



# PRESSURE & TEMPERATURE INSTRUMENTS

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#### SECTION SIX: ACCESSORIES

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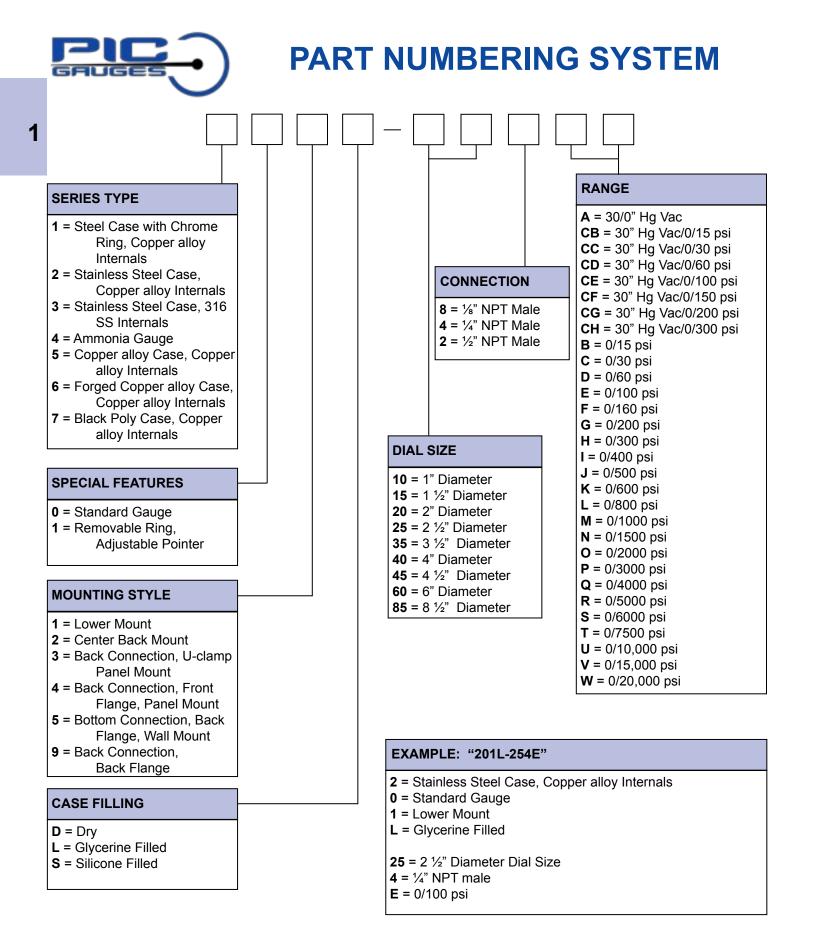
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PRESSURE GAUGE SELECTION

#### 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 $\frac{1}{6}$ ", $\frac{1}{4}$ " and $\frac{1}{2}$ " 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.

NOTE: While this is a good model to follow, it does not guarantee that the gauge will meet all requirements. Please contact your PIC Gauges representative with any questions. 1-888-650-6923 / www.picgauges.com



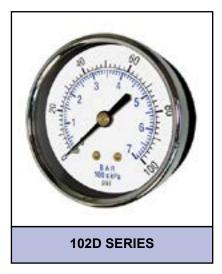
NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

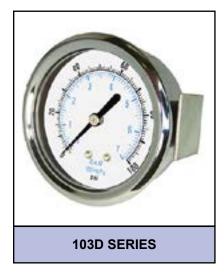
# **100 SERIES UTILITY GAUGE**

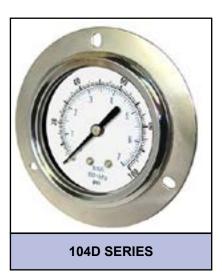


Utility gauge for commercial and industrial markets Steel case, chrome bezel, copper alloy internals









#### STANDARD DIAL CONFIGURATIONS FOR 100 SERIES

Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg	0/30 psi	5 psi	0.5 psi	0/1000 psi	200 psi	10 psi
30/0/15 psi	10" hg/5 psi	1" hg/0.5 psi	0/60 psi	10 psi	1 psi	0/1500 psi	200 psi	20 psi
30/0/30 psi	10" hg/10psi	1" hg/1 psi	0/100 psi	20 psi	2 psi	0/2000 psi	400 psi	50 psi
30/0/60 psi	10" hg/10psi	2" hg/1 psi	0/160 psi	20 psi	2 psi	0/3000 psi	500 psi	50 psi
30/0/100 psi	30" hg/20psi	5" hg/2 psi	0/200 psi	40 psi	5 psi	0/4000 psi	800 psi	100 psi
30/0/150 psi	30" hg/20psi	5" hg/2 psi	0/300 psi	50 psi	5 psi	0/5000 psi	1000 psi	100 psi
30/0/300 psi	30" hg/50psi	10" hg/5 psi	0/400 psi	50 psi	5 psi	0/6000 psi	1000 psi	100 psi
0/15 psi	2 psi	0.1 psi	0/600 psi	100 psi	10 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.

A Division of Explorement C \_\_\_\_\_ II = D \_\_\_\_ I



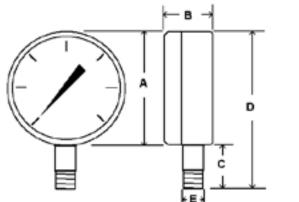
### 101D UTILITY GAUGE LOWER MOUNT

#### **1** 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
Lens	Plastic (4 1/2" = glass lens)
Pointer	Black aluminum
Connection	Lower mount
	1 ½" dial = ⅛" NPT
	2" dial = 1/8" or 1/4" NPT
	2 ½" dial = ¼" NPT
	3 ½" dial = ¼" NPT
	4 ½" dial = ¼" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
	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.



				P = 1		
Dial	Unit	Α	В	С	D	E
1 1⁄2"	ln.	1.64"	0.93"	0.65"	2.26"	
I 72	mm	42	24	17	57	1∕8" NPT
2"	ln.	2.07"	1.06"	0.83"	2.83"	1⁄8"or 1⁄4"
2	mm	53	27	21	72	NPT
2 1/2"	ln.	2.5"	1.13"	0.88"	3.31"	1⁄4" NPT
Ζ /2	mm	63	29	22	84	74 NP I
<b>9</b> 1/"	ln.	3.54"	1.12"	1.02"	4.49"	1⁄4" NPT
3 1⁄2"	mm	90	28	26	114	74 NP I
4 1⁄2"	ln.	4.79"	1.12"	1.10"	5.8"	1⁄4" NPT
4 1/2	mm	122	29	28	147	



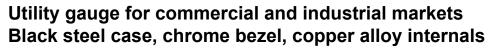
#### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 109
- Glass Lens
- Stainless Steel Case
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.20 lbs (0.10 kg)	200
2"	0.26 lbs (0.12 kg)	100
2 1⁄2"	0.34 lbs (0.15 kg)	125
3 1⁄2"	0.50 lbs (0.23 kg)	50
4 ½"	0.60 lbs (0.27 kg)	50

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



#### **SPECIFICATIONS**

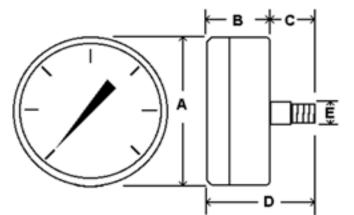
Dial

Case Wetted Parts Bezel Lens Pointer Connection

1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm), 3 <sup>1</sup>/<sub>2</sub>" (88 mm), 4 <sup>1</sup>/<sub>2</sub>" (114 mm) Black steel, dry non-fillable Copper alloy Chrome plated steel, fixed Plastic Black aluminum Center back mount 1 ½" dial = ¼" NPT 2" dial = 1/4" OF 1/4" NPT 2 ½" dial = ¼" NPT 3 1/2" dial = 1/4" NPT 4 1/2" dial = 1/4" NPT 3-2-3% of span, ASME B40.1 Grade B

Scale Accuracy Ambient Temp Standard: psi/BAR (x 100 = kPa) -50° F to 160° F

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"	1.54"	1∕₄" NPT
1 /2	mm	42	24	16	39	/8 INF I
2"	ln.	2.07"	1.03"	0.89"	1.90"	1⁄8"or 1⁄4"
2	mm	53	26	23	48	NPT
2 ½"	ln.	2.5"	1.17"	0.90"	1.97"	1⁄4" NPT
Ζ /2	mm	63	30	23	50	74 NP I
3 ½"	ln.	3.49"	1.22"	0.83"	2.02"	1⁄4" NPT
J /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 109
- Glass Lens
- Stainless Steel Case
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	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 1⁄2"	0.45 lbs (0.22 kg)	50
4 1⁄2"	0.65 lbs (0.30 kg)	25



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

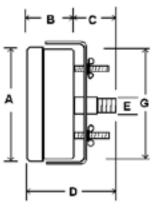
#### 1 Utility gauge for commercial and industrial markets Chrome case and bezel, copper alloy internals

#### SPECIFICATIONS

Dial	1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm), 3 ½" (88 mm)
Case	Chrome plated steel, dry non-fillable
	$(3 \frac{1}{2})$ = painted steel with plastic, twist-off lens)
Wetted Parts	Copper alloy
Bezel	Chrome plated steel, fixed
Lens	Plastic
Pointer	Black aluminum
Connection	Center back mount with u-clamp
	1 ½" dial = 1/8" NPT
	2" dial = 1/8" or 1/4" NPT
	2 ½" dial = ¼" NPT
	3 ½" dial = ¼" 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	G	E
1 1/2"	ln.	1.84"	1.03"	0.63"	1.61"	1.61"	1∕₄" NPT
1 /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"
2	mm	59	30	19	47	52	NPT
2 1/2"	ln.	2.68"	1.12"	0.76"	1.87"	2.44"	1⁄4" NPT
2 /2	mm	68	28	19	48	62	/4 INF I
3 1/2"	ln.	3.98"	1.23"	0.67"	2.02"	3.59"	1/" NDT
5 /2	mm	101	31	17	51	91	1⁄4" NPT



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 109
- Glass Lens
- Stainless Steel Case
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	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 1⁄2"	0.60 lbs (0.26 kg)	50

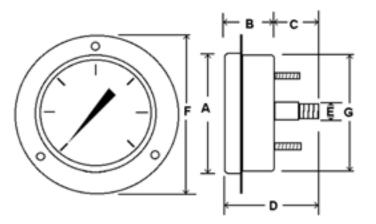
# 104D UTILITY GAUGE

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) - See 203D-354 p. 20
Case	Chrome plated steel, dry non-fillable
Wetted Parts	Copper alloy
Bezel	Chrome plated steel, fixed
Lens	Plastic
Pointer	Black aluminum
Connection	Center back mount with front flange
	Ships with u-clamp
	1 ½" dial = 1⁄8" NPT
	2" dial = 1/8" or 1/4" NPT
	2 ½" dial = ¼" 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	F	G	E
1 1⁄2"	ln.	1.84"	1.03"	0.63"	1.61"	2.23"	1.61"	1∕₃" NPT
1 /2	mm	47	26	16	41	57	41	/8 INF I
2"	ln.	2.31"	1.18"	0.73"	1.84"	2.81"	2.04"	1⁄8"or 1⁄4"
2	mm	59	30	19	47	71	52	NPT
2 1/2"	ln.	2.68"	1.12"	0.76"	1.87"	3.47"	2.44"	1⁄4" NPT
2 /2	mm	68	28	19	48	88	62	/4 INP I

For complete flange dimensions, see page 123.



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 109
- Glass Lens
- Stainless Steel Case
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

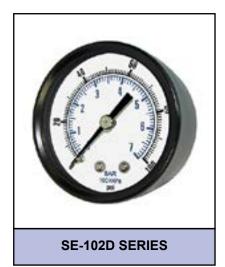
Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.20 lbs (0.10 kg)	upon request
2"	0.35 lbs (0.16 kg)	upon request
2 1⁄2"	0.40 lbs (0.18 kg)	upon request



### 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

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.

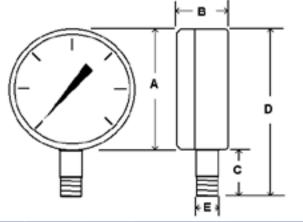
### SE-101D UTILITY GAUGE LOWER MOUNT

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

#### SPECIFICATIONS

Dial Case	1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm)
Case Wetted Parts	Black steel, dry non-fillable Copper alloy
Bezel	Black painted steel, fixed
Lens	Glass
Pointer	Black aluminum
Connection	Lower mount
	1 ½" dial = 1/8" NPT
	2" dial = 1/8" or 1/4" NPT
	2 ½" dial = ¼" 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
1 1/2"	ln.	1.64"	0.93"	0.63"	2.27"	1⁄8" NPT
1 /2	mm	42	24	16	58	/8 INF I
2"	ln.	2.07"	1.03"	0.83"	2.90"	1⁄8"or 1⁄4"
2	mm	53	26	21	74	NPT
2 1/2"	ln.	2.5"	1.17"	0.86"	3.36"	1⁄4" NPT
∠ /2	mm	63	30	22	26	/4 INF I





#### AVAILABLE OPTIONS\*

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Plastic Lens
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.10 lbs (0.06 kg)	100
2"	0.20 lbs (0.10 kg)	100
2 1⁄2"	0.30 lbs (0.14 kg)	100



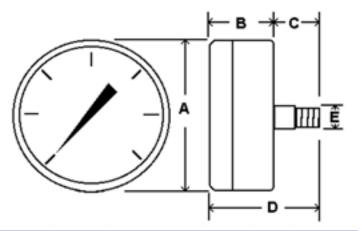
### SE-102D UTILITY GAUGE CENTER BACK MOUNT

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

#### SPECIFICATIONS

Dial Case	1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm) Black steel, dry non-fillable
Wetted Parts	Copper alloy
Bezel	Black painted steel, fixed
Lens	Glass
Pointer	Black aluminum
Connection	Center back mount
	1 ½" dial = ⅛" NPT
	2" dial = 1/8" or 1/4" NPT
	2 ½" dial = ¼" 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	Е
1 1/2"	ln.	1.64"	0.93"	0.63"	1.54"	1∕%" NPT
1 /2	mm	42	24	16	39	
2"	ln.	2.07"	1.03"	0.83"	1.86"	1⁄8" or 1⁄4"
2	mm	53	26	21	47	NPT
2 1⁄2"	ln.	2.5"	1.17"	0.90"	1.97"	1⁄4" NPT
2 /2	mm	63	30	23	50	/4 INF I



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Plastic Lens
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.15 lbs (0.06 kg)	100
2"	0.25 lbs (0.10 kg)	100
2 1⁄2"	0.37 lbs (0.17 kg)	100

### SEP-100 UTILITY GAUGE PLASTIC CASE



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

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.



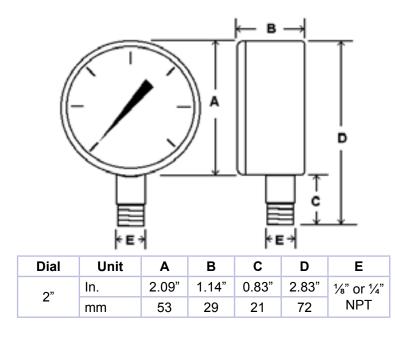
### SEP-101D UTILITY GAUGE PLASTIC CASE

#### **1** Plastic case utility gauge for commercial and industrial markets Black plastic case, copper alloy internals

#### SPECIFICATIONS

Dial Case Wetted Parts Lens	2" (50 mm) Plastic, dry non-fillable Copper alloy Plastic
Pointer	Black aluminum
Connection	Lower mount
	2" dial = 1/8" or 1/4" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
Accuracy	3-2-3% of span, ASME B40.1 Grade B
•	•
Ambient Temp	-40° F to 140° F

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





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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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

### SEP-102D UTILITY GAUGE PLASTIC CASE

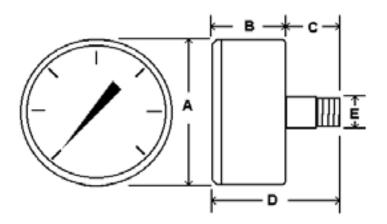


Plastic case utility gauge for commercial and industrial markets Black plastic case, copper alloy internals

#### SPECIFICATIONS

Dial Case Wetted Parts Lens Pointer Connection Scale Accuracy Ambient Temp 2" (50 mm) Plastic, dry non-fillable Copper alloy Plastic Black aluminum Center back mount 2" dials =  $\frac{1}{4}$ " NPT Standard: psi/BAR (x 100 = kPa) 3-2-3% of span, ASME B40.1 Grade B -40° F to 140° F

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



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



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

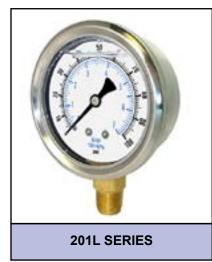
\*Lead times/minimums may apply

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









#### STANDARD DIAL CONFIGURATIONS FOR 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	0.5 psi	0/1000 psi	
30/0/15 psi	10" hg/5 psi	1" hg/0.5 psi		0/100 psi	20 psi	2 psi	0/1500 psi	
30/0/30 psi	10" hg/5psi	1" hg/0.5 psi		0/160 psi	20 psi	2 psi	0/2000 psi	
30/0/60 psi	30" hg/10psi	2" hg/1 psi		0/200 psi	40 psi	5 psi	0/3000 psi	
30/0/100 psi	30" hg/20psi	5" hg/2 psi		0/300 psi	50 psi	5 psi	0/4000 psi	
30/0/150 psi	30" hg/30psi	5" hg/2 psi		0/400 psi	50 psi	5 psi	0/5000 psi	
30/0/300 psi	30" hg/50psi	10" hg/5 psi		0/500 psi	100 psi	10 psi	0/6000 psi	
0/15 psi	2 psi	0.1 psi		0/600 psi	100 psi	10 psi	0/10,000 psi	
0/30 psi	5 psi	0.5 psi		0/800 psi	100 psi	10 psi	0/15,000 psi	
NOTE: Deserves of	<b></b>		- 1	El 41				

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. Figure

Intervals 200 psi

200 psi

400 psi

500 psi

500 psi

1000 psi

1000 psi

2000 psi

2000 psi

Graduation Intervals

20 psi

20 psi

40 psi

50 psi

50 psi

100 psi

100 psi

200 psi

200 psi

## 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

Dial       1 ½" (40 mm), 2" (50 mm), 2 ½" (63 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 ½" dial = ½" NPT         2 'dial = ½" or ½" NPT         2 'dial = 2" NPT         2 'dial = 2" or ½" A 4" ASME B40.1 Grade B         Ambient Temp       Glycerine Filled = 30° F to 160° F         Design meets or exceeds ASME B40.100 pressure gauge standard.         View and the state of a couracy, NIST traceable         0 Dry = -30° F to 180° F         Design meets or exceeds ASME B40.100 pressure gauge standard.         Of lat       Unit         A mbient Temp       Approximate shipping wetleftrs/         Dial       Unit       A         B C       D       E         Dial       Unit       A       B       C	SPECIFICATIONS		
Accuracy       3-2-3% of span 1 ½" & 2" ASME B40.1 Grade B         Ambient Temp       Glycerine Filled = 30° F to 180° F       Certificate of Accuracy, NIST traceable         Design meets or exceeds ASME B40.100 pressure gauge standard.       Certificate of Accuracy, NIST traceable         Image: Comparison of the system of the sys	Case Wetted Parts Bezel Lens Pointer Connection	4" (100 mm) Stainless steel, glycerine filled Copper alloy Stainless steel, fixed Polycarbonate Black aluminum Lower mount $1 \frac{1}{2}$ " dial = $\frac{1}{6}$ " NPT 2" dial = $\frac{1}{6}$ " or $\frac{1}{4}$ " NPT 2 $\frac{1}{2}$ " dial = $\frac{1}{4}$ " or $\frac{1}{4}$ " NPT 4" dial = $\frac{1}{4}$ " or $\frac{1}{2}$ " NPT Standard: psi/BAR (x 100 = kPa)	
Ambient Temp Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F Design meets or exceeds ASME B40.100 pressure gauge standard.	Accuracy	3-2-3% of span 1 1/2" & 2" ASME B40.1 Gra	
<ul> <li>Liquid Fill Options, see page 176</li> <li>Anti-Vibration Movement, see page 109</li> <li>Glass Lens</li> <li>Dry, Fillable Case</li> <li>Cleaned for Oxygen Service (dry only)</li> <li>Special Connection Size</li> <li>Protective Rubber Cover, see page 121</li> <li>Max/Min Pointer, see page 122</li> <li>*Lead times/minimums may apply</li> <li>APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES</li> <li>Dial Size Est. Unit Weight</li> <li>1½" 0.20 lbs</li> <li>100</li> </ul>	Ambient Temp	Glycerine Filled = 30° F to 160° F	<ul><li>Certificate of Accuracy, NIST traceable</li></ul>
Weight         Weight           1 ½"         0.20 lbs         100	Design meets or exce	eds ASME B40.100 pressure gauge standard	<ul> <li>Anti-Vibration Movement, see page 109</li> <li>Glass Lens</li> <li>Dry, Fillable Case</li> <li>Cleaned for Oxygen Service (dry only)</li> <li>Special Connection Size</li> <li>Protective Rubber Cover, see page 121</li> <li>Max/Min Pointer, see page 122</li> <li>*Lead times/minimums may apply</li> </ul>
(0 10 kg)			
	Dial Unit		

					두드 커	
Dial	Unit	Α	В	С	D	E
1 1⁄2"	In.	1.85"	1.00"	0.67"	2.28"	1⁄%" NPT
1 72	mm	47	25	17	58	78 NPT
2"	In.	2.27"	1.20"	0.91"	2.95"	1⁄8" or 1⁄4"
	mm	58	31	23	75	NPT
2 1⁄2"	ln.	2.80"	1.40"	1.07"	3.55"	1⁄4" NPT
Ζ /2	mm	71	36	27	90	74 NPT
۸"	ln.	4.29"	1.75"	1.17"	5.21"	1⁄4" or 1⁄2"
4"	mm	109	45	30	132	NPT

Otobial and Otobial Oco

2"

2 1⁄2"

4"

2

0.40 lbs

(0.18 kg)

0.55 lbs

(0.24 kg)

1.5 lbs

(0.68 kg)

100

50

30



## 202L LIQUID FILLED CENTER BACK MOUNT

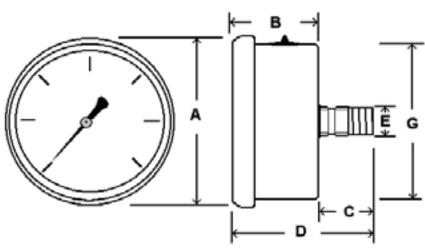
Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals

#### SPECIFICATIONS

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Dial	1 ½" (40 mm), 2" (50 mm), 2 ½" (63 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
	1 ½" dial = 1⁄8" NPT
	2" dial = ¼" or ¼" NPT
	2 ½" dial = ¼" NPT
	4" dial = ¼" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
	Single scale psi available from stock - 2 <sup>1</sup> / <sub>2</sub> " Only
Accuracy	3-2-3% of span 1 ½" & 2" ASME B40.1 Grade B
	2-1-2% of span 2 1/2" & 4" ASME B40.1 Grade A
Ambient Temp	Glycerine Filled = 30° F to 160° F
	Dry = -30° F to 180° F

