.0044	0.431	0.00431	0.00043		
ln.wc	0.0361	0.00246	0.0735	<del>-</del>	0.5775	25.4	2.54	2.488	248.8	1.866	0.187	0.00254	0.249	0.00249	0.00025		
In. Hg	0.4912	0.03342	-	13.61	7.858	345.7	34.57	33.86	3,386	25.4	2.54	0.0345	3.386	0.0339	0.00339		Standard
ATMs	14.7	1	29.92	407.2	235.1	10,343	1,034.30	1,013	101,325	092	92	1.033	101.3	1.013	0.1013		
psi	_	0.0681	2.036	27.71	16	703.8	70.38	68.95	6,895	51.715	5.17	0.0704	6.895	0.0689	0.0069		
	psi	ATMs	In. Hg	In. wc	Oz/in²	mm wc	cm wc	mbar	Pa (N/m²)	mm Hg (Torr)	cm Hg	Kg/cm²	кРа	BAR	mPa		



# **TEMPERATURE CONVERSION CHART**

°F	°C					
-400.0	-240.0					
-364.0	-220.0					
-328.0	-200.0					
-292.0	-180.0					
-256.0	-160.0					
-220.0	-140.0					
-184.0	-120.0					
-148.0	-100.0					
-112.0	-80.0					
-76.0	-60.0					
-58.0	-50.0					
-49.0	-45.0					
-40.0	-40.0					
-31.0	-35.0					
-22.0	-30.0					
-13.0	-25.0					
-4.0	-20.0					
5.0	-15.0					
14.0	-10.0					
17.6	-8.0					
21.2	-6.0					
24.8	-4.0					
28.4	-2.0					
32.0	0.0					

°F	°C				
35.6	2.0				
39.2	4.0				
42.8	6.0				
46.4	8.0				
50.0	10.0				
59.0	15.0				
68.0	20.0				
77.0	25.0				
86.0	30.0				
95.0	35.0				
104.0	40.0				
113.0	45.0				
122.0	50.0				
131.0	55.0				
140.0	60.0				
149.0	65.0				
158.0	70.0				
167.0	75.0				
176.0	80.0				
185.0	85.0				
194.0	90.0				
203.0	95.0				
212.0	100.0				
230.0	110.0				

°F	°C				
248.0	120.0				
266.0	130.0				
284.0	140.0				
302.0	150.0				
320.0	160.0				
338.0	170.0				
356.0	180.0				
374.0	190.0				
392.0	200.0				
428.0	220.0				
464.0	240.0				
500.0	260.0				
536.0	280.0				
572.0	300.0				
608.0	320.0				
644.0	340.0				
680.0	360.0				
716.0	380.0				
752.0	400.0				
788.0	420.0				
824.0	440.0				
860.0	460.0				
896.0	480.0				

# **Temperature Conversion Formulas**

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# NEW PRODUCTS & CUSTOM SOLUTIONS