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



Dial	Unit	Α	В	С	D	E	G
1 ½"	In.	1.85"	1.02"	0.72"	1.74"	1∕₄" NPT	1.63"
1 /2	mm	47	26	18	44	78 NP1	42
2"	ln.	2.28"	1.18"	0.94"	2.08"	¹⁄₃" or	2.05"
2	mm	58	30	24	53	1⁄4" NPT	52
0.1/"	ln.	2.80"	1.34"	1.34" 0.94" 2.	2.28"		2.48"
2 1⁄2"	mm	71	34	24	58	1⁄4" NPT	63
4"	ln.	4.29"	1.78"	1.37"	3.15"	1⁄4" NPT	3.91"
4	mm	109	45	35	80	74 NP I	99



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Glass Lens
- Dry, Fillable Case
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.20 lbs (0.10 kg)	100
2"	0.40 lbs (0.18 kg)	100
2 1⁄2"	0.55 lbs (0.26 kg)	50
4"	1.50 lbs (0.70 kg)	30

# 203L LIQUID FILLED U-CLAMP PANEL MOUNT

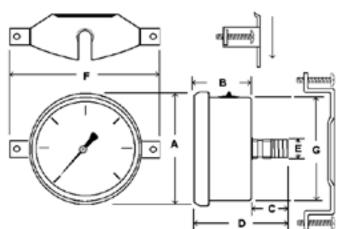


Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals

#### SPECIFICATIONS

Dial	1 ½" (40 mm), 2" (51 mm), 2 ½" (63 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 ½" dial = 1⁄8" NPT
	2" dial = ¼" or ¼" NPT
	2 ½" dial = ¼" NPT
	4" dial = ¼" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
	Single scale psi available from stock - 2 1/2" Only
Accuracy	3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B
	2-1-2% of span 2 1/2" & 4" ASME B40.1 Grade A
Ambient Temp	Glycerine Filled = 30° F to 160° F
	Dry = -30° F to 180° F

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



Dial	Unit	Α	В	С	D	Е	F	G
1 1⁄2"	ln.	1.85"	1.02"	0.72"	1.74"		2.75"	1.63"
1 72	mm	47	26	18	44	1∕8" NPT	70	42
2"	ln.	2.28"	1.18"	0.94"	2.08"	¹⁄₅" or	3.13"	2.05"
2	mm	58	30	24	53	¼"NPT	80	52
2 1/2"	ln.	2.80"	1.34"	0.94"	2.28"	1⁄4" NPT	3.84"	2.48"
2 72	mm	71	34	24	58		98	63
4"	ln.	4.29"	1.78"	1.37"	3.15"	1⁄4" or 1∕2"NPT	5.6"	3.91"
4	mm	109	45	35	80		141	99



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Glass Lens
- Dry, Fillable Case
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.30 lbs (0.13 kg)	100
2"	0.50 lbs (0.23 kg)	100
2 1⁄2"	0.65 lbs (0.29 kg)	50
4"	1.70 lbs (0.76 kg)	30



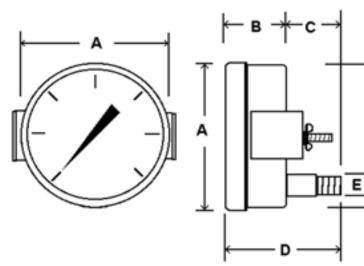
### 3 <sup>1</sup>/<sub>2</sub>" 203D FILLABLE U-CLAMP PANEL MOUNT

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
	Bezel	Stainless steel, fixed
	Lens	Polycarbonate
	Pointer	Black aluminum
	Connection	Lower back mount with u-clamp
		3 ½" dial = ¼" NPT
	Scale	Standard: psi/BAR (x 100 = kPa)
	Accuracy	2-1-2% of span, ASME B40.1 Grade A
	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.



30 militario	1	
2	3	
P	-	5
BAR BAR TODHAPA PSI	4	1
	2	

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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
3 1⁄2"	0.60 lbs (0.28 kg)	50

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

# **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), 2 ½" (63 mm), 3 ½" (88 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 front flange
	1 ½" dial = 1⁄8" NPT
	2" dial = ¼" or ¼" NPT
	2 ½" dial = ¼" NPT
	3 <sup>1</sup> ⁄ <sub>2</sub> " dial = <sup>1</sup> ⁄ <sub>4</sub> " NPT - ships with u-clamp
	4" dial = ¼" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
	Single scale psi available from stock - 2 <sup>1</sup> / <sub>2</sub> " Only
Accuracy	3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B
	2-1-2% of span 2 1/2" & 4" ASME B40.1 Grade A
Ambient Temp	Glycerine Filled = 30° F to 160° F
-	Dry = -30° F to 180° F



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

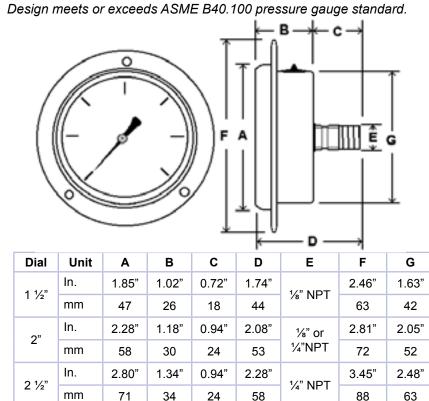
- A Certificate of Accuracy, NIST traceable
  - Custom Dial
  - Liquid Fill Options, see page 176
  - Anti-Vibration Movement, see page 109
  - Glass Lens
  - Dry, Fillable Case
  - Cleaned for Oxygen Service (dry only)
  - Special Connection Size
  - Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.30 lbs (0.13 kg)	100
2"	0.50 lbs (0.23 kg)	100
2 1⁄2"	0.60 lbs (0.29 kg)	50
4"	1.70 lbs (0.76 kg)	30

For complete flange dimensions, see page 123.



1.37"

35

3.15"

80

1⁄4" or

1/2"NPT

5.14"

130

3.91"

99

109 A Division of Engineered Specialty Products, Inc.

4.29"

1.78"

45

In.

mm

4"



### 210 SERIES FILLABLE GAUGE

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









#### STANDARD DIAL CONFIGURATIONS FOR 210 SERIES

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	0.5 psi
30/0/30 psi	10" hg/5 psi	1" hg/0.5 psi	0/100 psi	20 psi	2 psi
30/0/60 psi	30" hg/10psi	2" hg/1 psi	0/160 psi	20 psi	2 psi
30/0/100 psi	30" hg/20psi	5" hg/2 psi	0/200 psi	40 psi	5 psi
30/0/150 psi	30" hg/30psi	5" hg/2 psi	0/300 psi	50 psi	5 psi
0/15 psi	2 psi	0.1 psi	0/400 psi	50 psi	5 psi
0/30 psi	5 psi	0.25 psi	0/600 psi	100 psi	10 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 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

### 211D REMOVABLE BEZEL LOWER MOUNT



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

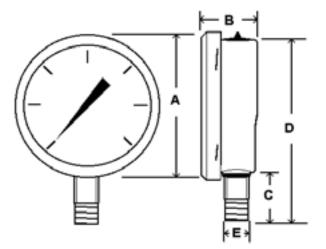
#### SPECIFICATIONS

Dial Case Wetted Parts Bezel Lens Pointer Connection Scale Accuracy

Ambient Temp

2  $\frac{1}{2}$ " (63 mm) Stainless steel, dry - fillable Copper alloy Removable, stainless steel Glass Adjustable, black aluminum Lower mount 2  $\frac{1}{2}$ " dial =  $\frac{1}{4}$ " NPT Standard: psi/BAR (x 100 = kPa) 2-1-2% of span ASME B40.1 Grade A 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	Е
2 ½"	ln.	2.83"	1.42"	1.06"	3.54"	1⁄4"
Z /2	mm	72	36	27	90	NPT



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Plastic Lens
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.40 lbs (0.20 kg)	100



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

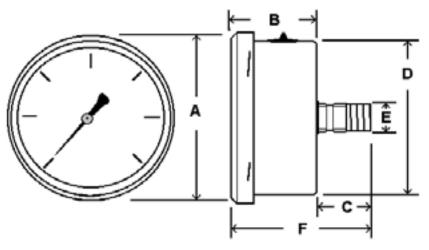
Dry yet fillable gauge with removable bezel, adjustable pointer Stainless steel case and bezel, copper alloy internals

#### **SPECIFICATIONS**

Dial 2 Case

2 ½" (63 mm), Stainless steel, dry yet fillable Copper alloy Removable, stainless steel Glass
Adjustable, black aluminum
Center back mount
$2\frac{1}{2}$ dial = $\frac{1}{4}$ NPT
Standard: psi/BAR (x 100 = kPa)
2-1-2% of span ASME B40.1 Grade A
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
2 1/2"	ln.	2.83"	1.37"	1.00"	2.49"	1/4"	2.29"
2 /2	mm	72	35	25	63	NPT	58



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Plastic Lens
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.40 lbs (0.20 kg)	50

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

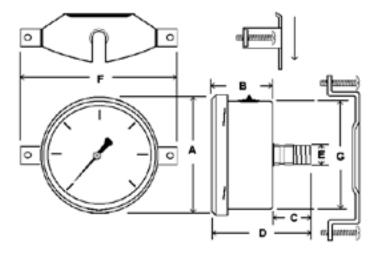


Dry yet fillable gauge with removable bezel, adjustable pointer Stainless steel case and bezel, copper alloy internals

#### SPECIFICATIONS

Dial	2 ½" (63 mm)
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 u-clamp
	2 ½" dial = ¼" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
Accuracy	2-1-2% of span ASME B40.1 Grade A
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	Е	F	G
2 1/2"	ln.	2.83"			2.29"	1⁄4"	3.84"	2.48"
2 /2	mm	72	35	25	58	NPT	98	63



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Plastic Lens
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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

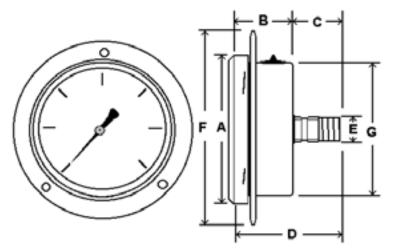
# 214D REMOVABLE BEZEL FRONT FLANGE PANEL MOUNT

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 ¼" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
Accuracy	2-1-2% of span ASME B40.1 Grade A
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	Е	F	G
0.1/"	ln.	2.83"	1.37"	1.00"	2.29"	1⁄4"	3.45"	2.48"
2 1⁄2"	mm	72	35	25	58	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 page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Plastic Lens
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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

# **SEC-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	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg	0/60 psi	10 psi	1 psi	0/1000 psi	200 psi	20 psi
30/0/30 psi	10" hg/10psi	1" hg/1 psi	0/100 psi	20 psi	2 psi	0/1500 psi	200 psi	20 psi
30/0/60 psi	10" hg/10psi	2" hg/1 psi	0/160 psi	20 psi	2 psi	0/2000 psi	400 psi	40 psi
30/0/100 psi	30" hg/20psi	5" hg/2 psi	0/200 psi	40 psi	4 psi	0/3000 psi	500 psi	50 psi
30/0/150 psi	30" hg/20psi	5" hg/2 psi	0/300 psi	50 psi	5 psi	0/4000 psi	500 psi	50 psi
30/0/300 psi	30" hg/50psi	10" hg/5 psi	0/400 psi	50 psi	5 psi	0/5000 psi	1000 psi	100 psi
0/15 psi	2 psi	0.1 psi	0/500 psi	100 psi	10 psi	0/6000 psi	1000 psi	100 psi
0/30 psi	5 psi	0.5 psi	0/600 psi	100 psi	10 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.

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### SEC-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
2	Case

Bezel

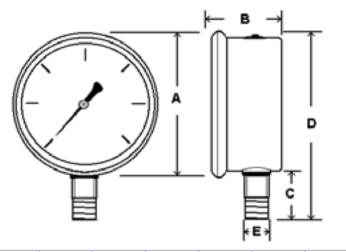
Lens Pointer

Scale

Accuracy

2 ½" (63 mm) Stainless steel, glycerine filled Wetted Parts Copper alloy Stainless steel, fixed Polycarbonate Black aluminum Connection Lower mount 2 1/2" dial = 1/4" NPT Standard: psi/BAR (x 100 = kPa) 3-2-3% of span ASME B40.1 Grade B Glycerine Filled =  $30^{\circ}$  F to  $160^{\circ}$  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 1/2"	ln.	2.65"	1.20"	0.88"	3.30"	1⁄4"
∠ /2	mm	68	30	22	84	NPT



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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

# SEC-202L LIQUID FILLED CENTER BACK MOUNT

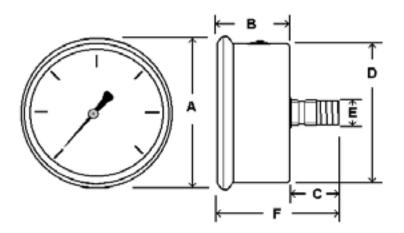


Glycerine filled for added durability in applications where vibration or pulsation is present Stainless steel case and bezel, copper alloy internals

#### SPECIFICATIONS

Dial	2 ½" (63 mm),
Case	Stainless steel, glycerine filled
Wetted Parts	Copper alloy
Bezel	Stainless steel, fixed
Lens	Polycarbonate
Pointer	Black aluminum
Connection	Center back mount
	2 ½" dial = ¼" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
Accuracy	3-2-3% of span ASME B40.1 Grade B
Ambient Temp	Glycerine Filled = 30° F to 160° F
	Dry = -30° F to 180° F

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



	Dial	Unit	Α	В	С	D	Е
	2 1⁄2"	ln.	2.65"	1.21"	0.91"	2.44"	1⁄4"
		mm	68	31	23	62	NPT



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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



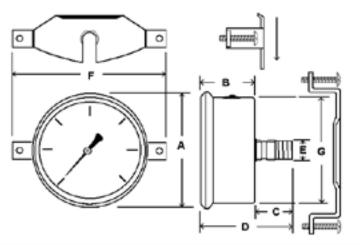
### SEC-203L LIQUID FILLED U-CLAMP PANEL MOUNT

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

#### SPECIFICATIONS

•	Dial	2 ½" (63 mm),
2	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
		2 ½" dial = ¼" NPT
	Scale	Standard: psi/BAR (x 100 = kPa)
	Accuracy	3-2-3% of span ASME B40.1 Grade B
	Ambient Temp	Glycerine Filled = 30° F to 160° F
		Dry = -30° F to 180° F

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



Dial	Unit	Α	В	С	D	Е	F	G
2 1⁄2"	ln.				2.12"	1⁄4"	3.84"	2.44"
2 /2	mm	68	31	23	54	NPT	98	61



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Special Connection Size
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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

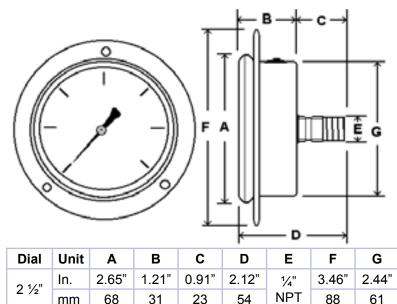
# SEC-204L LIQUID FILLED

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

#### SPECIFICATIONS

Dial	2 ½" (63 mm)
Case	Stainless steel, glycerine filled
Wetted Parts	Copper alloy
Bezel	Stainless steel, fixed
Lens	Polycarbonate
Pointer	Black aluminum
Connection	Center back mount with front flange $2 \frac{1}{2}$ dial = $\frac{1}{4}$ NPT
Scale	Standard: psi/BAR (x 100 = kPa)
Accuracy	3-2-3% of span ASME B40.1 Grade B
Ambient Temp	Glycerine Filled = 30° F to 160° F
-	Dry = -30° F to 180° F

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



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 page 109
- Dry, Fillable Case
- Special Connection Size
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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

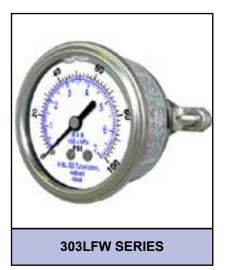


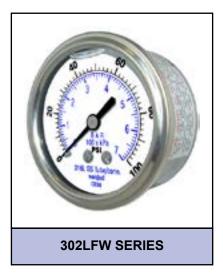
### 300 SERIES ALL STAINLESS LIQUID FILLED GAUGE

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



301LFW SERIES







#### STANDARD DIAL CONFIGURATIONS FOR 300 SERIES - 2 1/2" 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/.5 psi
30/0/30 psi	10" hg/5psi	1" hg/.5 psi
30/0/60 psi	10" hg/10psi	2" hg/1 psi
30/0/100 psi	30" hg/20psi	5" hg/2 psi
30/0/150 psi	30" hg/20psi	5" hg/2 psi
30/0/300 psi	30" hg/50psi	10" hg/10psi
0/15 psi	2 psi	0.2 psi
0/30 psi	5 psi	0.5 psi

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

Figure Intervals	Graduation Intervals
400 psi	50 psi
500 psi	50 psi
800 psi	100 psi
1000 psi	100 psi
1000 psi	100 psi
2000 psi	200 psi
2000 psi	200 psi
4000 psi	400 psi
	Intervals 400 psi 500 psi 800 psi 1000 psi 1000 psi 2000 psi 2000 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.

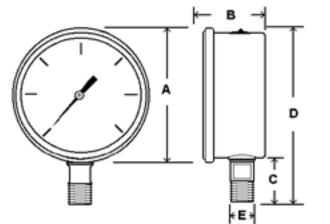
### **301LFW ALL STAINLESS** LOWER MOUNT



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	
Case	Stainless steel, glycerine filled (available dry) Welded case-to-stem connection	8-1 P. 6-1
Wetted Parts	316 stainless steel	
Bezel	Stainless steel, fixed	3
Lens	Polycarbonate	
Pointer	Black aluminum	
Connection	Lower mount 1 ½" dial = ¼" NPT 2" dial = ¼" or ¼" NPT 2 ½" dial = ¼" NPT	I
Scale	Standard: psi/BAR (x 100 = kPa)	
Accuracy	3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B	
Ambient Temp	2-1-2% of span 2 ½" ASME B40.1 Grade A Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F	<ul> <li>Certificate of Accuracy, NIST trace</li> <li>Custom Dial</li> <li>Liquid Fill Options, see page 176</li> </ul>

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



Dial	Unit	Α	В	С	D	Е
1 1⁄2"	ln.	1.84"	1.03"	0.73"	2.32"	1⁄8"
1 72	mm	47	26	19	59	NPT
0"	ln.	2.25"	1.15"	0.91"	2.93"	<sup>1</sup> / <sub>8</sub> "or
2"	mm	57	30	23	75	1⁄4" NPT
O 1/"	ln.	2.70"	1.39"	1"	3.61"	1⁄4"
2 1⁄2"	mm	69	35	25	92	NPT

- eable
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Single Scale
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.20 lbs (0.10 kg)	100
2"	0.40 lbs (0.18 kg)	100
2 1⁄2"	0.55 lbs (0.24 kg)	90



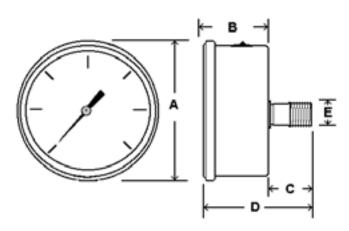
### **302LFW ALL STAINLESS CENTER BACK MOUNT**

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	316 stainless steel
Bezel	Stainless steel, fixed
Lens	Polycarbonate
Pointer	Black aluminum
Connection	Center back mount
	1 ½" dial = 1⁄8" NPT
	2" dial = ¼" or ¼" NPT
	2 ½" dial = ¼" 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 2 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° F to 180° F
	Case Wetted Parts Bezel Lens Pointer Connection Scale Accuracy

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



Dial	Unit	Α	В	С	D	Е
1 1⁄2"	ln.	1.83"	1.01"	0.89"	1.90"	1⁄8"
1 72	mm	46	26	23	48	NPT
2"	ln.	2.25"	1.17"	1.00"	2.17"	¹∕₅" or
2	mm	57	30	25	55	1⁄4"
0.1/"	ln.	2.71"	1.40"	1.31"	2.71"	1⁄4"
2 1⁄2"	mm	69	36	33	69	NPT



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Single Scale
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.20 lbs (0.10 kg)	100
2"	0.40 lbs (0.18 kg)	100
2 1⁄2"	0.60 lbs (0.28 kg)	50

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

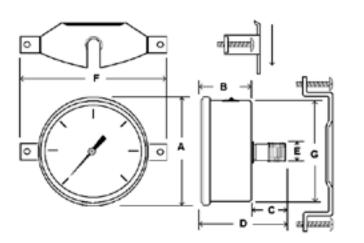


Heavy duty, all stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

#### SPECIFICATIONS

Dial	1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm), 4" (100 mm) - See 313D page 41	
Case	Stainless steel, glycerine filled (available dry) Welded case-to-stem connection	
Wetted Parts	316 stainless steel	8
Bezel	Stainless steel, fixed	11
Lens	Polycarbonate	
Pointer	Black aluminum	14
Connection	Center back mount with u-clamp $1 \frac{1}{2}$ dial = $\frac{1}{8}$ NPT 2" dial = $\frac{1}{8}$ or $\frac{1}{4}$ NPT $2 \frac{1}{2}$ dial = $\frac{1}{4}$ NPT	
Scale	Standard: psi/BAR (x 100 = kPa)	
Accuracy	3-2-3% of span 1 <sup>1</sup> / <sub>2</sub> " & 2" ASME B40.1 Grade B 2-1-2% of span 2 <sup>1</sup> / <sub>2</sub> " ASME B40.1 Grade A	AVA
Ambient Temp	Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F	<ul><li>Cer</li><li>Cus</li></ul>

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



Dial	Unit	Α	В	С	D	Е	F	G
1 1⁄2"	ln.	1.83"	1.01"	0.89"	1.90"	1⁄8"	2.75"	1.61"
1 /2	mm	46	26	23	48	NPT	70	41
2"	ln.	2.25"	1.17"	1.00"	2.17"	1∕₃" or	3.13"	2.03"
2	mm	57	30	25	55	1⁄4"	80	52
2 1⁄2"	ln.	2.71"	1.40"	1.31"	2.71"	1⁄4"	3.84"	2.49"
∠ /2	mm	69	36	33	69	NPT	98	63



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Single Scale
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.30 lbs (0.12 kg)	100
2"	0.45 lbs (0.20 kg)	100
2 1⁄2"	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**

Dial
------

~	_	_	-
L	a	s	е

Wetted Parts Bezel Lens Pointer

Connection

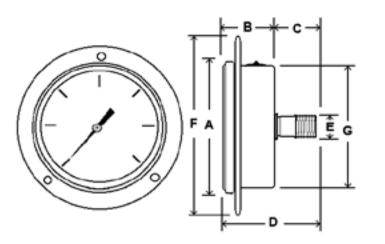
Scale

Accuracy

1 ½" (40 mm), 2" (50 mm), 2 ½" (63 mm), 4" (100 mm) - See 314D page 42 6" (150 mm) - See 6004 page 55 Stainless steel, glycerine filled (available dry) Welded case-to-stem connection 316 stainless steel Stainless steel, fixed Polycarbonate Black aluminum Center back mount with front flange 1 ½" dial = 1/8" NPT 2" dial = 1/8" or 1/4" NPT 2 1/2" dial = 1/4" NPT Standard: psi/BAR (x 100 = kPa) 3-2-3% of span 1 1/2" & 2" ASME B40.1 Grade B 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 1/2"	ln.	1.83"	1.01"	0.89"	1.90"	1⁄8"	2.46"	1.61"
1 /2	mm	46	26	23	48	NPT	63	41
2"	ln.	2.25"	1.17"	1.00"	2.17"	¹⁄₅" or	2.81"	2.03"
2	mm	57	30	25	55	1⁄4"	71	52
2 1/2"	ln.	2.71"	1.40"	1.31"	2.71"	1⁄4"	3.46"	2.49"
Ζ /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

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.25 lbs (0.10 kg)	upon request
2"	0.40 lbs (0.18 kg)	upon request
2 1⁄2"	0.65 lbs (0.30 kg)	upon request

### 301L 4" ALL STAINLESS LOWER MOUNT

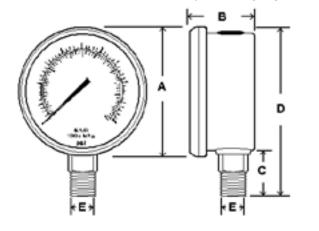


Heavy duty, all stainless steel gauge Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

#### SPECIFICATIONS

Dial	4" (100 mm)
Case	Stainless steel, glycerine filled (available dry)
Wetted Parts	316 stainless steel
Bezel	Stainless steel, fixed
Lens	Polycarbonate
Pointer	Black aluminum
Connection	Lower mount
	4" dial = ¼" or ½" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
Accuracy	2-1-2% of span ASME B40.1 Grade A
Ambient Temp	Glycerine Filled = 30° F to 160° F
	Dry = -30° F to 180° F

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



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



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Glass Lens
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Single Scale
- Max/Min Pointer, see page 122

\*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

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.

#### 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 0.5 psi 10 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		

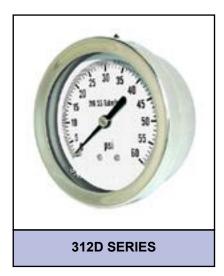
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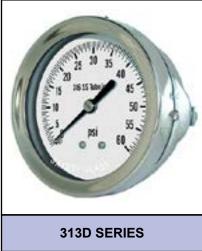


### **310 SERIES ALL STAINLESS**

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









#### **STANDARD DIAL CONFIGURATIONS FOR 310 SERIES**

Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg		0/60 psi	5 psi	0.5 psi		0/1000 psi	100 psi	10 psi
30/0/15 psi	10" hg/5 psi	1" hg/0.5 psi		0/100 psi	10 psi	1 psi		0/1500 psi	200 psi	10 psi
30/0/30 psi	10" hg/5 psi	1" hg/0.5 psi		0/160 psi	20 psi	2 psi		0/2000 psi	200 psi	20 psi
30/0/60 psi	10" hg/10psi	2" hg/1 psi		0/200 psi	20 psi	2 psi		0/3000 psi	500 psi	20 psi
30/0/100 psi	30" hg/10psi	2" hg/1 psi		0/300 psi	30 psi	2 psi		0/5000 psi	500 psi	50 psi
30/0/150 psi	30" hg/20psi	10" hg/2 psi		0/400 psi	50 psi	5 psi		0/6000 psi	500 psi	50 psi
30/0/300 psi	30" hg/50psi	10" hg/2 psi		0/600 psi	50 psi	5 psi		0/10,000 psi	1000 psi	100 psi
0/15 psi	2 psi	0.1 psi		0/800 psi	100 psi	10 psi		0/15,000 psi	3000 psi	100 psi
0/30 psi	3 psi	0.2 psi	NOTE: Because of continuing improvements, increments/specifications are subject to change							

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

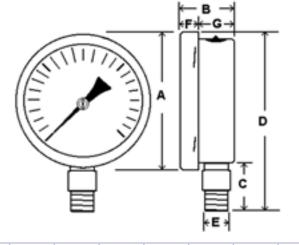


Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

#### **SPECIFICATIONS**

Dial	2 $\frac{1}{2}$ " (63 mm), 4" (100 mm) - See 4001 page 50 6" (150 mm) - See 6001 page 53 4 $\frac{1}{2}$ ", 8" and 10" available special order
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 mount
	2 ½" dial = ¼" 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	Е	F	G
2 1⁄2"	ln.	2.75"	1.30"	0.91"	3.50"	1/4"	0.51"	0.79"
Ζ/2	mm	70	33	23	89	NPT	13	20



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Plastic Lens
- Dual Scale
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.35 lbs (0.16 kg)	50



### 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

	Dial	2 ½" (63 mm), 4" (100 mm) 6" (150 mm) - See 6002 page 54
	Case	Stainless steel, dry yet fillable Welded case-to-stem connection
	Wetted Parts	316 stainless steel
	Bezel	Removable, stainless steel
	Lens	Laminated safety glass
5	Pointer	Adjustable, black aluminum
	Connection	Lower back mount
		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° F to 180° F
		Glycerine Filled = 30° F to 160° F



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

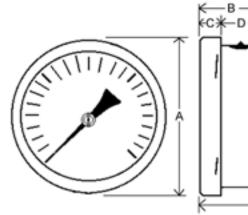
- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Plastic Lens
- Dual Scale
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.35 lbs (0.16 kg)	50
4"	1.10 lbs (0.50 kg)	8





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Dial	Unit	Α	В	С	D	E	F	G	
2 1⁄2"	ln.	2.71"	1.26"	0.41"	0.85"	1⁄4" NPT	2.47"	2.24"	
2 /2	mm	69	32	10	22	74 NPT	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	

G

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

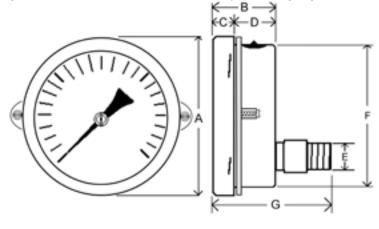


Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

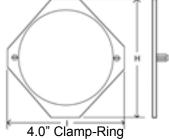
#### **SPECIFICATIONS**

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" dial = ¼" or ½" 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.











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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Plastic Lens
- Dual Scale
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.60 lbs (0.26 kg)	50
4"	1.20 lbs (0.54 kg)	8

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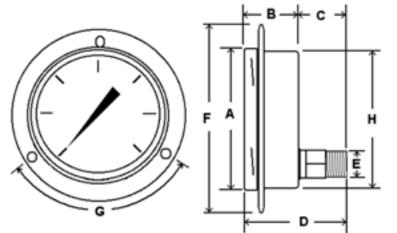
# 314D ALL STAINLESS STEEL FRONT FLANGE PANEL MOUNT

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

#### SPECIFICATIONS

	Dial	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
	Bezel	Removable, stainless steel
	Lens	Laminated safety glass
3	Pointer	Adjustable, black aluminum
	Connection	Lower 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° 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	Е	F	Н
2 1⁄2"	ln.	2.71"	1.23"	1.00"	2.23"	1⁄4"	3.45"	2.45"
	mm	69	31	25	57	NPT	88	62
4"	ln.	4.03"	1.97"	1.48"	3.45"	¹⁄₄" or	5.22"	3.86"
4	mm	102	50	38	88	1⁄2"	133	98
		GE	Dimensi	ons (Sc	rew Ho	les)		
Dial	Arc	Unit	Dista	Distance from ctr			e (oblo	ng)
2 1/2"	o 1/" 1.58"			0.1	18" x 0.2	25"		
2 ½" 120°		mm		40		4	4.5 x 6.5	5
<b>A</b> "	1000	ln.		2.25"			8" (rour	nd)

4.5 (round)



120°

4"



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Plastic Lens
- Dual Scale
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.60 lbs (0.26 kg)	50
4"	1.20 lbs (0.54 kg)	8

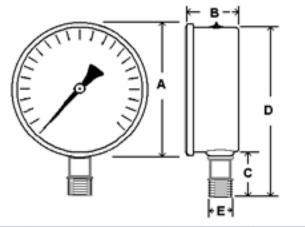
# S301L HEAVY DUTY 4"

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)
Case	Stainless steel, glycerine filled
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
Scale	Standard: single scale psi
Accuracy	1% of span ASME B40.1 Grade 1A
Ambient Temp	Glycerine Filled = 30° F to 160° F
-	Dry = -30° F to 180° 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
4	mm	103	49	37	135	1∕₂" 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 ps	i 1000 psi	100 psi	
0/15,000 ps	i 3,000 psi	100 psi	t



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 177
- Anti-Vibration Movement, see page 109
- Cleaned for Oxygen Service (dry only)
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

#### 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.



### 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



SEC-301LFW SERIES







#### STANDARD DIAL CONFIGURATIONS FOR SEC-300LFW SERIES

Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	5" hg	0.5" hg	0/100 psi	20 psi	2 psi	0/1000 psi	200 psi	10 psi
30/0/30 psi	10" hg/10psi	1" hg/1 psi	0/160 psi	20 psi	2 psi	0/2000 psi	400 psi	50 psi
30/0/150 psi	10" hg/30psi	1" hg/2 psi	0/200 psi	40 psi	5 psi	0/3000 psi	500 psi	50 psi
0/15 psi	3 psi	0.2 psi	0/300 psi	50 psi	5 psi	0/5000 psi	1000 psi	100 psi
0/30 psi	5 psi	0.5 psi	0/400 psi	100 psi	10 psi	0/10,000 psi	2000 psi	200 psi
0/60 psi	10 psi	1 psi	0/600 psi	100 psi	10 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

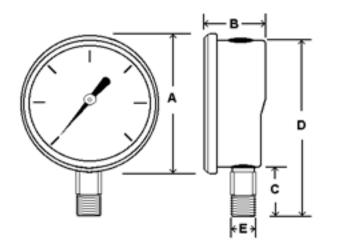


All stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

#### SPECIFICATIONS

Dial	2 ½" (63 mm)
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	Lower mount
	2 ½" dial = ¼" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
Accuracy	3-2-3% of span ASME B40.1 Grade B
Ambient Temp	Glycerine Filled = 30° F to 160° F
	Dry = -30° F to 180° F
Design meets or even	eds ASME RAN 100 pressure dauge stan

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



Dial	Unit	Α	В	С	D	Е
2 1⁄2"	ln.	2.80"	1.37"	0.93"	3.40"	1⁄4"
Z 72	mm	71	35	24	86	NPT



#### AVAILABLE OPTIONS\*

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Glass Lens
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.50 lbs (0.22 kg)	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 Case

Scale

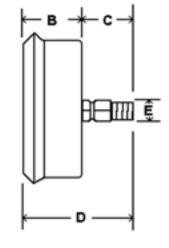
Accuracy

Ambient Temp

Wetted Parts Bezel Lens Pointer Connection 2  $\frac{1}{2}$ " (63 mm) Stainless steel, glycerine filled Welded case-to-stem connection 316 stainless steel Stainless steel, fixed Polycarbonate Black aluminum Center back mount 2  $\frac{1}{2}$ " dial =  $\frac{1}{4}$ " NPT Standard: psi/BAR (x 100 = kPa) 3-2-3% of span ASME B40.1 Grade B Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F

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





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



#### AVAILABLE OPTIONS\*

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Glass Lens
- Special Connection Size
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.45 lbs (0.22 kg)	50

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

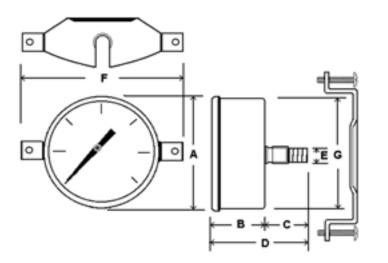


All stainless steel gauge with welded case-to-stem connection Stainless steel case and bezel, 316 stainless steel internals Glycerine filled for added durability in applications where vibration or pulsation is present

#### SPECIFICATIONS

Dial Case	2 <sup>1</sup> ⁄ <sub>2</sub> " (63 mm) Stainless steel, glycerine filled Welded case-to-stem connection
Wetted Parts Bezel	316 stainless steel Stainless steel, fixed
Lens Pointer Connection	Polycarbonate Black aluminum Contor back mount with u clamp
Scale	Center back mount with u-clamp 2 ½" dial = ¼" NPT Standard: psi/BAR (x 100 = kPa)
Accuracy Ambient Temp	3-2-3% of span ASME B40.1 Grade B Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F

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



Dial	Unit	Α	В	С	D	Е	F	G
2 1⁄2"	ln.	2.67"	1.17"	1.08"	2.19"	1/4"	3.84"	2.45"
2 /2	mm	68	30	28	56	NPT	98	62



#### AVAILABLE OPTIONS\*

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Glass Lens
- Special Connection Size
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.55 lbs (0.26 kg)	50



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 Case

Bezel

Lens

Scale

Accuracy

Ambient Temp

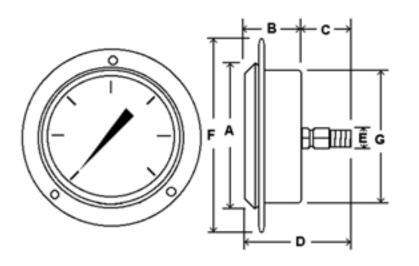
Pointer

Wetted Parts

Connection

2 <sup>1</sup>/<sub>2</sub>" (63 mm) Stainless steel, glycerine filled Welded case-to-stem connection 316 stainless steel Stainless steel, fixed Polycarbonate Black aluminum Center back mount with front flange 2 <sup>1</sup>/<sub>2</sub>" dial = <sup>1</sup>/<sub>4</sub>" NPT Standard: psi/BAR (x 100 = kPa) 3-2-3% of span ASME B40.1 Grade B Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F

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



Dial	Unit	Α	В	С	D	Е	F	G
2 1/3"	ln.	2.67"	1.17"	1.08"	2.19"	1⁄4"	3.46"	2.45"
2 /2	mm	68	30	28	56	NPT	88	62

For complete flange dimensions, see page 123.

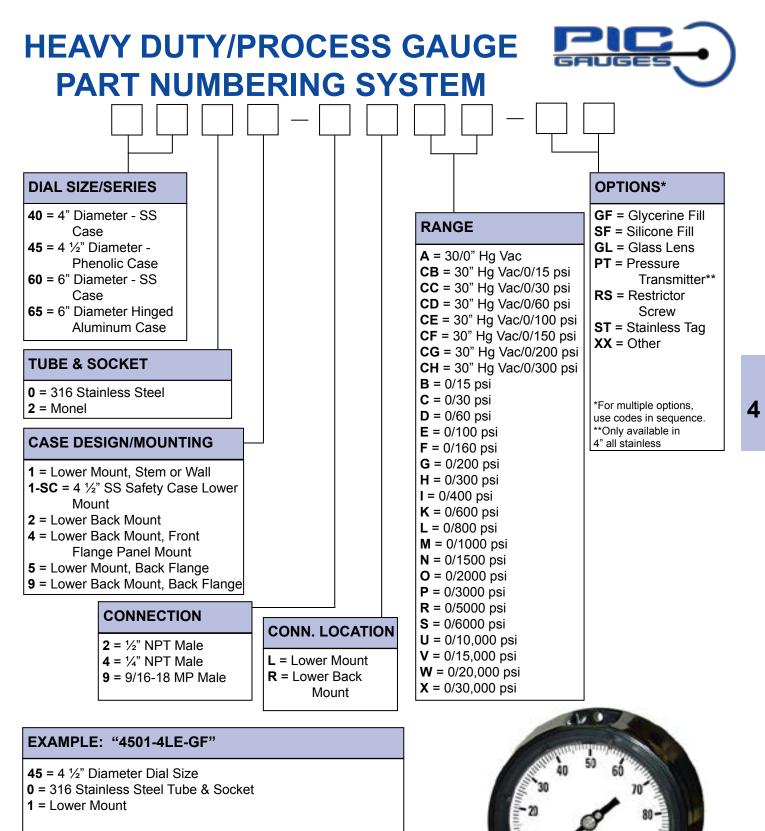


#### AVAILABLE OPTIONS\*

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Anti-Vibration Movement, see page 109
- Dry, Fillable Case
- Glass Lens
- Special Connection Size
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

Dial Size	Est. Unit Weight	Box Qty
2 1⁄2"	0.50 lbs (0.24 kg)	50



**4** = <sup>1</sup>/<sub>4</sub>" NPT male **L** = Lower Mount

**E** = 0/100 psi

GF = Glycerine Fill

NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

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### **4001 4" 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

#### **SPECIFICATIONS**

Dial Case

Scale

4

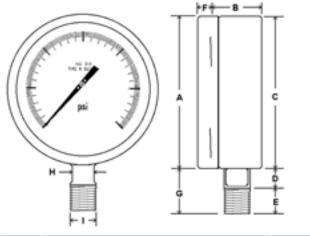
Accuracy

Ambient Temp

Wetted Parts **Movement** Bezel Lens Pointer Connection

4" (100 mm) Stainless steel, dry yet fillable Welded case-to-stem connection 316 stainless steel With overload/underload stops Removable, stainless steel Laminated safety glass Adjustable, black aluminum Lower mount 1/4" or 1/2" NPT Standard: single scale psi 1% of span ASME B40.1 Grade 1A 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	Е	F	G	н	I (=NPT)	
<b>4</b> "	ln.	4.02"	1.93"	3.87"	0.70"	0.74"	0.66"	1.38"	0.68"	1/" == 1/"	D
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 176
- High Pressure Connection 9/16" HPM - See 4001-9/16 page 51
- Special Connection Size
- Knife-edge pointer
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122
- 0.5% Accuracy Available

**Dial Range** 

0/2000 psi

0/3000 psi

0/5000 psi

0/6000 psi

0/10,000 psi

0/15,000 psi

0/20,000 psi

0/30.000 psi

\*Lead times/minimums may apply

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

Dial Size	Est. Unit Wt.	Box Qty
4"	1 lb/0 48 kg	15

Figure

Intervals

200 psi

500 psi

500 psi

500 psi

1000 psi

3000 psi

2000 psi

6000 psi

Graduation

Intervals

20 psi

20 psi

50 psi

50 psi

100 psi

100 psi

200 psi

200 psi

#### **STANDARD DIAL CONFIGURATIONS FOR 4001 SERIES**

Graduation

Intervals

0.5 psi

1 psi

2 psi

2 psi

2 psi

5 psi

5 psi

10 psi

10 psi

Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals
30/0"hg Vac	3" hg	0.2" hg	0/60 psi	5 psi
30/0/15 psi	5" hg/3 psi	0.5"hg/.2 psi	0/100 psi	10 psi
30/0/30 psi	10" hg/5psi	1" hg/.5 psi	0/160 psi	20 psi
30/0/60 psi	10" hg/5psi	1" hg/.5 psi	0/200 psi	20 psi
30/0/100 psi	30" hg/10psi	2" hg/1 psi	0/300 psi	30 psi
30/0/150 psi	30" hg/20psi	5" hg/2 psi	0/400 psi	50 psi
30/0/300 psi	30" hg/50psi	5" hg/2 psi	0/600 psi	50 psi
0/15 psi	1 psi	0.1 psi	0/1000 psi	100 psi
0/30 psi	3 psi	0.2 psi	0/1500 psi	200 psi

#### NOTE: Specifications are subject to change. Consult PIC Gauges for availability.

### 4001 9/16" HIGH PRESSURE CONNECTION

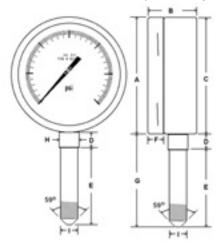


Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable 9/16" HPM connection, Ranges 10,000 psi, 15,000 psi, 20,000 psi, 30,000 psi

#### 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,
Lens	Laminated safety glass
Pointer	Adjustable, black aluminum
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° F to 180° F
-	Glycerine Filled = 30° F to 160° F

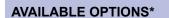
Design meets or exceeds ASME B40.100 pressure gauge standard.



Dial	Unit	Α	В	С	D	E	F	G	н	Thread
4"	In.	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.



- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Cleaned for Oxygen Service (dry only)
- Knife-edge pointer
- Protective Rubber Cover, see page 121
- With Gland/Collar
- Max/Min Pointer, see page 122
- 0.5% Accuracy Available

\*Lead times/minimums may apply

#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

	Dial Size	Est. Unit Wt.	Box Qty
	4"	1.20 lbs	15
-1		(0.54 kg)	



#### SOLD SEPARATELY



### 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



#### STANDARD DIAL CONFIGURATIONS FOR 6000 SERIES

Dial Range	Figure Intervals	Graduation Intervals	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	0/1500 psi	200 psi	10 psi
30/0/30 psi	10" hg/5 psi	1" hg/.5 psi	0/100 psi	10 psi	1 psi	0/2000 psi	200 psi	20 psi
30/0/60 psi	10" hg/5 psi	1" hg/.5 psi	0/160 psi	20 psi	2 psi	0/3000 psi	500 psi	20 psi
30/0/100 psi	30" hg/10psi	2" hg/1 psi	0/200 psi	20 psi	2 psi	0/5000 psi	500 psi	50 psi
30/0/150 psi	30" hg/20psi	5" hg/2 psi	0/300 psi	30 psi	2 psi	0/6000 psi	500 psi	50 psi
30/0/300 psi	30" hg/50psi	5" hg/2 psi	0/400 psi	50 psi	5 psi	0/10,000 psi	1000 psi	100 psi
0/15 psi	1 psi	0.1 psi	0/600 psi	50 psi	5 psi	0/15,000 psi	3000 psi	100 psi
0/30 psi	3 psi	0.2 psi	0/1000 psi	100 psi	10 psi			

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

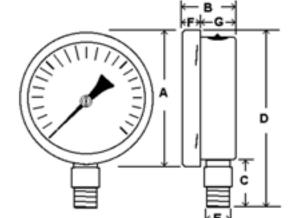
### 6001 6" ALL STAINLESS LOWER MOUNT



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

170 accuracy, wera	
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
Pointer	Micro 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° F to 180° F
	Glycerine Filled = 30° F to 160° F
Design meets or excee	ds ASME B40.100 pressure gauge standard.

1



Dial	Unit	Α	В	С	D	E	F	G
6"	ln.	6.75"	2.05"	1.50"	8.41"	1⁄4" or	0.73"	1.27"
0	mm	172	52	38	214	1⁄2" NPT	18	32



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Polycarbonate Lens

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
6"	2.15 lbs (0.98 kg)	10



### 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

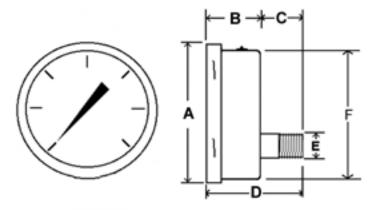
Dial

4

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
Pointer	Micro adjustable, black aluminum
Connection	Lower back mount
	¼" 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
Decision measta ar avea	ada ACME DAO 400 processos provincias

6" (150 mm)

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



Dia	Unit	Α	В	С	D	Е	F
6"	In.	6.76"	2.02"	1.35"	3.37"	1⁄4" or	6.24"
0	mm	172	52	34	86	1⁄2"	158



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Polycarbonate Lens
- <sup>1</sup>/<sub>2</sub>" NPT or Custom Connections

\*Lead times/minimums may apply

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

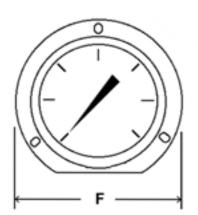
#### **SPECIFICATIONS**

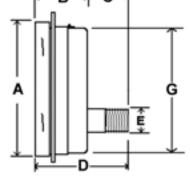
Dial

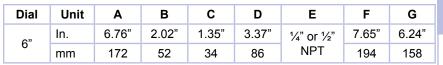
Case	Stainless steel, dry yet fillable
	Welded case-to-stem connection
Wetted Parts	316 stainless steel
Movement	With overload/underload stops
Bezel	Removable, stainless steel
Lens	Laminated safety glass
Pointer	Micro adjustable, black aluminum
Connection	Lower back mount with front flange
	1⁄4" NPT
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

6" (150 mm)

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







For complete flange dimensions, see page 123.



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

Certificate of Accuracy, NIST traceable

4

- Custom Dial
- Liquid Fill Options, see page 176
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Polycarbonate Lens
- ½" NPT or Custom Connections

\*Lead times/minimums may apply

G	APPROXIN BOX QUAN		IG WEIGHTS/
.24"	Dial Size	Est.	Box Qty
158		Unit Wt.	2
	6"	2.30 lbs (1.06 kg)	5



### 6009 6" ALL STAINLESS BACK FLANGE

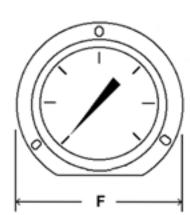
Heavy duty, all stainless steel gauge with removable bezel, adjustable pointer 1% accuracy, welded case-to-stem connection, dry yet fillable

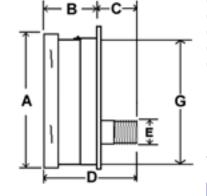
#### **SPECIFICATIONS**

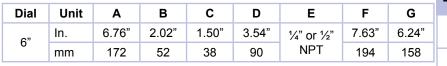
Δ

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
Pointer	Micro adjustable, black aluminum
Connection	Lower back mount with back flange
_	1/4" NPT standard
	1/2" NPT available (limited ranges)
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.







For complete flange dimensions, see page 123.



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Special Connection Size
- Cleaned for Oxygen Service (dry only)
- Polycarbonate Lens

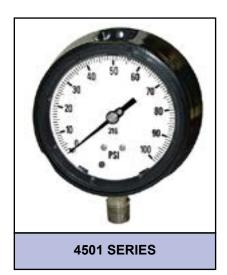
\*Lead times/minimums may apply

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

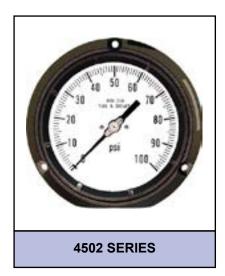
### **4500 SERIES PROCESS GAUGE**

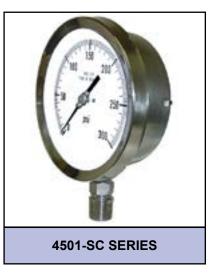


Solid front/blow-out back safety case, liquid fillable 316 stainless steel internals









#### STANDARD DIAL CONFIGURATIONS FOR 4502/4504/6504/4501-SC

Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals	
30/0"hg Vac	5" hg	0.2" hg	0/60 psi	10 psi	0.5 psi	0/1500 psi	250 psi	10 psi	
30/0/30 psi	10" hg/5psi	1" hg/.5 psi	0/100 psi	10 psi	1 psi	0/2000 psi	200 psi	20 psi	
30/0/60 psi	10" hg/10psi	2" hg/1 psi	0/160 psi	20 psi	1 psi	0/3000 psi	500 psi	20 psi	
30/0/100 psi	10" hg/10psi	2" hg/1 psi	0/200 psi	20 psi	2 psi	0/5000 psi	500 psi	50 psi	
30/0/150 psi	30" hg/30psi	2" hg/2 psi	0/300 psi	50 psi	2 psi	0/6000 psi	500 psi	50 psi	
30/0/300 psi	30" hg/50psi	5" hg/5 psi	0/400 psi	50 psi	5 psi	0/10,000 psi	1000 psi	100 psi	
0/15 psi	3 psi	0.2 psi	0/600 psi	100 psi	5 psi	0/15,000 psi	2500 psi	100 psi	
0/30 psi	5 psi	0.2 psi	0/1000 psi	100 psi	10 psi	*For 4501 series, see page 58.			

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.



### **4501 PROCESS GAUGE** LOWER MOUNT

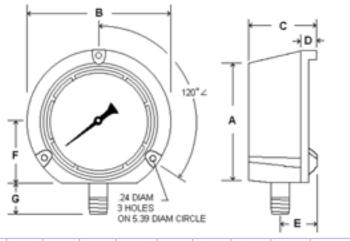
#### Solid front/blow-out back safety case, liquid fillable 316 stainless steel internals

#### **SPECIFICATIONS**

Δ

Dial Case	4 ½" (114 mm) Phenolic case with solid front/blow out back Dry, field liquid fillable - no kit required
Wetted Parts	316 stainless steel*
Movement	With overload/underload stops
Bezel	Removable, phenolic
Lens	Polycarbonate
Pointer	Micro adjustable, black aluminum
Connection	Lower mount with back flange ¼" or ½" NPT
Scale	Standard: single scale psi
Accuracy	0.5% of span ASME B40.1 Grade 2A
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	Е	F	G	NPT
4 ½"	In.	5.07"	5.91"	3.03"	0.91"	1.38"	2.56"	1.38"	1⁄4" or 1⁄2"
4 72	mm	129	150	77	23	35	65	35	74 OF 72



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Special Connection Size
- Laminated Safety Glass Lens
- Cleaned for Oxygen Service (dry only)
- Knife-edge Pointer
- Max/Min Pointer, see page 122
- Monel Internals
- 9/16" High Pressure Connection
- \*Lead times/minimums may apply

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

Dial Size	Est. Unit Wt.	Box Qty			
4 1⁄2"	1.95 lbs (0.88 kg)	8			

			•							
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals
30/0"hg Vac	3" hg	0.2" hg		0/30 psi	3 psi	0.2 psi		0/1000 psi	100 psi	10 psi
30/0/15 psi	5" hg/3psi	0.5" hg/0.2 psi		0/60 psi	5 psi	0.5 psi	1	0/1500 psi	200 psi	10 psi
30/0/30 psi	10" hg/5psi	1" hg/0.5 psi		0/100 psi	10 psi	1 psi	1	0/2000 psi	200 psi	20 psi
30/0/60 psi	10" hg/5psi	1" hg/0.5 psi		0/160 psi	20 psi	2 psi	1	0/3000 psi	500 psi	20 psi
30/0/100 psi	30" hg/10psi	2" hg/1 psi		0/200 psi	20 psi	2 psi	]	0/5000 psi	500 psi	50 psi
30/0/150 psi	30" hg/20psi	5" hg/2 psi		0/300 psi	30 psi	2 psi	]	0/6000 psi	500 psi	50 psi
30/0/200 psi	30" hg/20 psi	5" hg/2 psi		0/400 psi	50 psi	5 psi	]	0/10,000 psi	1000 psi	100 psi
30/0/300 psi	30" hg/50psi	5" hg/2 psi		0/600 psi	50 psi	5 psi	]	0/15,000 psi	3000 psi	100 psi
0/15 psi	1 psi	0.1 psi		0/800 psi	100 psi	10 psi	]	0/20,000 psi	2000 psi	200 psi

STANDARD DIAL CONFIGURATIONS FOR 4501

NOTE: Because of continuing improvements, increments and specifications are subject to change. Stock ranges vary. Consult PIC Gauges for availability. 58 Process Gauges

A Division of Engineered Specialty Products, Inc.

### 4502 PROCESS GAUGE LOWER BACK MOUNT



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

#### SPECIFICATIONS

Dial
Case
Wetted Parts
Welleu I allo
Movement
Bezel
Lens

Connection

Accuracy

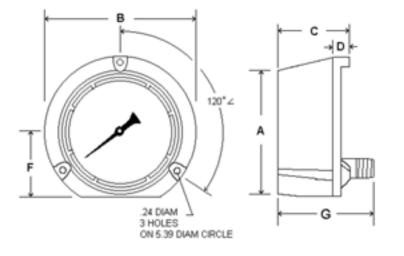
**Ambient Temp** 

Pointer

Scale

4 ½" (114 mm) Phenolic with solid front/blow out back Dry, field liquid fillable - no kit required 316 stainless steel With overload/underload stops Removable, phenolic Polycarbonate Micro adjustable, black aluminum Lower back mount with holes for wall mounting ¼" or ½" NPT Standard: single scale psi 0.5% of span ASME B40.1 Grade 2A Dry = -30° F to 180° F Glycerine Filled = 30° F to 160° F

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





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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Special Connection Size
- Laminated Safety Glass Lens
- Cleaned for Oxygen Service (dry only)
- Knife-edge Pointer
- Max/Min Pointer, see page 122
- Panel Mount Kit

\*Lead times/minimums may apply

Dial	Unit	Α	В	С	D	F	G	NPT	Dial Size	Est. Unit Wt.	Box Qty
4 1⁄2"	ln.	5.08"	5.84"	3.44"	1.10"	2.54"	4.27"	1⁄4" or	4 1⁄2"	2.34 lbs/	18
4 /2	mm	129	148	87	28	65	108	1⁄2"	(1.06 kg)		



### 4504, 6504 PROCESS GAUGE PANEL MOUNT

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

#### **SPECIFICATIONS**

Accuracy 4 Ambient Temp

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
Lens	Plastic lens for 4 <sup>1</sup> / <sub>2</sub> "
	Glass lens for 6"
Pointer	Micro adjustable, black aluminum
Connection	Lower back mount
	1⁄4" or 1⁄2" NPT
Scale	Standard: single scale psi

4.1/" (44.4 mmm) C" (4E0 mmm)

0.5% of span ASME B40.1 Grade 2A



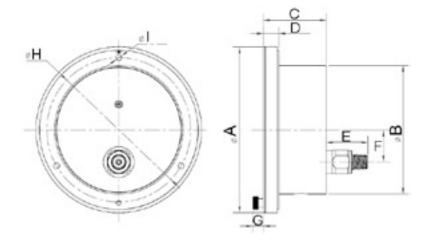
#### **AVAILABLE OPTIONS\***

- 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 122

\*Lead times/minimums may apply

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

Dial Size	Est. Unit Wt.	Box Qty
4 1⁄2"	2.36 lbs/ (1.07 kg)	18
6"	3.10 lbs/ (1.40 kg)	upon request



 $Dry = -30^{\circ} F to 180^{\circ} F$ Design meets or exceeds ASME B40.100 pressure gauge standard.

Dial	Unit	Α	В	С	D	Е	F	G	н	I
4 1/2"	ln.	6.16"	4.77"	2.35"	0.58"	1.70"	1.20"	0.39"	5.35"	0.22"
4 72	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"
U	mm	192	121	66.5	16	35.6	30.4	8.5	178	4.7

### 4501-SC ALL STAINLESS PROCESS GAUGE

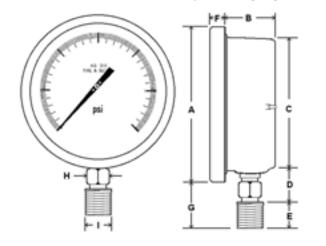


### Solid front stainless steel safety case, liquid fillable 316 stainless steel internals

#### SPECIFICATIONS

Dial Case	4 <sup>1</sup> / <sub>2</sub> " (114 mm) 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
Pointer	Micro adjustable, black aluminum
Connection	Lower mount
	1⁄4" or 1⁄2" NPT
Scale	Standard: single scale psi
Accuracy	0.5% of span ASME B40.1 Grade 2A
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.



Di	al	Unit	Α	в	С	D	F	G	н	I
4 1	17.									1⁄4" or 1⁄2"
4 7	/2	mm	129	148	87	28	65	108	19	NPT



### 4

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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Special Connection Size
- Laminated Safety Glass Lens
- Cleaned for Oxygen Service (dry only)
- Knife-edge Pointer
- Max/Min Pointer, see page 122
- 2 <sup>1</sup>/<sub>2</sub>" Dial Option

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
4 1⁄2"	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
Bezel	Removable, stainless steel
Lens	Laminated safety glass
Pointer	Adjustable, 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

Δ

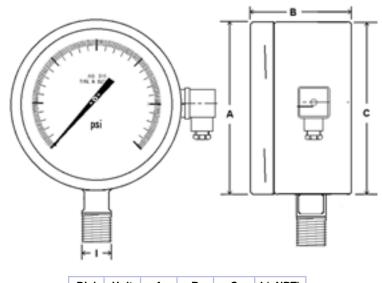
System	2 Wire
Supply	24 VDC
Output	4-20 mA
Accuracy	0.5% of FS
Electric Wiring	DIN Connector
Response Time	50 mSec (Typical)
Sensing Element	AISI 316L



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Knife-edge pointer
- Max/Min Pointer, see page 122
- Electrical Contact Version

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



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.

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
4"	2.53 lb/1.15 kg	upon request

# 601L FORGED BRASS LIQUID FILLED LOWER MOUNT

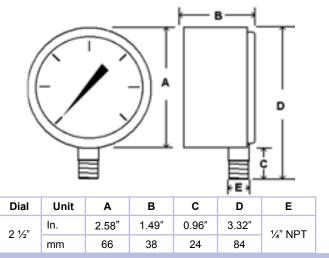
#### Heavy duty forged brass case and socket

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

#### **SPECIFICATIONS**

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
	¼" NPT
Scale	Standard: single scale psi
Accuracy	2-1-2% of span ASME B40.1 Grade A
Ambient Temp	Glycerine Filled = 30° F to 160° F
	Dry = -30° F to 180° F

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



#### STANDARD DIAL CONFIGURATIONS

						1
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	L
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	N S
0/160 psi	20 psi	2 psi	0/10,000 psi	1000 psi	100 psi	С
0/200 psi	20 psi	2 psi				



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Liquid Fill Options, see page 176
- Special Connection Size
- Dry, fillable case
- Protective Rubber Cover, see page 121
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

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

on S	Dial Size	Est. Unit Weight	Box Qty
	2 1⁄2"	0.75 lbs (0.34 kg)	50

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

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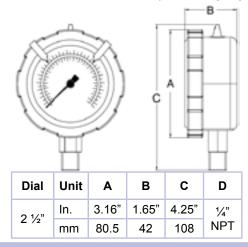


Plastic case/glycerine filled for durability in applications where vibration/pulsation is present Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

#### SPECIFICATIONS

Dial	2 ½" (63 mm)
Case	Polypropylene, glycerine filled
Wetted Parts	Copper alloy
Bezel	Removable, polypropylene with adjustable
	Reference clips
Lens	Polycarbonate
Pointer	Adjustable, black aluminum
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
-	$D_{\rm rv} = 20^{\circ}  {\rm E}$ to $100^{\circ}  {\rm E}$

Dry = -30° F to 180° F Design meets or exceeds ASME B40.100 pressure gauge standard.



#### 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

NOTE: Because of continuing improvements, specifications are subject to change. 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 176
- Special Connection Size
- Alternate Lens Material
- Cleaned for Oxygen Service (dry only)
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.55 lb (0.26 kg)	upon request

For part numbering system, see page 4.

## **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**

SERIES TYPE

CONTRACTOR

**CONNECTION SIZE** 

RANGE

**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

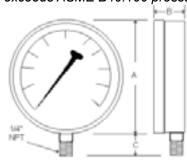
**B** = 0/15 psi C = 0/30 psi **D** = 0/60 psi E = 0/100 psi F = 0/160 psi G = 0/200 psi

H = 0/300 psi

**J** = 0/500 psi

4L = ¼" NPT

Dial	4 ½" (114 mm)
Case	Stainless steel, dry non-fillable
Wetted Parts	Copper alloy
Bezel	Removable, stainless steel
Lens	Plastic
Pointer	Adjustable, black aluminum
	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 excee	ds 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 122

PART NUMBERING SYSTEM	Dial	Unit	Α	В	С	
	4 ½"	In.	4.9"	1.17"	.97"	
	4 /2	mm	124	30	25	
						ˈ*Le

ead times/minimums may apply

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

Dial Size	Est. Unit Wt.	Box Qty
4 ½"	0.75 lb/(0.36kg)	upon request

#### 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

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.

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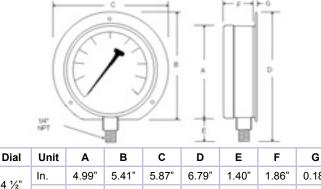
### 115D SERIES INDUSTRIAL GAUGE

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
Lens	Plastic for 4 1/2" & 6"
	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.



4 ½"	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 72	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	Fo
0/30 psi	5 psi	0.5 psi	0/1000 psi	100 psi	10 psi	Fo



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

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Dual Scale psi/BAR
- Glass Lens 4 ½", 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 1⁄2"	5.55 lb/(2.52kg)	upon request

Dial Size	Standard Part Numbers
4 1⁄2"	115D-454(RANGE CODE)
6"	115D-604(RANGE CODE)
8 1⁄2"	115D-854(RANGE CODE)

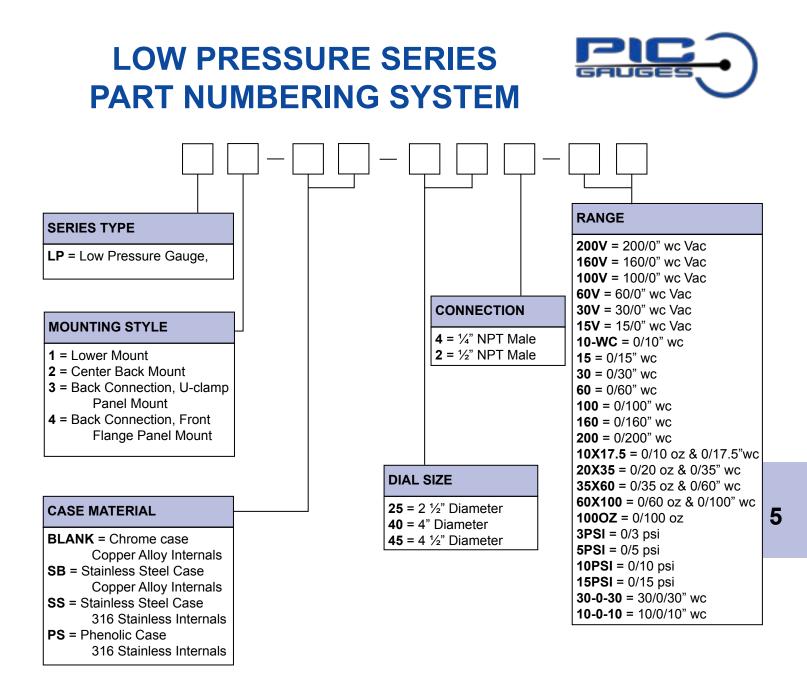
For range codes, see p. 4.

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.

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EXAMPLE: "LP1-SB-254-100"
LP = Low Pressure Gauge 1 = Lower Mount
SB = Stainless Steel Case, Copper Alloy Internals
<b>25</b> = 2 <sup>1</sup> ⁄ <sub>2</sub> " Diameter <b>4</b> = <sup>1</sup> ⁄ <sub>4</sub> " NPT Male
<b>100</b> = 0/100" wc



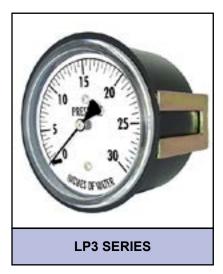
NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability. A Division of Engineered Specialty Products, Inc.



### **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









		STAN	JAH	RD DIAL CO	NFIGURATI	ONS FOR I
Dial Range	Figure Intervals	Graduation Intervals		Dial Range	Figure Intervals	Graduation Intervals
200/0"wc Vac	40" wc	4" wc		0/15" wc	3" wc	0.2" wc
160/0"wc Vac	20" wc	5" wc		0/30" wc	5" wc	0.5" wc
100/0"wc Vac	20" wc	2" wc		0/20 oz &	5 oz/5" wc	0.5 oz/0.5"
60/0"wc Vac	10" wc	1" wc		0/35" wc		WC
30/0"wc Vac	5" wc	0.5" wc		0/35 oz & 0/60" wc	5 oz/10" wc	1 oz/1" wc
15/0"wc Vac	3" wc	0.2" wc		0/60" wc	10" wc	1" wc
30/0/30" wc	10" wc	1" wc		0/60 oz &	10 oz/10" wc	1 oz/2" wc
5/0/15 wc	1" wc	0.25" wc		0/00 02 & 0/100" wc	10 02/10 WC	102/2 WC
0/10" wc	1" wc	0.1" wc		0/100 oz	20 oz	2 oz

### STANDARD DIAL CONFIGURATIONS FOR LP SERIES

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

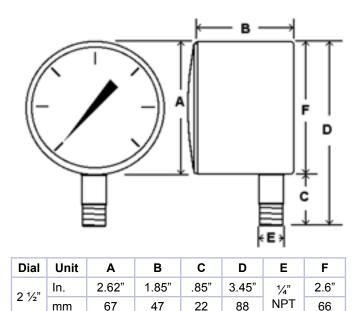


Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

#### SPECIFICATIONS

Dial Case Wetted Parts Lens Pointer	2 ½" (63 mm) Chrome plated steel, dry non-fillable Copper alloy Plastic, removable twist lock Adjustable, black aluminum
	Adjustment screw at rear of case
Connection	Lower mount ¼" NPT
Scale	Standard: single scale inches of water column or psi
Accuracy Ambient Temp	3-2-3% of span, ASME B40.1 Grade B -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 121

5

Dual Scale

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.50 lbs (0.24 kg)	100



### LP2 LOW PRESSURE CENTER BACK MOUNT

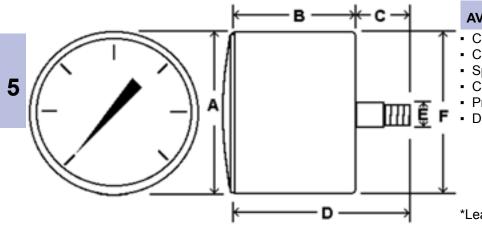
Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

#### 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
Connection	Center back mount
	1⁄4" NPT
Scale	Standard: single scale inches of water column
	or psi
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
0.1/1	ln.	2.60"	1.92"	0.84"	2.75"	1/4"	2.60"
2 1⁄2"	mm	66	49	22	71	NPT	66

**AVAILABLE OPTIONS\*** 

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 121
- Dual Scale

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.50 lbs	75
	(0.24 kg)	

## LP3 LOW PRESSURE U-CLAMP PANEL MOUNT

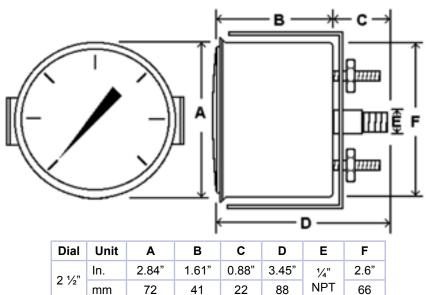


Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

#### SPECIFICATIONS

Dial Case Wetted Parts Lens Pointer	2 ½" (63 mm) Chrome plated steel, dry non-fillable Copper alloy Plastic, removable twist lock Adjustable, black aluminum
	Adjustment screw at rear of case
Connection	Center back mount with u-clamp <sup>1</sup> ⁄ <sub>4</sub> " NPT
Scale	Standard: single scale inches of water column or psi
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
- Dual Scale

5

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.50 lbs (0.24 kg)	upon request

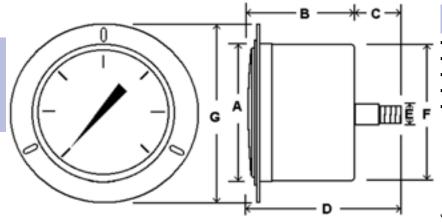


Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

#### 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
Connection	Center back mount with front flange
Scale	Standard: single scale inches of water column or psi
Accuracy Ambient Temp	3-2-3% of span ASME B40.1 Grade B -30° F to 180° F

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



								G
2 ½"	ln.	2.71"	1.81"	0.92"	2.72"	1⁄4"	2.60"	3.44"
2 /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

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.55 lbs (0.26 kg)	upon 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**

Part Number	TEST KIT-LP
Dial	2 ½" (63 mm)
Case	Black painted steel, dry non-fillable
Wetted Parts	Copper alloy
Range	0/20 oz X 0/35" wc*
Lens	Plastic, removable twist lock
Pointer	Adjustable, black aluminum
	Adjustment screw at rear of case
Connection	Gauge = Copper alloy hose barb
	Hose = Flexible rubber adapter fits multiple pipe
	sizes from ¼" to ⁵⁄₃" OD
Scale	Standard: dual scale inches of water column
-	and oz/in <sup>2</sup>
Accuracy	2% of span ASME B40.1 Grade B
Ambient Temp	-30° F to 180° F
Hose Tube	3 feet (91 cm) rubber

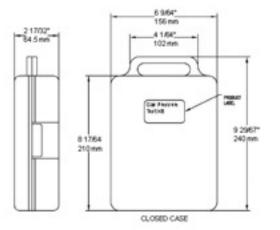


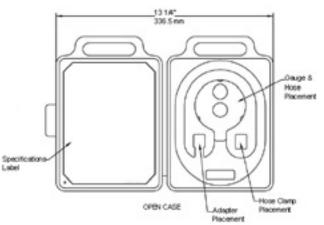
### **AVAILABLE OPTIONS\***

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

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

For gauge dimensions, see page 69.





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\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	1.50 lbs (0.68 kg)	upon request

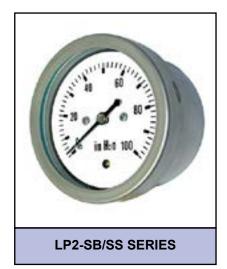


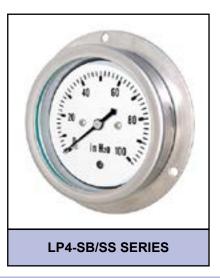
### **LP-SB/SS SERIES** LOW PRESSURE GAUGE

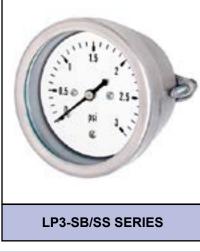
Capsule type pressure gauge for accurate measurement of low pressures Stainless steel case gauges with copper alloy or 316 stainless internals











Dial Range	Figure Intervals	Graduation Intervals	Dial Range	Figure Intervals	Graduation Intervals
200/0"wc Vac	50" wc	5" wc	0/15" wc	3" wc	0.2" wc
100/0"wc Vac	20" wc	2" wc	0/30" wc	5" wc	0.5" wc

0/10 oz &

0/17.5" wc

0/20 oz &

0/35" wc

0/35 oz &

0/60" wc

0/60" wc

STANDARD DIAL CONFIGURATIONS FOR LP-SB/SS SERIES

2.5 oz/2.5"

wc

5 oz/5" wc

5 oz/10" wc

10" wc

0.25 oz/0.5"

wc

0.5 oz/1" wc

1 oz/2" 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

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.

1" wc

0.5" wc

1" wc

0.5" wc

0.5" wc

0.2" wc

10" wc

5" wc

10" wc

5" wc

5" wc

2" wc

60/0"wc Vac

30/0"wc Vac

30/0/30" wc

15/0/15 wc

10/0/10 wc

0/10" wc

# LP1-SB LOW PRESSURE STAINLESS STEEL CASE

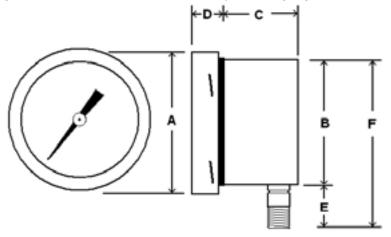


Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to copper alloy

### 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"
Scale	Standard: single scale inches of water column
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.





### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 121

5

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.55 lbs (0.26 kg)	upon request
4"	0.95 lbs (0.44 kg)	upon request

	Dial	Unit	Α	В	С	D	Conn.	Е	F
2	1⁄2"	ln.	2.95"	2.55"	1.23"	0.58"	¼" NPT	1.00"	3.55"
2	/2	mm	75	65	31	15		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 NPT	36	135



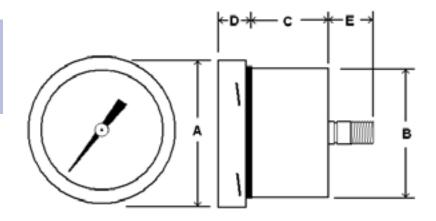
# LP2-SB LOW PRESSURE STAINLESS STEEL CASE

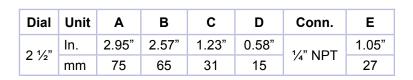
Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to Copper alloy

#### SPECIFICATIONS

Dial	2 ½" (63 mm)
Case	Stainless steel, dry non-fillable
Wetted Parts	Copper Alloy
Bezel	Removable, stainless steel
Lens	Heavy duty glass
Pointer	Adjustable, black aluminum
	Adjustment screw on dial face
Connection	Center back mount
	1⁄4" NPTI
Scale	Standard: single scale inches of water column
	or psi
Accuracy	2-1-2% of span 2 1/2" ASME B40.1 Grade A
Ambient Temp	-30° F to 180° F
Decima machine an avera	a da AONAE DAO 400 mua actura matema atamatana

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







### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 121
- Dual Scale

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.60 lbs (0.28 kg)	upon request

# LP3-SB LOW PRESSURE STAINLESS STEEL CASE

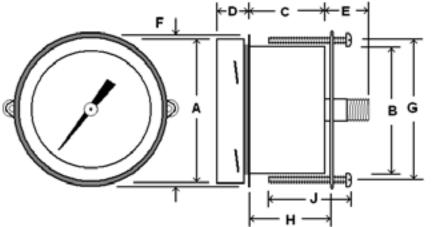


Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to Copper alloy

### SPECIFICATIONS

Dial	2 ½" (63 mm)
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	Center back mount with u-clamp
Scale	Standard: single scale inches of water column or psi
Accuracy	2-1-2% of span on 2 ½" 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
	2 1⁄2"	ln.	2.95"	2.56"	1.33"	0.55"	1⁄4" NPT	1.10"
		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

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.65 lbs (0.30 kg)	upon request



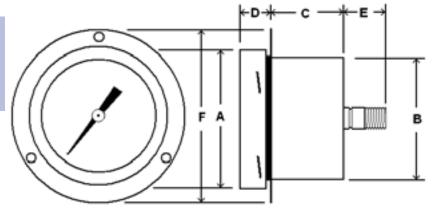
# LP4-SB LOW PRESSURE STAINLESS STEEL CASE

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)				
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	Center back mount with front flange				
Scale	Standard: single scale inches of water column or psi				
Accuracy	2-1-2% of span 2 1/2" ASME B40.1 Grade A				
Ambient Temp	-30° F to 180° F				
<b>-</b> · · ·					

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



С

1.23"

31

D

0.58"

15

Conn.

1⁄4" NPT

Е

1.05"

27

F

3.61"

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 1⁄2"	0.65 lbs (0.30 kg)	upon request

Dial

2 1⁄2"

Unit

ln.

mm

Α

2.95"

75

В

2.57"

65

# LP1-SS LOW PRESSURE ALL STAINLESS

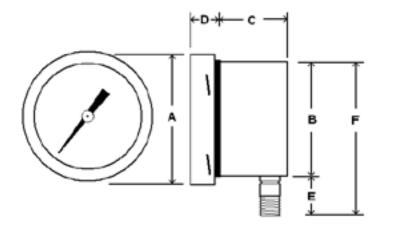


Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

### SPECIFICATIONS

Dial	2 ½" (63 mm), 4" (100 mm)
Case	Stainless steel, dry non-fillable
Wetted Parts	316 stainless steel
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" dial
	1/2" NPT for 4"
Scale	Standard: single scale inches of water column
	or psi
Accuracy	2-1-2% of span 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 1⁄2"	ln.	2.95"	2.55"	1.23"	0.58"	1⁄4" NPT	1.00"	3.55"
Z 72	mm							90
4"	ln.	4.38"	3.87"	1.27"	0.64"	¼" NPT	1.42"	5.30"
	mm	111	99	32.3	17	74 INP I	36	135



### **AVAILABLE OPTIONS\***

Certificate of Accuracy, NIST Traceable

5

- Custom Dial
- Special Connection Size
- Other Lens Material
- Cleaned for Oxygen Service
- Protective Rubber Cover, see page 79
- Dual Scale

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.55 lbs (0.26 kg)	upon request
4"	0.95 lbs (0.44 kg)	upon request



# LP2-SS LOW PRESSURE ALL STAINLESS

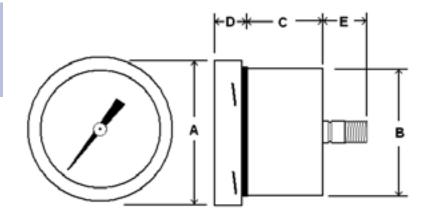
Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

### **SPECIFICATIONS**

5

Dial Case Wetted Parts Bezel Lens Pointer	2 ½" (63 mm) Stainless steel, dry non-fillable 316 stainless steel Removable, stainless steel Heavy duty glass Adjustable, black aluminum
Connection	Adjustment screw on dial face Center back mount ¼" NPT
Scale	Standard: single scale inches of water column or psi
Accuracy Ambient Temp	2-1-2% of span 2 ½" ASME B40.1 Grade A -30° F to 180° F
Donian monto or ovono	de ASME PAO 100 proceure aquae standard

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



Dial	Unit	Α	В	С	D	Conn.	Е
2 1⁄2"	ln.			1.23"	0.58"	1⁄4" NPT	1.05"
	mm	75	65	31	15	74 NP 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 121
- Dual Scale

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.60 lbs (0.28 kg)	upon request

# LP3-SS LOW PRESSURE ALL STAINLESS

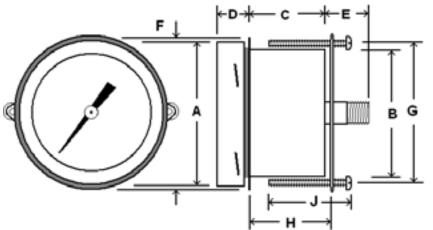


Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

### SPECIFICATIONS

Dial Case	2 ½" (63 mm) 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
Scale	Standard: single scale inches of water column or psi
Accuracy	2-1-2% of span on 2 ½" ASME B40.1 Grade A
Ambient Temp	-30° F to 180° F
Design mosts or even	ada ASME P40 100 proceura aquas standard

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



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

Dial	Unit	F	G	Н	J
2 1/2"	ln.	3.22"	2.83"	1.46"	1.46"
Z /2	mm	82	72	37	37



5

### **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

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.65 lbs (0.30 kg)	upon request



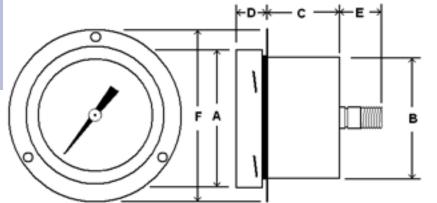
# LP4-SS LOW PRESSURE STAINLESS STEEL CASE

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 Case Wetted Parts Bezel Lens	2 ½" (63 mm) Stainless steel, dry non-fillable 316 stainless steel Removable, stainless steel Heavy duty glass
Pointer	Adjustable, black aluminum
	Adjustment screw on dial face
Connection	Center back mount with front flange ¼" NPT
Scale	Standard: single scale inches of water column or psi
Accuracy	2-1-2% of span 2 ½" ASME B40.1 Grade A
Ambient Temp	-30° F to 180° F
Design meets or exces	ds ASME BAO 100 pressure gauge standard

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



С

1.23"

31

D

0.58"

15

Conn.

1⁄4" NPT



### **AVAILABLE OPTIONS\***

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

F

3.61"

92

Е

1.05"

27

\*Lead times/minimums may apply

### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.65 lbs (0.30 kg)	upon request

5

Unit

In.

mm

Α

2.95"

75

В

2.57"

65

Dial

2 1/2"

# LP1-PS LOW PRESSURE PHENOLIC CASE

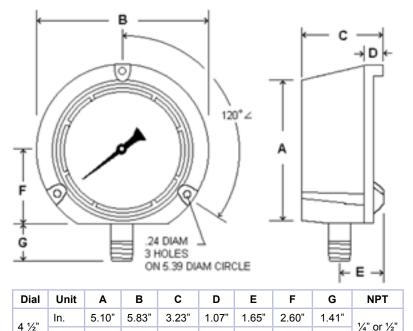


Capsule type pressure gauge for accurate measurement of low pressures Suitable for air, water, oil, gas or any other media not corrosive to stainless steel

### 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
	or psi
Accuracy	2-1-2% of span ASME B40.1 Grade A
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
- 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 1⁄2"	2.10 lbs (0.96 kg)	upon request

#### STANDARD DIAL CONFIGURATIONS FOR LP1-PS SERIES

36

Dial Range	Figure Intervals	Graduation Intervals
200/0"wc Vac	20" wc	2" wc
100/0"wc Vac	10" wc	1" wc
30/0"wc Vac	5" wc	0.5" wc

130

148

82

27

42

- . . -

66

mm

on s	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

Because of continuing improvements, increments and specifications are subject to change without notice. Consult PIC Gauges for availability.

5



# **DIGITAL PRESSURE GAUGE**

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

### SPECIFICATIONS

Dial	3" (76 mm)
Case	Black aluminum
Display	4 digits standard
Wetted Parts	304L & 316L stainless steel
Ranges	Standard ranges from 30" hg vac to 5,000 psi
Connection	Lower mount
	1⁄4" NPT for 3"
Measurement Units	psi, BAR, MPa
Accuracy	0.25% of span on 3" ASME B40.1 Grade 3A
Ambient Temp	14° F to 140° F
Power Supply	9 volt battery
Functions	Zero reset
	Backlight
	Peak/Hold



### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST Traceable
- Protective Rubber Cover, see page 121
- Special Connection Size

\*Lead times/minimums may apply

### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Weight	Box Qty
3"	1.10 lbs (0.50 kg)	upon request

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		

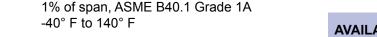
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# **BULK-HD SERIES**

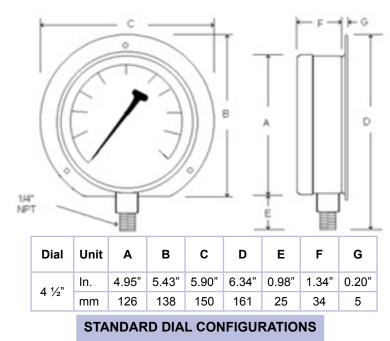


### Heavy duty 4 <sup>1</sup>/<sub>2</sub>" gauge designed for the dry bulk tanker market With anti-vibration movement for enhanced repeatability and durability

SPECIFICATIONS	
Dial	4 ½" (113 mm)
Case	Black steel, epoxy coated with Removable back flange
	Dry, non-fillable
Wetted Parts	Copper alloy
Movement	Heavy duty stainless steel
	Anti-vibration
Ranges	Standard: 0/30 psi, 30" Hg Vac/0/30 psi
Lens	Plastic
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	-40° F to 140° F



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



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

5

Other Lens Material

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
4 1⁄2"	1.10 lbs (0.50 kg)	upon request



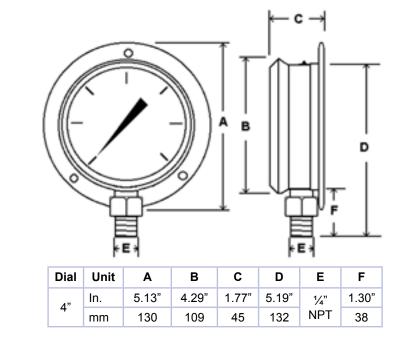
# S215L BACK FLANGE

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**

4" (100 mm) Stainless steel with removable back flange Glycerine filled
Copper alloy
Standard: 0/30 psi
Stainless steel, fixed
Plastic
Black aluminum
Lower mount ¼" NPT
Standard: single scale psi
1% of span, ASME B40.1 Grade 1A
Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F

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



### STANDARD DIAL CONFIGURATIONS

Part Number	Dial	Figure	Graduation
	Range	Intervals	Intervals
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

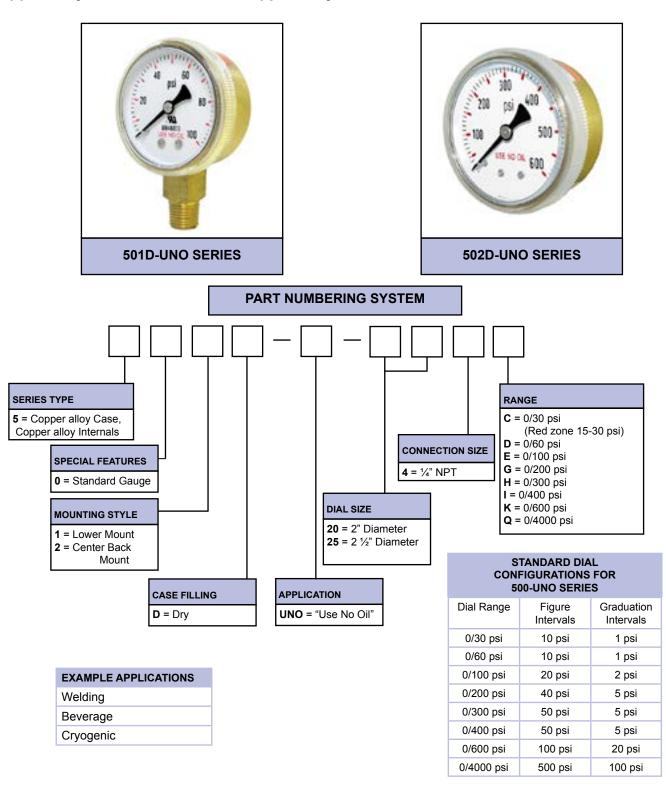
\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
4"	1.65 lbs (0.74 kg)	30

# **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



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.

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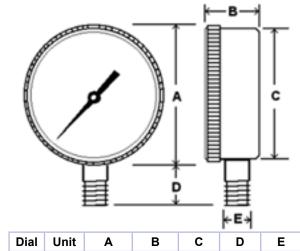


### **501D-UNO SERIES**

### "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)	
Case	Highly polished copper alloy, dry non-fillable	
Wetted Parts	Copper alloy	
Bezel	Removable lens	
Lens	Plastic, twist on	
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	-4° F to 140° F	
Design meets or exceeds ASME B40.100 pressure gauge standard.		



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



### **AVAILABLE OPTIONS\***

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

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2"	0.30 lbs (0.12 kg)	upon request
2 1⁄2"	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**

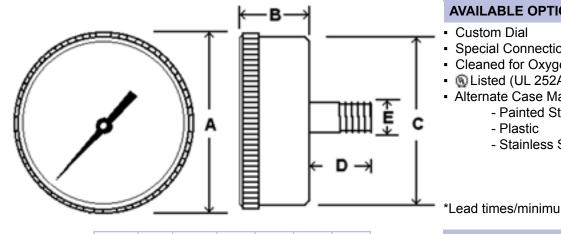
Dial Case Wetted Parts Bezel Lens Pointer Connection

Scale

Accuracy Ambient Temp

2" (50 mm), 2 ½" (63 mm) Highly polished copper alloy, dry non-fillable Copper allov Removable lens Plastic, twist on Black aluminum Center back mount 1⁄4" NPT Standard: single scale psi 3-2-3% of span, ASME B40.1 Grade B -4° F to 140° F Design meets or exceeds ASME B40.100 pressure gauge standard.





	Dial	Unit	Α	в	С	D	Е
	2"	ln.	2.31"	1.08"	2.10"	0.84"	1⁄4"
	2	mm	59	27	53	21	NPT
	2 1⁄2"	ln.	2.83"	1.13"	2.65"	1.13"	1⁄4"
	Ζ /2	mm	72	29	68	29	NPT

### **AVAILABLE OPTIONS\***

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

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2"	0.30 lbs (0.12 kg)	upon request
2 1⁄2"	0.35 lbs (0.16 kg)	upon request



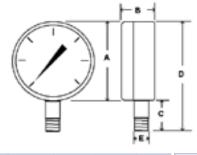
# **ALTITUDE SERIES**

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
Ranges	0/15 psi to 0/200 psi
Bezel	Chrome
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.





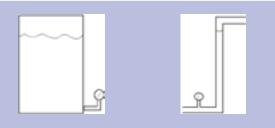
### **AVAILABLE OPTIONS\***

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

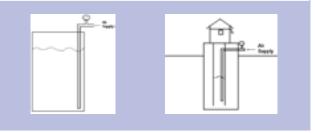
Dial	Unit	Α	В	С	D	Е		Range	*Lead times/minimums may apply		olv	
3 1/2"	ln.	3.53"	1.14"	1.02"	4.55"	1/4"	Range	psi	Ft. of Wa-	Lead times/minimums may apply		
5 /2	mm	90	29	26	116	NPT	Code		ter Col.	er Col.		
	ln.	4.89"	1.16"	1.16"	6.05"	1/2	В	0/15	0/34	<b>APPROXIMATE SHIPPING WEIGHTS/</b>		
4 ½"				-		/₄" NPT	С	0/30	0/70	BOX QUANTITIES	TIES	
	mm	124	29	29	154		D	0/60	0/140			
										Dial Size	Est. Unit Wt.	Box Qty
D	ial Size		Standa	rd Part	Numbe	rs	E	0/100	0/230	3 1/2"	0.5 lbs/(0.24 kg)	upon request
	3 1⁄2"		ALTITUDE	-354L-R			F	0/160	0/370	J 72	0.5 IDS/(0.24 Kg)	upon request
						-	0	0/000		4 1⁄2"	0.65 lbs/(0.3 kg)	upon request
	4 <sup>1</sup> / <sub>2</sub> " ALTITUDE-454L-RANGE CODE		G	0/200	0/460	<u></u>	I	· · · · · · · · · · · · · · · · · · ·				

#### Note:

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						

\*For Agricultural Ammonia gauges, see page 91.

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.



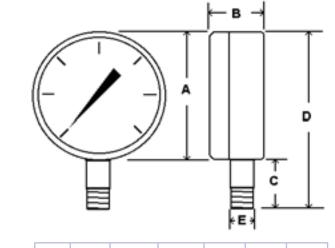
### **401NH3 SERIES**

Dry non-fillable gauge for ammonia refrigeration applications Chrome plated steel case, stainless steel internals and steel socket

#### **SPECIFICATIONS**

2 ½" (63 mm), 4" (100 mm) Chrome plated steel case, dry non-fillable Steel socket, stainless steel Bourdon tube 30/0/150 psi/-40/0/80° F 30/0/300 psi/-40/0/120° F
Removable lens
Plastic, twist-off
<ul> <li>2 ½" - adjustable, black aluminum</li> <li>4" - without adjustment, black aluminum</li> </ul>
Lower mount ¼" NPT
Standard: psi/° F temperature equivalent
3-2-3% of span ASME B40.1 Grade B
Dry = $-40^{\circ}$ 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.	2.87"	1.14"	2.65"	0.84"	1⁄4"
	Ζ /2	mm	73	29	67	21	NPT
	4"	ln.	4.21"	1.35"	3.89"	1.03"	1⁄4"
		mm	107	34	99	26	NPT



### AVAILABLE OPTIONS\*

- Custom Dial
- Special Connection Size
- Other Ranges

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.3 lbs (0.14 kg)	50
4"	0.55 lbs (0.24 kg)	50

# **AMMONIA-LF SERIES**

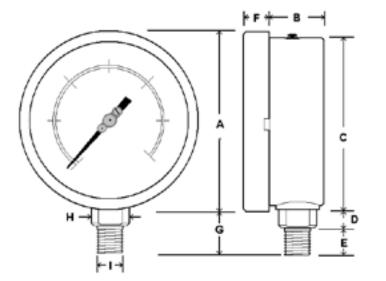


### Glycerine filled gauge for ammonia refrigeration applications Stainless steel case, 316 stainless steel internals

### **SPECIFICATIONS**

Dial	2 ½" (63 mm), 4" (100 mm)
Case	Stainless steel, glycerine filled
Wetted Parts	316 stainless steel
Ranges	30/0/150 psi/-40/0/80° F
	30/0/300 psi/-40/0/120° F
Bezel	Removable, stainless steel
Lens	Polycarbonate
Pointer	Adjustable, black aluminum
Connection	Lower mount
	1⁄4" NPT
Scale	Standard: psi/° F temperature equivalent
Accuracy	2-1-2% of span ASME B40.1 Grade A
Ambient Temp	Glycerine Filled = $30^{\circ}$ F to $160^{\circ}$ F Dry = $-40^{\circ}$ F to $180^{\circ}$ F

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



	Dial	Unit	Α	В	С	D	Е	F	G	н	I
Γ	2 1⁄2"	ln.	2.72"	0.76"	2.50"	0.24"	0.49"	0.44"	0.70"	0.55"	1⁄4"
		mm	69	19.5	64	6.2	12.4	11.3	18	14	NPT
Γ	4"	ln.	4.32	1.30	4.00	0.52	0.56	0.57	1.00	0.04	1⁄4″
		mm	110	33	103	13.3	15	14.6	27.5	21.5	NPT



### **AVAILABLE OPTIONS\***

- Custom Dial
- Liquid Fill Options, see page 176
- Glow Dials
- Special Connection Size
- Other Ranges

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.50 lbs (0.22 kg)	100
4"	1.75 lbs (0.80 kg)	30



### 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° F to 180° F
-	Glycerine Filled = 30° F to 160° F



### **AVAILABLE OPTIONS\***

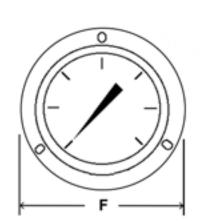
- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Plastic Lens

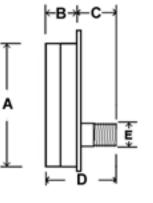
\*Lead times/minimums may apply

### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Wt.	Box Qty
6"	2.45 lbs (1.12 kg)	upon request

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





Dial	Unit	Α	в	С	D	Е	F
6"	ln.	6.75"	2.00"	1.53"	3.53"	1⁄4"	7.65"
0	mm	171	50	38	88	NPT	194

# AMMONIA-804 LOWER BACK MOUNT



Heavy duty black aluminum gauge Removable bezel, adjustable pointer Suitable for applications not corrosive to stainless steel

### SPECIFICATIONS

Dial Case

Wetted Parts Ranges

Bezel Lens Pointer

Connection

8" (203 mm) Aluminum black painted, dry non-fillable, rear flange 316 stainless steel 30/0/150 psi/-100/0/84° F 30/0/300 psi/-100/0/125° F Removable, black aluminum Tempered glass Adjustable, black aluminum Lower back mount 1⁄4" NPT Standard: psi/° F temperature equivalent 1% of span ASME B40.1 Grade 1A -30° F to 180° F

Scale Accuracy Ambient Temp

Α

7.93"

201

в

1.59"

40

С

1.41"

36

D

3.00"

76

Е

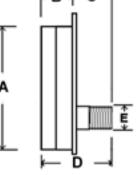
1⁄4"

NPT

F

9.13"

232



June .	- House
50 7	90
10	110
30 Vacuus	150

### **AVAILABLE OPTIONS\***

- Certificate of Accuracy, NIST traceable
- Custom Dial
- Special Connection Size
- Cleaned for Oxygen Service
- Plastic Lens

\*Lead times/minimums may apply

### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Wt.	Box Qty
8"	3.95 lbs (1.80 kg)	upon request

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Dial

8"

Unit

ln.

mm



### ADDITIONAL AMMONIA GAUGES

### Ammonia refrigerant gauges

### **AMMONIA PROCESS GAUGE SPECIFICATIONS**

Dial Case

Wetted Parts Ranges

Bezel Lens Pointer Connection

Scale Accuracy Ambient Temp 4  $\frac{1}{2}$ " (114 mm), 6" (160 mm) Phenolic - Solid front blow out back on 4  $\frac{1}{2}$ " Aluminum with hinged front flange on 4  $\frac{1}{2}$ " & 6" 316 stainless steel 30/0/150 psi/-40/0/80° F 30/0/300 psi/-40/0/120° F Removable Polycarbonate Adjustable, black aluminum Lower mount or lower back mount  $\frac{1}{4}$ " or  $\frac{1}{2}$ " NPT for 4  $\frac{1}{2}$ " & 6" Standard: psi/° F temperature equivalent 0.5% of span on 4  $\frac{1}{2}$ " & 6" ASME B40.1 Grade 2A Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F



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

5

### AMMONIA PANEL MOUNT SPECIFICATIONS

Dial Case Wetted Parts Ranges	2 ½" (63 mm), 4" (100 mm), 6" (160 mm) Stainless steel 316 stainless steel 30/0/150 psi/-40/0/80° F 30/0/300 psi/-40/0/120° F
Bezel Lens Pointer Connection	Stainless steel, removable Laminated safety glass Adjustable, black aluminum Lower back mount with front flange 1/4" NPT for 2 1/2" 1/4" or 1/2" NPT for 4" & 6"
Scale Accuracy Ambient Temp	Standard: psi/° F temperature equivalent 1% of span ASME B40.1 Grade 1A Glycerine Filled = 30° F to 160° F Dry = -30° F to 180° F

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



314D-254/404/6004 page 42 & page 55

# **401A SERIES AGRICULTURAL AMMONIA GAUGE**

2 <sup>1</sup>/<sub>2</sub>" (63 mm), 4" (100 mm)



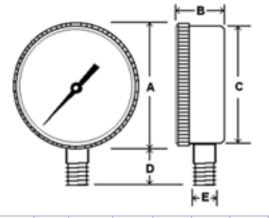
Dry, non-fillable gauge for agricultural ammonia applications Black painted steel case, stainless steel internals and steel socket

### **SPECIFICATIONS**

Dial Case

-	
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
	¼" NPT
Scale	Standard: single scale psi
Accuracy	3-2-3% of span, ASME B40.1 Grade B
Ambient Temp	-40° F to 180° F
Design meets or exceed	ds ASME BAO 100 pressure aguae stand

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



Dial	Unit	Α	в	С	D	Е
2 1/2"	ln.	2.84"	1.18"	2.65"	0.67"	1⁄4"
2 /2	mm	72	30	67	17	NPT
4"	In.	4.05"	1.40"	3.87"	0.89"	1⁄4"
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 1⁄2"	0/60 psi	10 psi	1 psi
401A-254F	2 1⁄2"	0/160 psi	40 psi	5 psi
401A-254I	2 1⁄2"	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

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	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

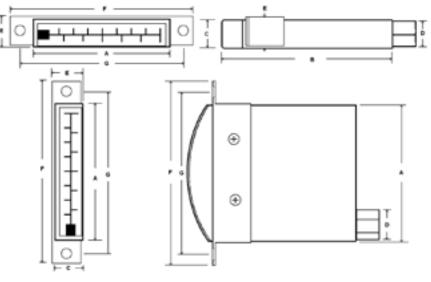
### SPECIFICATIONS

5

Dial	1 <sup>3</sup> ⁄ <sub>4</sub> " x <sup>1</sup> ⁄ <sub>2</sub> " horizontal or vertical
Case	Plastic, with or without mounting bracket
Wetted Parts	Copper alloy
Ranges	0/60 psi, 0/100 psi, 0/120 psi
Lens	Plastic
Pointer	Red plastic
Connection	Back 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° F to 160° F



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



Shown with optional panel mount front bracket

Dial	Unit	Α	В	С	D	Е	F	G
1 ¾"	ln.	1.76"	2.28"	0.51"	0.43"	0.55"	2.5"	2.16"
1 74	mm	45	58	13	11	14	63.6	55

### 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

Size	Est. Unit Wt.	Box Qty
1 ¾"	0.10 lbs (0.04 kg)	upon 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

SPECIFICA	TIONS				
Dial Case Wetted Part	s (	Copper	ainteo alloy	l steel, dry non-fillable Bourdon tube & socket Horizontal/vertical chrome plated	
Ranges Bezel Lens Pointer Connection	S F F L	,	snap lumin nount	um	
Scale Accuracy Ambient Ter Test Block	93 10 10 10 10 10 10 10 10 10 10 10 10 10	Standar 3-2-3% 40° F to Steel wi	rd: si of sp o 160 ith va	ngle scale psi an, ASME B40.1 Grade B ° F Ive for pressurization	AVAILABLE OPTIONS*
Design meet				.100 pressure gauge standard.	<ul> <li>Custom Dial</li> </ul>
	PAF	RT NUM	<b>NBEF</b>	RING SYSTEM	<ul> <li>Special Connection Size</li> </ul>
					Other Ranges
	Gauge eel Case, alloy Internal	s		HOUSING H = Horizontal V = Vertical BELL = Bell	*Lead times/minimums may apply
-	TION SIZE		]	<b>RANGE</b> 15 = 0/15 psi	APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES
<b>1</b> = 1" FN <sup>3</sup> / <sub>4</sub> = <sup>3</sup> / <sub>4</sub> " F <sup>1</sup> / <sub>2</sub> = <sup>1</sup> / <sub>2</sub> " F	NPT NPT			<b>30</b> = 0/30 psi <b>60</b> = 0/60 psi <b>100</b> = 0/100 psi	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
CONF	ANDARD D IGURATION S TEST SER	S FOR		<b>160</b> = 0/160 psi <b>200</b> = 0/200 psi	VERTICAL 2" DIAL SIZE 1/2" FNPT: 0.70 lbs (0.32 kg)/50 pcs
Dial Range	Figure Intervals	Gradua Interv			3/4" FNPT: 0.65 lbs (0.28 kg)/50 pcs 1" FNPT: 0.85 lbs (0.38 kg)/50 pcs
0/15 psi	1 psi	0.1 p			
0/30 psi	5 psi	0.25			BELL 2" DIAL SIZE
0/60 psi	10 psi	0.5 p	osi		1/2" FNPT: 0.40 lbs (0.20 kg)/50 pcs 3/4" FNPT: 0.50 lbs (0.22 kg)/50 pcs
0/100 psi	20 psi	1 ps	si		1" FNPT: 0.60 lbs (0.26 kg)/50 pcs
0/160 psi	20 psi	2 ps	si		
0/200 psi	20 psi	5 ps	si		
NOTE: Not all part				stock Consult BIC Gauges for availability	

NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

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### GT SERIES GAS TEST GAUGE

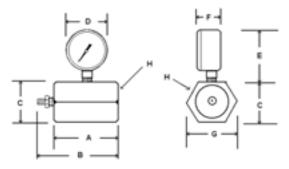
Utility gas test gauge with horizontal, vertical or bell shaped housing For pressure tests of residential and commercial piping systems





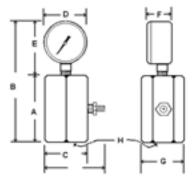


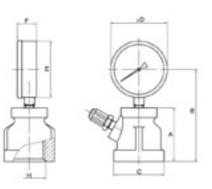
HORIZONTAL DIMENSIONS											
Unit	Α	В	С	D	Е	F	G	н			
ln.	2.13"	2.81"	1.10"	2.02"	2.56"	1.03"	1.24"	1⁄2"			
mm	54.10	71.45	27.97	51.35	65.02	26.29	31.5	NPT			
ln.	2.13"	2.81"	1.13"	2.02"	2.56"	1.03"	1.33"	<sup>3</sup> /4"			
mm	54.10	71.45	28.8	51.35	65.02	26.29	33.9	NPT			
ln.	2.13"	2.81"	1.40"	2.02"	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	Е	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"	<sup>3</sup> /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				

	BELL DIMENSIONS											
Unit	Α	В	С	D	Е	F	н					
In.	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					
In.	1.50"	3.07"	1.48"	2.07"	2.02"	1.11"	<sup>3</sup> /4"					
mm	38	78	37.5	52.6	51.2	28.3	NPT					
In.	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

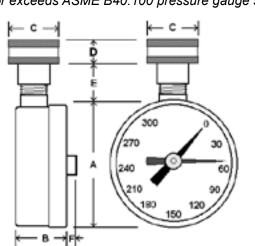


Utility water test gauge with or without maximum indicating pointer For pressure tests of residential and commercial water lines

### SPECIFICATIONS

Dial	2 ½" (63 mm)
Case	Black plastic, dry non-fillable
Wetted Parts	Copper alloy
Ranges	0/300 psi
Bezel	Black steel, fixed
Lens	Plastic
Pointer	Black aluminum
Connection	Top mount
	<sup>3</sup> / <sub>4</sub> " 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	A	в	с	D	Е	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** 

5

### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size/Location
- Other Ranges

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.35 lbs (0.16 kg)	50



### **509L LONG WALL MINING** GAUGE

One-piece forged Copper alloy gauge designed for long wall mining equipment 0/9000 psi color zone dial and hydraulic quick connect

#### **SPECIFICATIONS**

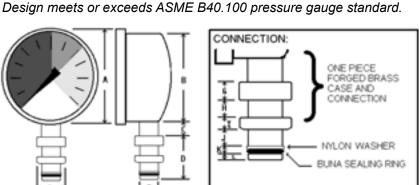
Dial	2" (50 mm), color zones
	Red: 0/4000 psi
	Green: 4000/6000 psi
	Yellow: 6000/9000 psi
Case	Forged Copper alloy, silicone filled
Wetted Parts	Copper alloy
Ranges	0/9000 psi / 0/600 BAR
Bezel	Stainless steel
Lens	Plastic
Pointer	White aluminum
Connection	Lower mount
	3/8" "Steck-o" type mining industry 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



### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges





Dial	Unit	Α	В	С	D	Е	F
<b>o</b> "	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
<b>0</b> "	ln.	0.30"	0.20"	0.19"	0.19"	0.13"	0.13"
2	mm	8	5	5	5	3	3

\*Lead times/minimums may apply

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

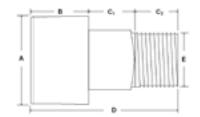
### SPECIFICATIONS

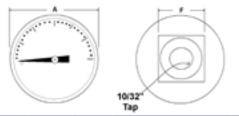
Dial Case Wetted Parts Ranges Lens Pointer Connection

Scale

Accuracy Ambient Temp 1" (25.4 mm) Black plastic, dry non-fillable Copper alloy 0/30, 0/60, 0/100, 0/160 psi Plastic Black aluminum Center back mount ½" NPT with 10/32" tap Standard: single scale psi 3-2-3% of span, 1" ASME B40.1 Grade B Dry = -30° F to 180° F

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





Dial	Unit	Α	В	C1	C2	D	Е	F
1"	ln.	0.98"	0.58"	0.34"	0.28"	1.21"	1⁄8"	0.47"
I	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

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
1"	0.05 lbs (0.02 kg)	upon request

### **1" HEX GAUGE**

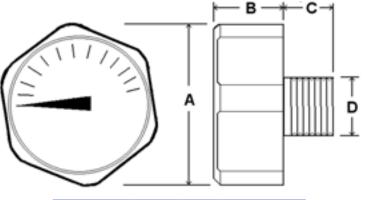


Miniature gauge for applications where space constraints are a concern Suitable for air, water, oil, gas or other media not corrosive to Copper alloy

### SPECIFICATIONS

Dial Case	1" (25.4 mm) Nickel plated hex case, dry non-fillable
Wetted Parts	Copper alloy
Ranges	0/160 - 0/6000
Bezel	Fixed
Lens	Plastic
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° F to 160° 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

HEA 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

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
1"	0.35 lbs (0.16 kg)	upon request

# **SAE-201L** LOWER MOUNT



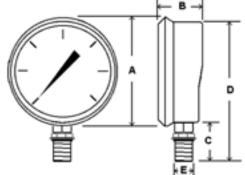
### Glycerine filled gauge with SAE4 connection Suitable for air, water, oil, gas or other media not corrosive to Copper alloy

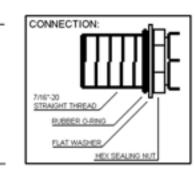
### **SPECIFICATIONS**

Dial	2 ½" (63 mm)
	, ,
Case	Stainless steel, glycerine filled
Wetted Parts	Copper alloy
Ranges	30" Hg Vac/0 - 0/10,000 psi
Bezel	Stainless steel, fixed
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)
Accuracy	2-1-2% of span, ASME B40.1 Grade A
Ambient Temp	Glycerine Filled = 30° F to 160° F
	Dry = -30° F to 180° F

Certificate of Accuracy, NIST Traceable

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





0/2000 psi

0/3000 psi

0/4000 psi

0/5000 psi

0/6000 psi

0/10,000 psi

	Dial	Unit	Α	В		С	D		E
	2 1/2"	ln.	2.80"	1.28	"	1.07"	3.55"	7	/16-20 SAE
	2 ½ mm		71	33		27	90	'	/10-20 SAE
	SAE PART NUMBERS								
	Part Numbe	er	Dial Ra	inge		Pa Nun	art 1ber		Dial Range
	201L-25XA-SAE4		30/0" Hợ	g vac	201L-25XM-SAE4			0/1000 psi	
201L-25XC-SAE4		0/30 p	osi	2	01L-25XI	N-SAE4		0/1500 psi	

201L-25XO-SAE4

201L-25XP-SAE4

201L-25XQ-SAE4

201L-25XR-SAE4

201L-25XS-SAE4

0/60 psi

0/100 psi

0/160 psi

0/200 psi

0/400 psi

\*Lead times/minimums may apply

**AVAILABLE OPTIONS\*** 

**Special Connection Size** 

Center Back Mount Other Ranges

Custom Dial

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

Dial Size	Est. Unit Wt.	Box Qty
2 1⁄2"	0.45 lbs (0.22 kg)	upon request

201L-25XJ-SAE4 0/500 psi 201L-25XU-SAE4 201L-25XK-SAE4 0/600 psi



201L-25XD-SAE4

201L-25XE-SAE4

201L-25XF-SAE4

201L-25XG-SAE4

201L-25XI-SAE4

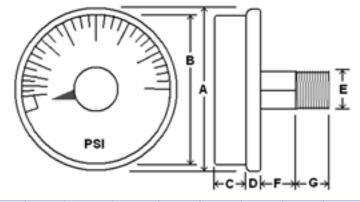


Direct drive gauge for applications requiring enhanced durability and repeatability Suitable for air, water, oil, gas or other media not corrosive to Copper alloy

### SPECIFICATIONS

Dial Case	1 ¼" (36 mm), 1 ½" (42 mm) Stainless steel, dry non-fillable
Wetted Parts	Copper alloy
Ranges	0/160, 0/300, 0/500, 0/1000, 0/3000 psi
Lens	Plastic
Pointer	Red aluminum
Connection	Center back mount %" NPT
Scale	Standard: single scale psi
Accuracy Ambient Temp	5% of span, ASME B40.1 Grade D 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"
1 74	mm	36	31	4	7	NPT	7	8
1 1/2"	ln.	1.65"	1.46"	0.23"	0.23"	1⁄8"	0.23"	0.33"
1 72	mm	42	37	6	6	NPT	6	8.5

Contact PIC Gauges for configurations and ordering information



### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
1 ¼"	0.05 lbs (0.02 kg)	upon request
1 ½"	0.05 lbs (0.02 kg)	upon request

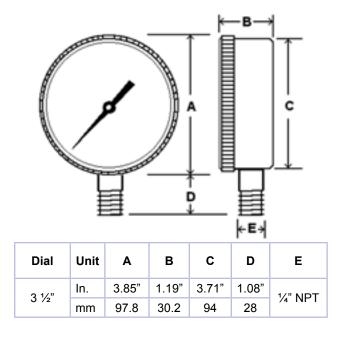
# **SPRINKLER GAUGE**



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**

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



SPRINKLER PART NUMBERS				
Part Number	Dial Range	Figure Intervals	Graduation Intervals	
SPRINKLER-AIR	0/80/250	100 psi	10 psi	
SPRINKLER-WATER	0/300 psi	25 psi	5 psi	



### **AVAILABLE OPTIONS\***

- Custom Dial
- Special Connection Size
- Other Ranges
- Repairable

\*Lead times/minimums may apply

Dial Size	Est. Unit Wt.	Box Qty
3 1/2"	0.45 lbs (0.22 kg)	50



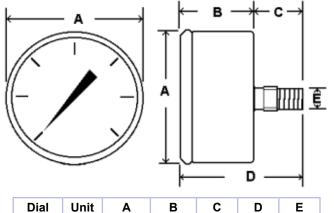
## **40MM POSITIONER GAUGE**

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
Ranges	0/30, 0/60, 0/100, 0/160 psi
Lens	Plastic
Pointer	Black aluminum
Connection	Center back mount
	1∕8" NPT
Scale	Standard: psi/BAR (x 100 = kPa)
Accuracy	3-2-3% of span, ASME B40.1 Grade B
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
10 mm	ln.	1.61"	1.02"	0.84"	1.76"	1⁄8"
40 mm	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

\*Lead times/minimums may apply

#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

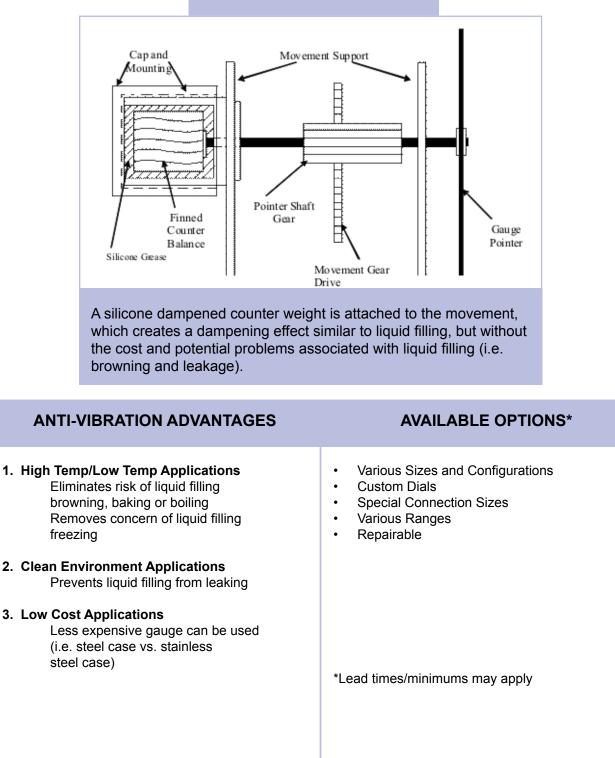
Dial Size	Est. Unit Wt.	Box Qty
40 mm	0.20 lbs	50
	(0.08 kg)	

## **ANTI-VIBRATION MOVEMENT**



### Creates liquid filled performance in a dry gauge Suitable for rugged applications requiring dry gauges







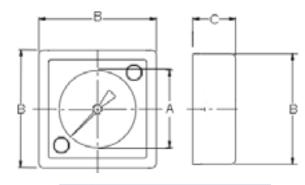
### **1" REGULATOR GAUGE**

### Black ABS case, copper alloy internals

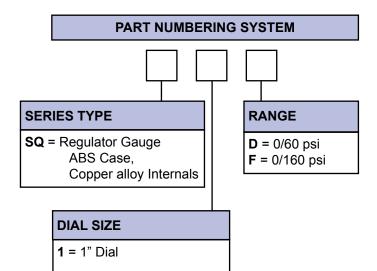
#### SPECIFICATIONS

Dial	1" (25.4 mm)
Case	Black ABS case, dry non-fillable
Wetted Parts	Copper alloy
Lens	Plastic
Pointer	Black aluminum
Connection	Center back mount, o-ring 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
4.7	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
1"	0.04 lbs (0.02 kg)	upon 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**

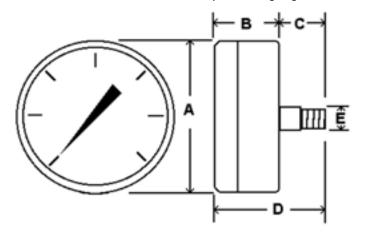


### Utility gauge with color zones for optimal filter performance Black steel case and bezel, copper alloy internals

#### SPECIFICATIONS

Dial	1 ½" (40 mm), 2" (50 mm)
Case	Black steel, dry non-fillable
Wetted Parts	Copper alloy
Ranges	30/0" hg Vacuum, 0/60 psi
Bezel	Black painted steel, fixed
Lens	Glass
Pointer	Black aluminum
Connection Scale Accuracy Ambient Temp	Center back mount 1 ½" dial = ½" NPT 2" dial = ½" NPT Standard: psi/BAR (x 100 = kPa) 3-2-3% of span, ASME B40.1 Grade B -50° F to 160° F

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



Dial	Unit	Α	В	С	D	Е
1 1/2"	ln.	1.64"	0.93"	0.63"	1.56"	1/ " NDT
1 /2	mm	42	24	16	39	1∕₃" NPT
2"	ln.	2.07"	1.03"	0.83"	1.86"	1∕‰" NPT
2	mm	53	26	21	47	

#### 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 109

5

- Cleaned for Oxygen Service
- Special Connection Size
- Protective Rubber Cover, see page 121
- Plastic Lens
- Max/Min Pointer, see page 122

\*Lead times/minimums may apply

#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Weight	Box Qty
1 1⁄2"	0.15 lbs (0.06 kg)	100
2"	0.25 lbs (0.10 kg)	100

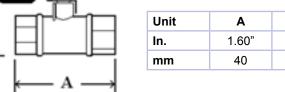


### **GAUGE VALVES**

### **MINI BALL VALVES**

### <u>A14</u>

- Ball valve type gauge cock
- 1/4" FNPT X 1/4" FNPT
- Brass body rating: 700 psi at 250° F
- Est. Unit Wt.: 0.10 lbs/0.06 kg

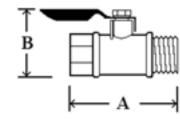


Unit	Α	В
ln.	1.60"	1.30"
mm	40	33



### <u>A15</u>

- Ball valve type gauge cock
- 1/4" MNPT X 1/4" FNPT
- Brass body rating: 700 psi at 250° F
- Est. Unit Wt.: 0.10 lbs/0.06 kg



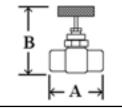
Unit	Α	В
ln.	1.60"	1.35"
mm	40	34



### **BRASS NEEDLE VALVES**

### <u>NV-B-1/4</u>

- Needle valve
- ¼" FNPT X ¼" FNPT (NV-B-1/4-FXF)
- 1/4" MNPT X 1/4" FNPT (NV-B-1/4-MXF)
- 1/4" MNPT X 1/4" MNPT (NV-B-1/4-MXM)
- Brass body rating: 600 psi @ 300 °F
- Est. Unit Wt.: 0.25 lbs/0.10 kg



Configuration	Box Qty
FXF	80
MXF	200
МХМ	20

Unit	Α	В
ln.	1.62"	1.94"
mm	41	49



### **GAUGE VALVES**



GAUGE COCI	۲S	
T-HANDLE COCK - Material Pressure Rating Connection Size Est. Unit Wt.	A10 Polished brass Up to 125 psi hydraulic ¼" FNPT X ¼" FNPT 0.15 lbs/0.06 kg	
LEVER HANDLE - A Material Pressure Rating Connection Size Est. Unit Wt.	A11 Polished Brass Up to 200 psi hydraulic ¼" MNPT X ¼" FNPT 0.15 lbs/0.06 kg	
LEVER HANDLE - A Material Pressure Rating Connection Size Est. Unit Wt.	A12 Polished Brass Up to 200 psi hydraulic 1⁄4" FNPT X 1⁄4" FNPT 0.15 lbs/0.06 kg	

6





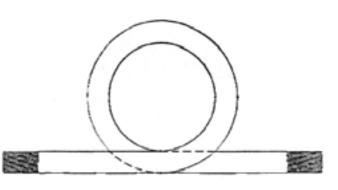
#### **SPECIFICATIONS**

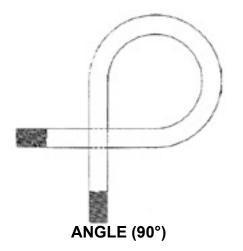
Purpose

Materials

Syphons protect instruments from effects of hot pressure media commonly used in steam applications Brass Steel schedule 40 Steel schedule 80 316 Stainless steel schedule 80







STRAIGHT (180°)

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 ¼" 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 ¼" NPT stainless steel syphon, 316 ss sched 80	2000 psi	1000° F	0.50	0.22
CPSS2	Straight 1/2" NPT stainless steel syphon, 316 ss sched 80	2000 psi	1000° F	1.65	0.74

#### NOTE: Other configurations available upon request.

## **TEST PORT PLUG**



### **SPECIFICATIONS**

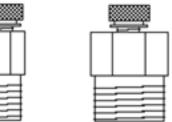
#### Purpose

Connection Materials

Pressure Rating Est. Unit Weight Pressure & Temperature Test Port Plugs For permanent installation into piping systems <sup>1</sup>/<sub>8</sub>", <sup>1</sup>/<sub>4</sub>", <sup>1</sup>/<sub>2</sub>" NPT Brass body Nordel core 1000 psi at 200° F 0.15 lbs/0.08 kg

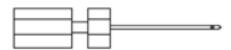






Part Number	Nominal Size	Overall Length	Material	Temperature/ Pressure	Body Hex	Cap Hex	Core Material
PLUG-1/8	1⁄8" NPT	1 ¼"	Brass	350° F/1000 psi	13/16"	9/16"	Nordel
PLUG-1/4	1⁄4" NPT	1 1⁄2"	Brass	350° F/1000 psi	1 1/16"	1 1⁄2"	Nordel
PLUG-1/2	1⁄2" NPT	1 1⁄2"	Brass	350° F/1000 psi	1 1/16"	1 1⁄2"	Nordel





Adapters for Test Port Plugs						
ADAPTER-PP-1/8 1/8" 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 <sup>3</sup> ⁄ <sub>4</sub> " Extension for Test Port Plug (1⁄ <sub>4</sub> " NPT)			
PLUG-EXT-1/2	2" Extension for Test Port Plug (1/2" NPT)			



## FILTER TYPE PRESSURE SNUBBER

#### **SPECIFICATIONS**

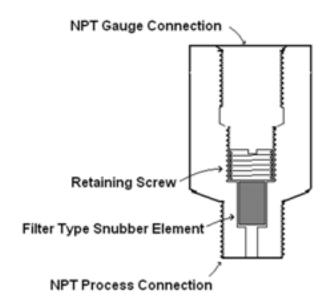
Purpose

Media Connection Materials Design Type Dampens pressure pulsation and slows the effects of surges or sudden pressure spikes Can be disassembled for cleaning Water, air, oil, gas ½", ¼" or ½" NPT Stainless steel, Brass Porous element



Part Number	Description	Units	Α	в	Pressure Rating	L A
BW42-1/8	%" NPT MxF Brass	Inches	0.74"	1.35"	2.000 poi	<u>~ ^ </u>
BVV42-1/8	78 NPT MXF Brass	mm	18.9	35	3,000 psi	⊢
BW42 ¼" NPT MxF Brass	Inches	0.75"	1.70"	2.000 poi		
	mm	19	43.1	3,000 psi		
BW41-1/2	½" NPT MxF Brass	Inches	1.25"	2.25"	10.000 poi	
BVV41-1/2	72 NPT MXF Brass	mm	31.7	57.1	10,000 psi	
014/40	1⁄4" NPT MxF	Inches	0.75"	1.70"	5 000 mai	
SW42 Stainless Steel	Stainless Steel	mm	19	43.1	5,000 psi	
A05E <sup>1</sup> / <sub>2</sub> " NPT MxF Stainless Steel	1⁄2" NPT MxF	Inches	1.25"	2.25"	10.000 poi	
	Stainless Steel	mm	31.7	57.1	10,000 psi	





Part Number	Est. Unit Wt. Ibs	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

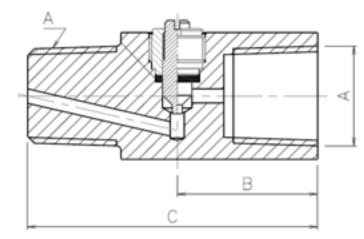
### ADJUSTABLE PRESSURE SNUBBER

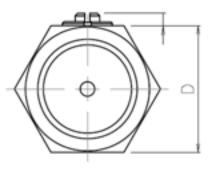


### **SPECIFICATIONS**

Purpose	Adjustable pressure pulsation dampener Additionally, flow control can be regulated via Adjustment knob Can isolate gauge for service or replacement
Connection Materials Pressure Rating Est. Unit Wt.	1/4" or 1/2" NPT 316 Stainless steel 6000 psi maximum 0.50 lbs/0.22 kg







Part Number	Units	Α	В	С	D	Maximum Pressure	Box Quantity
APS-316-4	Inches	¼" NPT	1.00"	2.05"	1.06"	6000 psi	upon request
	mm		25	52	27		
APS-316-2	Inches	½" NPT	1.18"	2.44"	1.06"	6000 psi	32
	mm	/2 INF I	30	62	27		

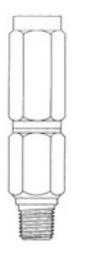


## **PISTON TYPE SNUBBER**

#### **SPECIFICATIONS**

Purpose

Media Connection Materials Pressure Rating Self cleaning piston type snubber dampens pressure pulsation and slows the effects of surges or sudden pressure spikes Water, air, oil, gas  $\frac{1}{4}^{n}$ ,  $\frac{3}{6}^{n}$  or  $\frac{1}{2}^{n}$  NPT Brass, Stainless steel Brass = 3000 psi 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	1⁄2" 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"

\*Available in British Taper Pipe Threads. Add "BSP" to part number when ordering. Lead times/minimums may apply.

## **COOLING TOWER**

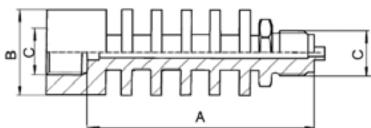
Designed to protect instruments in high



#### **SPECIFICATIONS**

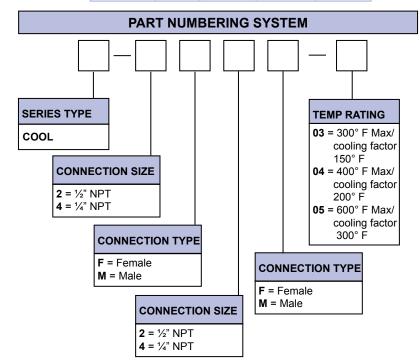
Purpose

Connection Materials Temperature Rating Can reduce media temps by up to  $150^{\circ}$  F,  $200^{\circ}$  F or  $300^{\circ}$  F  $\frac{1}{4}^{\circ}$  or  $\frac{1}{2}^{\circ}$  NPT Stainless steel - 316SS Maximum 300° F/150° C - Cooling factor 150° F/65° C Maximum 400° F/200° C - Cooling factor 200° F/93° C Maximum 600° F/315° C - Cooling factor 300° F/150° C



temperature applications

Cooling Factor	Units	Α	В	С
460° E	In	2.25"	1.06"	1⁄4" or 1⁄2"
150° F	mm	57	27	NPT
200° F	In	3.80"	1.07"	1⁄4" or 1⁄2"
	mm	97	27	NPT
300° F	In	4.22"	1.58"	1⁄4" or 1⁄2"
	mm	107	40	NPT



Cooling Est. Est. Factor Unit Wt. Unit Wt. lbs kg 0.55 0.24 150° F 0.65  $200^{\circ}$  F 0.28  $300^{\circ}$  F 1.20 0.54

6

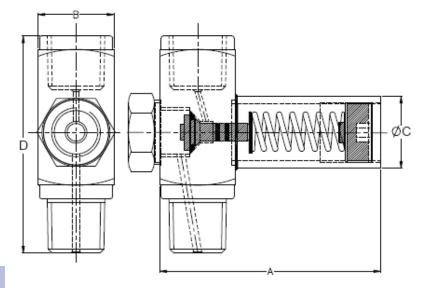


## **PRESSURE LIMITING VALVE**

#### **SPECIFICATIONS**

#### Purpose

Media Connection Materials Pressure Rating Est. Unit Weight Prevent damage to instruments due to sudden pressure surges Water, air, oil, gas ¼" or ½" NPT 316 Stainless steel 6000 psi maximum 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)	1⁄2" male	1/2" female
PLV-4M-4F-(Range)	¼" 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

\*Lead times/minimums may apply

## **RUBBER GAUGE COVER**



### **SPECIFICATIONS**

Purpose	Designed to protect gauges in rugged er	nvironments
	Many standard configurations in stock	
	Custom configurations/colors available	5.11
Materials	Rubber Compound	1.1
Size	1 ½", 2", 2 ½", 4	1000
Connection	Lower or Back Mount	ASSIA

















## **MAX/MIN POINTER**

#### **SPECIFICATIONS**

Purpose	Indicate maximum or minimum pressure achieved in a pressurized system over a given period
Lens Material	Plastic or Glass
Dial Size	2 ½", 4" or 4 ½"
Connection	Lower or Back Mount
Mounting	Direct or Panel
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.

Due to the added resistance of the max pointer, these cannot be used on low pressure gauges.

STANDARD P/N*	DESCRIPTION
MAX-25-DRY-GL	Dry Non-Fillable 2 1/2" Max Pointer for 100 Series Utility Gauges - Glass Lens
MAX-25-DRY-PL	Dry Non-Fillable 2 1/2" Max Pointer for 100 Series Utility Gauges - Plastic Lens
MAX-25-DRY-211311	Dry Non-Fillable 2 1/2" Max Pointer for 210 or 310 Series Gauges - Plastic Lens
MAX-MIN-25-311D	Liquid Fillable 2 1/2" Max/Min Pointer for 310 Series with 2 Red Pointers - Plastic Lens
MAX-POINTER-311D	Liquid Fillable 2 1/2" Max Pointer for 310 Series - Plastic Lens
MAX-POINTER-4001	Liquid Fillable 4" Max Pointer for 4001 Series - Plastic Lens
MAX-POINTER-4501	Liquid Fillable 4 1/2" Max Pointer for 4501 Phenolic Case - Plastic Lens

\*Custom dial sizes & configurations available upon request.

#### **EXAMPLES OF GAUGES WITH MAX/MIN POINTERS**







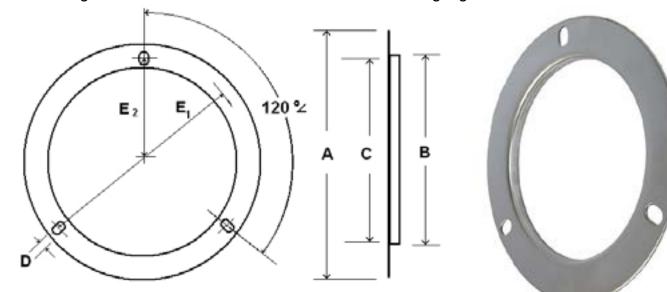


## FRONT AND BACK FLANGES



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



			DIMENSIONAL INFORMATION					
			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	102D-20X, 103D-20X, 202L-20X, 302L-20X	2.81"/71.4 mm	2.08"/53 mm	2.02"/51.2 mm	0.125"/3 mm	2.34"/60 mm	1.17"/30 mm
5	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
6	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
7	FLANGE-62MM	103D-254, SEC-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
8	FLANGE-62MM-NH	302DFW-254, SEC-302DFW-254						
9	FLANGE-64MM-NH	103D-254, SEC-202L-254, 302DFW-254, SEC-302DFW-254	3.43"/87 mm	2.88"/66 mm	2.52"/64 mm	NONE	N/A	N/A
10	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
11	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
12	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
13	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
14	BACK FLANGE-25-SEC	SEC-201L-254, SEC-202L-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
15	BACK FLANGE-4	201L, S201L, 301L	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
16	BACK FLANGE-40	4001, 314D	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
17	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
18	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
19	FLANGE TO ACCOMPANY P	/N 314D-404(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
20	BACK FLANGE TO ACCOMP	ANY P/N 115D-454(X)	5.87"/149mm	N/A	N/A	0.27"/7mm	5.36"/136.4mm	2.68"/68.2mm
21	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
22	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

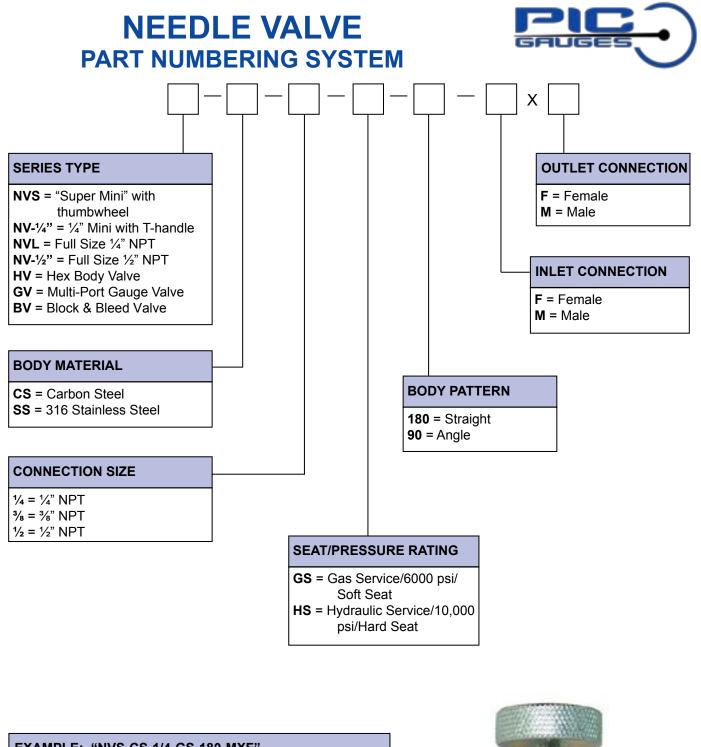
A Division of Engineered Specialty Products, Inc.



### **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.

		H	
NVS "SUPER MINI"	NV-1/4	NV/NVL	NV-90 ANGLE
		AND	
HV HEX BODY	BV BLOCK & BLEED VALVE	GV MULTI-PORT	PANEL MOUNT



EXAMPLE: "NVS-CS-1/4-GS-180-MXF"	
<b>NVS</b> = "Super Mini" with thumbwheel	
<b>CS</b> = Carbon Steel	
1/4 = 1/4" NPT	
<b>GS</b> = Gas Service/6000 psi/Soft Seat	
180 = Straight	
<b>M</b> = Male Inlet	
X	
<b>F</b> = 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

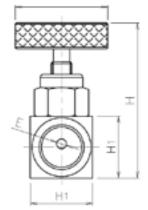
#### **SPECIFICATIONS**

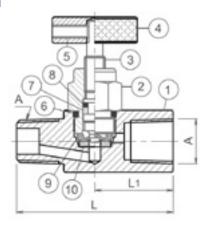
Series Number Material	"NVS" Carbon steel See chart below for component materials
Pressure Rating	Soft seat - 6000 psi at 200° F
Connection Size	¼" NPT, male x female, female x female
	male x male
Handle	Round "thumb wheel"
Seat Material	Soft Seat - POM
Box Quantity	80 pieces
Est. Unit Weight	0.30 lb/0.16 kg

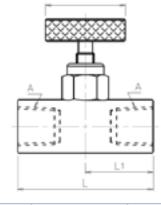


Part Number	Unit	A	L	L1	н	H1	Е	Thumb Wheel
NVS-CS-1/4-GS-180-MXF	In.	1⁄4"	1.85"	0.93"	1.97"	0.75"	0.13"	1.02"
	mm	NPT	47	23.5	50	19	3.3	26
NVS-CS-1/4-GS-180-FXF	ln.	1⁄4"	1.85"	0.93"	1.97"	0.75"	0.13"	1.02"
	mm	NPT	47	23.5	50	19	3.3	26
NVS-CS-1/4-GS-180-MXM	ln.	1⁄4"	1.85"	0.93"	1.97"	0.75"	0.13"	1.02"
	mm	NPT	47	23.5	50	19	3.3	26

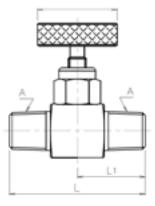
All dimensions shown in the catalog are approximate and subject to change.







Number	Description	Carbon Steel Valve
1	Body	C.S.
2	Bonnet	C.S.
3	Stem	304 SS
4	Handle	C.S.
5	Fixing Screw	C.S.
6	O-Ring	Viton®
7	O-Ring	Viton®
8	Back-up Ring	PTFE
9	Washer	316 SS
10	Soft Seat	POM



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

- High Temperature
- T-handle
- Hard Seat
- 316 SS Material
- 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

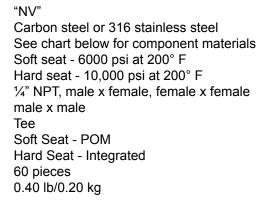
Series Number Material

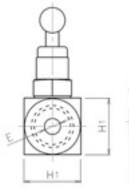
Pressure Rating

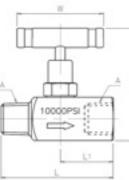
Connection Size

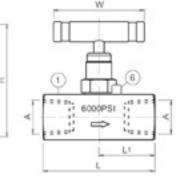
Handle Seat Material

Box Quantity Est. Unit Weight





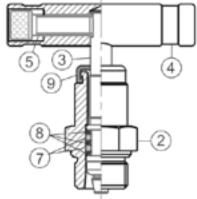




Part Number	Unit	Α	L	L1	Н	H1	Е	W
NV-SS-1/4-HS-180-MXF NV-SS-1/4-HS-180-FXF	ln.	1/4"	2.28"	1.14"	2.48"	0.75"	0.17"	1.81"
NV-CS-1/4-GS-180-MXF NV-CS-1/4-GS-180-MXM NV-CS-1/4-GS-180-FXF NV-CS-1/4-HS-180-MXF NV-CS-1/4-HS-180-FXF	mm	NPT	58	29	63	19	4.2	46

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

\*Lead times/minimums may apply

7



### 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

Carbon steel or 316 stainless steel

"NV" or "NVL" (1/4")

#### **SPECIFICATIONS**

Series Number Material

**Pressure Rating** 

**Connection Size** 

See chart below for component materials Soft seat - 6000 psi at 200° F Hard seat - 10,000 psi at 200° F NV - ½" NPT, ¾" NPT (316 SS only) NVL - ¼" NPT For ¾" or 1" sizes, see HV series page 130-131 male x female, female x female Tee Soft Seat - POM 15 pieces

Handle Seat Material Box Quantity Est. Unit Weight



Soft Seat Part Number

NVL-SS-1/4-GS-180-MXF

NVL-CS-1/4-GS-180-MXF

NV-SS-3/8-GS-180-MXF NV-SS-1/2-GS-180-MXF

NV-CS-1/2-GS-180-MXF NVL-CS-1/4-GS-180-FXF

NV-SS-3/8-GS-180-FXF

NV-SS-1/2-GS-180-FXF

NV-CS-1/2-GS-180-FXF Hard Seat Part Number

NVL-SS-1/4-HS-180-MXF

NVL-CS-1/4-HS-180-MXF

NV-SS-3/8-HS-180-MXF

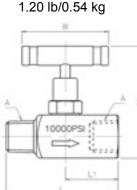
NV-CS-1/2-HS-180-MXF

NV-SS-1/2-HS-180-MXF

NV-SS-3/8-HS-180-FXF

NV-CS-1/2-HS-180-FXF

NV-SS-1/2-HS-180-FXF



Α

1/4"

<sup>3</sup>/8", <sup>1</sup>/2"

NPT

1⁄4",

3/8", 1/2"

NPT

Α

1⁄4",

3/8", 1/2"

NPT

 $\frac{3}{8}^{3}, \frac{1}{2}^{3}$ 

NPT

L

3.23"

82

2.95"

75

L

3.23"

82

2.95'

75

L1

1.38"

35

1.38"

35

L1

1.38"

35

1.48"

37.5

н

3.03"

77

3.03"

77

н

3.03"

77

3.03"

77

Unit

In.

mm

In.

mm

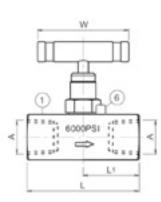
Unit

ln.

mm

In.

mm



H1

1.14"

29

1.14"

29

H1

1.14"

29

1.14"

29

Ε

0.18"

4.5

0.18"

4.5

Ε

0.24"

6

0.24"

6

W

2.24"

57

2.24"

57

W

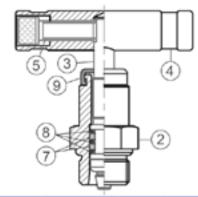
2.24"

57

2.24"

57

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. Innutri	



	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 MountBleed 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.

## **NV-90 ANGLE NEEDLE VALVE**

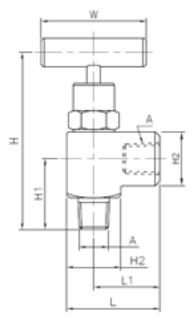


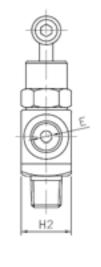
### Strong and Durable, Angle Needle Valve Pressures up to 6,000 psi soft seat, 10,000 psi hard seat

#### **SPECIFICATIONS** Se

"NV-90"
Carbon steel or 316 stainless steel
See chart below for component materials
Soft seat - 6000 psi at 200° F
Hard seat - 10,000 psi at 200° F
1⁄4" or 1⁄2" NPT
male x female, female x female
Тее
Soft Seat - POM; Hard Seat - Integrated
1⁄4": 50 pieces
1/2": 15 pieces
1⁄4": 0.55 lb/0.26 kg
1⁄2": 1.05 lb/0.46 kg Part Number







Number

1

2

3

4

5

6

7

Part Number	Unit	Α	L	L1	н	H1
NV-CS-1/4-GS-90-FXF NV-CS-1/4-GS-90-MXF NV-SS-1/4-GS-90-MXF	ln.	1⁄4" NPT	1.60"	1.10"	3.46"	1.26"
NV-CS-1/4-HS-90-FXF NV-CS-1/4-HS-90-MXF NV-SS-1/4-HS-90-MXF	mm		40.7	28	88	32
NV-CS-1/2-GS-90-FXF NV-CS-1/2-GS-90-MXF	ln.	½" NPT	1.81"	1.54"	4.09"	1.54"
NV-CS-1/2-HS-90-FXF NV-CS-1/2-HS-90-MXF NV-SS-1/2-HS-90-MXF	mm		46	39	104	39

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	ln.	1⁄2"	0.79"	1.26"	2.24"
NV-CS-1/2-HS-90-FXF NV-CS-1/2-HS-90-MXF NV-SS-1/2-HS-90-MXF	mm	NPT	32	32	57

All dimensions shown in the catalog are approximate and subject to change.

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

- High Temperature
- Panel Mount

Carbon

Steel

Valve

C.S.

C.S.

C.S.

C.S.

Viton®

PTFE

304 SS

316

Valve

316 SS

316 SS

316 SS

303 SS

302 SS

Viton®

PTFE

Description

Body

Stem

Bonnet

Handle

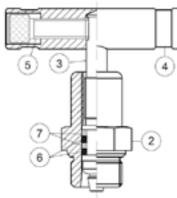
O-Ring

Fixing Screw

Back-Up Ring

- Bleed Screw
- Tube End Connection
- Alternate Connection Sizes

\*Lead times/minimums may apply





## **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**

**Series Number** Material Pressure Rating **Connection Size** 

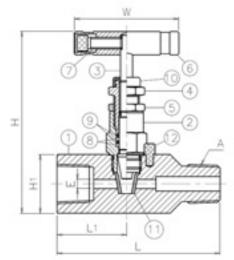
Handle

Seat Material **Box Quantity** 

Est. Unit Weight

"HV" Carbon steel or 316 stainless steel body Soft seat - 6000 psi at 200° F 1/4", 1/2", 3/4" or 1" NPT male x female, female x female Tee Soft Seat - POM Standard: 15 pieces; 1": 10 pieces 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	Soft Seat	POM	РОМ
12	Locking Pin	S303	S303



Soft Seat Part Numbers	Unit	L	L1	н	H1	Е	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	In.	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	In.	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	In.	3.1"	1.6"	4.4"	1.6"	0.3"	2.2"
	mm	80	40	112	41	7	57

(X) = C or S

C = Carbon Steel

S = 316 Stainless Steel

All dimensions shown in the catalog are approximate and subject to change.

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

High Temperature

- NACE
- Tube End Connection
- Alternate Connection Sizes

\*Lead times/minimums may apply

### 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

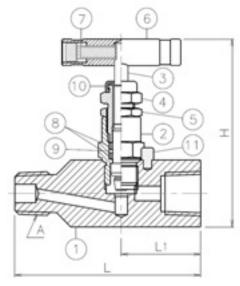
#### **SPECIFICATIONS**

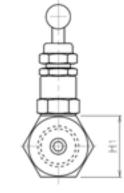
Series Number Material Pressure Rating Connection Size

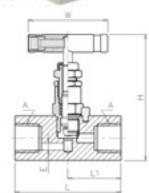
Handle

Box Quantity Est. Unit Weight "HV" Carbon steel or 316 stainless steel body Hard seat - 10,000 psi at 200° F 1/4", 1/2", 3/4" or 1" NPT male x female, female x female Tee Standard: 15 pieces; 1": 10 pieces Standard: 1.25 lb/0.58 kg; 1": 1.75 lb/0.80 kg









Hard Seat Part Number	Unit	L	L1	н	H1	Е	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 HV-(X)S-3/4-HS-180-FXF 3/4" NPT	ln.	3.0"	1.5"	3.9"	1.3"	0.2"	2.2"
	mm	75	37.5	98	32	4.8	57
HV-(X)S-1-HS-180-MXF 1" NPT		3.7"	1.6"	4.4"	1.6"	0.3"	2.2"
		95	41.5	112	41	7	57
HV-(X)S-1-HS-180-FXF 1" NPT		3.1"	1.6"	4.4"	1.6"	0.3"	2.2"
		80	40	112	41	7	57

(X)= C or S

C = Carbon Steel

S = 316 Stainless Steel

- 510 Stairin
- AVAILABLE OPTIONS\*
  - High Temperature
  - NACE
  - Tube End Connection
  - Alternate Connection Sizes

\*Lead times/minimums may apply

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.

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## **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**

Series Number Material Pressure Rating

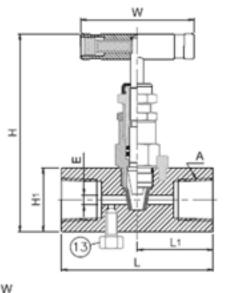
**Connection Size** 

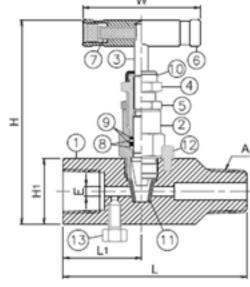
Handle Seat Material

Box Quantity Est. Unit Weight "BV" 316 Stainless steel body 6000 psi soft seat 10,000 psi hard seat 1⁄4" NPT or 1⁄2" NPT male x female Tee Soft Seat - POM Hard Seat - Integrated 15 1.25 lb/0.56 kg



7





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



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"
	mm	1/2"	75	37.5	98
Part Number (Cont'd)	Unit	H1	Е	W	
BV-SS-1/2-HS-180-FXF	ln.	1.26"	0.18"	2.24"	
BV-SS-1/4-HS-180-FXF	mm	32	4.8	57	

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

## 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

"GV"

#### **SPECIFICATIONS**

Series Number Material Pressure Rating

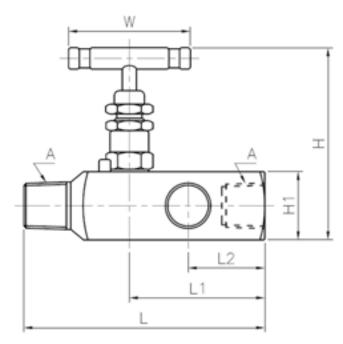
Connection Size

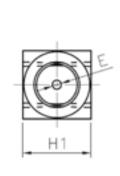
Handle Seat Material

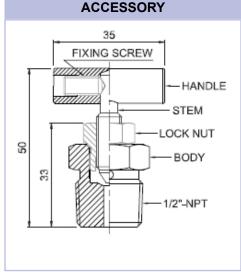
Box Quantity Est. Unit Weight 316 Stainless steel body
6000 psi soft seat
10,000 psi hard seat
½" NPT male inlet x (3) ½" NPT female outlet
¾" NPT male inlet x (3) ½" NPT female outlet
Tee
Soft Seat - POM
Hard Seat - Integrated
12
1.80 lb/0.80 kg



**OPTIONAL BLEED VALVE** 







P/N: BLEED VALVE

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"
GV-55-3/4-15-3VV-IVIXF	mm	3/4"	113	63.5	36	98	32	6	57
GV-SS-1/2-GS-3W-MXF	ln.	1/2"	4.45"	2.50"	1.42"	3.86"	1.26"	0.19"	2.24"
GV-SS-3/4-GS-3W-MXF	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

#### \*Lead times/minimums may apply



### **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.

	A		
M3500 SERIES MINI SEALS Low cost for small instruments Dial size up to 3 ½"	M4500 SERIES MINI SEALS Low cost for medium to large Dial size up to 4 ½"	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	<b>THREADED FLUSH</b> Mini seal - threaded male connection with flush diaphragm	<b>SANITARY</b> Tri-Clamp <sup>®</sup> /Cherry-Burrell <sup>®</sup> , 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	<b>FILLING/CA</b> Using any fill fluid suita See page 151 for	able for the application.

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## **DIAPHRAGM SEALS**

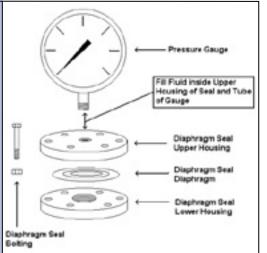


### Considerations when selecting diaphragm seals

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.

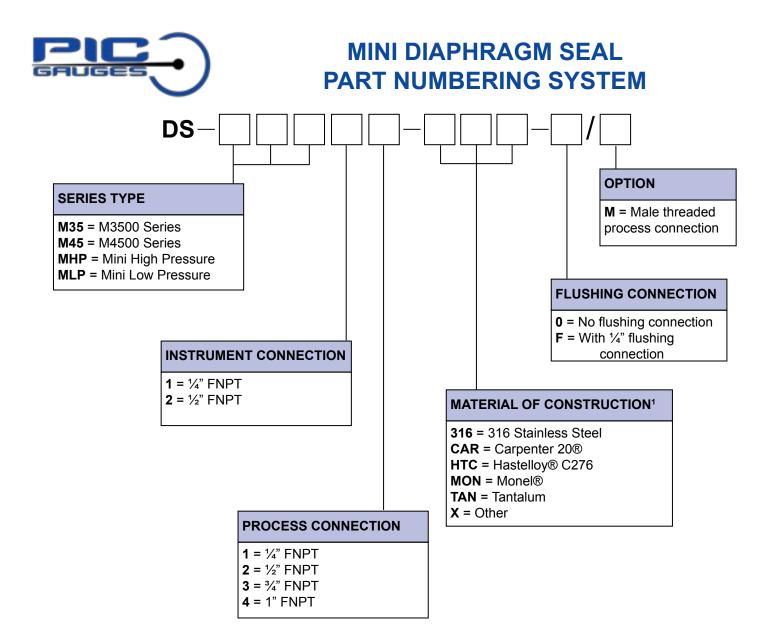
It is important to know as much about the application as possible to ensure that the correct materials are selected for the diaphragm seal assembly.

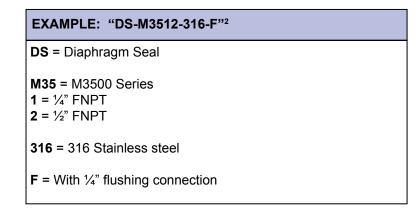


PROCESS MEDIA	In selecting a diaphragm seal, the process media is a top concern. Media composition, ambient and operating temperature, and maximum working pressure are of particular importance in determining the construction of a diaphragm seal system.					
UPPER HOUSING & INSTRUMENT CONNECTION	ypically a support structure for the pressure gauge, the upper housing does not ome 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 ariety 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.

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Notes:

8

1. Consult PIC Gauges for other materials of construction.

2. Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

## M3500 SERIES MINI DIAPHRAGM SEAL



# Threaded mini diaphragm seal for dial sizes up to 3 <sup>1</sup>/<sub>2</sub>" Compact, durable all-welded construction

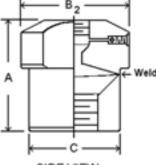
#### **SPECIFICATIONS**

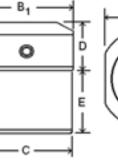
Design	Diaphragm, upper and lower housing welded
Instruments	Gauges, pressure transducers, transmitters
Appropriate Dial Size	1 ½" (38 mm) through 3 ½" (88.9 mm)
Pressures	60 psi through 2500 psi
Upper Housing	Standard: 316 stainless steel
	Optional: Monel®, Hastelloy® C276, Tantalum
Diaphragm	Standard: 316 stainless steel
	Optional: Monel®, Hastelloy® C276, Tantalum
Lower Housing	Standard: 316 stainless steel
	Optional: Monel®, Hastelloy® C276, Tantalum
<b>Process Connection</b>	1⁄4" FNPT, 1⁄2" FNPT, 3⁄4" FNPT
In a function a set O a serie a a film	- 1/" ENDT 1/" ENDT

Instrument Connection <sup>1</sup>/<sub>4</sub>" FNPT, <sup>1</sup>/<sub>2</sub>" FNPT Process Temperature<sup>1</sup> -49°F to 400°F (-45°C to 204°C)

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Β<sub>1</sub>

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TOP VIEW

B2

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

- Flushing (¼") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- Custom upper/lower/diaphragm materials

SIDE VIEW

FRONT VIEW

Diaphragm Seal	Unit	Α	B1	B2	С	D	Е
Standard	ln.	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

With <sup>1</sup>/<sub>4</sub>" Flushing Connection

#### Notes:

1. Process Temperature Rating can vary based on materials of construction, system fill fluid and pressure gauge selection.



### M4500 SERIES MINI DIAPHRAGM SEAL

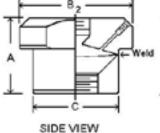
# Threaded mini diaphragm seal for dial sizes up to 4 $\frac{1}{2}$ " Compact, durable all-welded construction

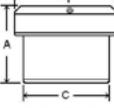
#### **SPECIFICATIONS**

Design	Diaphragm, upper and lower housing welded
Instruments	Gauges, pressure transducers, transmitters
Appropriate Dial Size	Sizes through 4 1/2" (114 mm)
Pressures	30 psi through 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 Connectio	n ¼" FNPT ½" FNPT

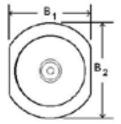
Process Temperature<sup>1</sup> -49°F to 750°F (-45°C to 399°C)







FRONT VIEW



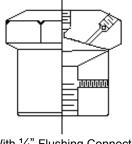
TOP VIEW

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

- Flushing (¼") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- Custom upper/lower/diaphragm materials

\*Lead times/minimums may apply

Diaphragm Seal	Unit	Α	В1	B2	с	D	Е
Standard	ln.	1.48"	2.35"	2.48"	1.91"	0.65"	0.83"
Standard	mm	38	60	63	49	17	21
With Flushing	ln.	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

Notes: 1. Process Temperature Rating can vary based on materials of construction, system fill fluid and pressure gauge selection.

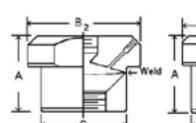
## **MHP MINI HIGH PRESSURE DIAPHRAGM SEAL**

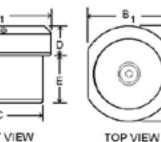


### Threaded mini diaphragm seal for high pressure applications Compact, durable all-welded construction

#### **SPECIFICATIONS**

Design	Diaphragm, upper and lower housing welded				
Instruments	Gauges, pressure transducers, transmitters				
Appropriate Dial Size	1 ½" (38 mm) through 6" (152.4 mm)				
Pressures	1000 psi through 6000 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				
<b>Process Connection</b>	¼" FNPT, ½" FNPT, ¾" FNPT, 1" FNPT				
Instrument Connectio	Instrument Connection 1/4" FNPT, 1/2" FNPT				
Process Temperature	-49°F to 400°F (-45°C to 204°C)				

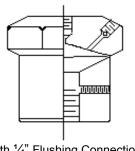




SIDE VIEW

FRONT VIEW

Diaphragm Seal	Unit	А	B1	B2	с	D	E
Standard	In.	1.60"	1.90"	1.99"	1.62"	0.75"	0.85"
	mm	41	48	51	41	19	22
With Flushing	In.	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

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

- Flushing (¼") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned

B2

Q

- Material analysis certificate
- Custom upper/lower/diaphragm materials

\*Lead times/minimums may apply

1. Process Temperature Rating can vary based on materials of construction, system fill fluid and pressure gauge selection.



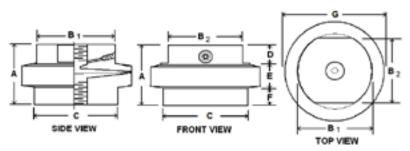
### MLP MINI LOW PRESSURE DIAPHRAGM SEAL

### Threaded mini diaphragm seal for low pressure applications Compact, durable all-welded construction

#### **SPECIFICATIONS**

Design	Diaphragm, upper and lower housing welded
Instruments	Gauges, pressure transducers, transmitters
Appropriate Dial Size	1 ½" (38 mm) through 4 ½" (114.3 mm)
Pressures	Vacuum 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	¼" FNPT, ½" FNPT, ¾" FNPT, 1" FNPT
Instrument Connectio	<b>n</b> ¼" FNPT, ½" FNPT
Process Temperature <sup>1</sup>	-49°F to 750°F (-45°C to 399°C)





Diaphragm Unit Α **B1 B2** С D Е F G Seal 2.48" 1.51" 1.87" 1.74" 1.77" 0.50" 0.53" 0.48" ln. Standard 38 47 44 45 13 12 63 mm 13 2.01" 1.84" 1.86" 1.70" 0.50" 0.50" 0.82" 2.48 In. With Flushing Connection 43 51 63 47 1.47 13 13 21 mm

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

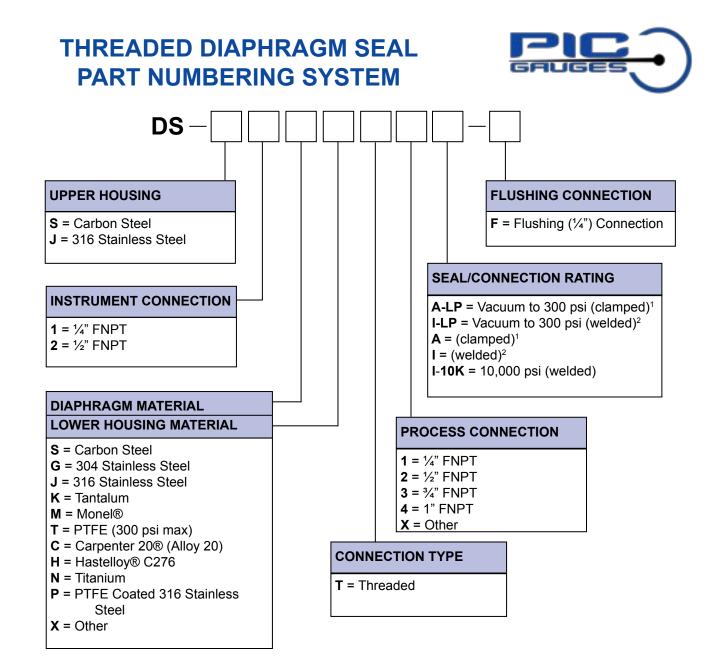
- Flushing (¼") connection available on lower housing
- Male threaded process connection
- Oxygen cleaned
- Material analysis certificate
- Custom upper/lower/diaphragm materials

\*Lead times/minimums may apply



With <sup>1</sup>/<sub>4</sub>" Flushing Connection

Notes: 1. Process Temperature Rating can vary based on materials of construction, system fill fluid and pressure gauge selection.





EXAMPLE: "DS-J2JJT2I-F"3

- DS = Diaphragm Seal
- J = 316 Stainless Steel Upper Housing
- **2** =  $\frac{1}{2}$ " FNPT Instrument Connection
- J = 316 Stainless Steel Diaphragm
- J = 316 Stainless Steel Lower Housing
- **T** = Threaded Connection
- 2 = <sup>1</sup>/<sub>2</sub>" FNPT Process Connection
- I = 2500 psi (welded diaphragm)
- $\mathbf{F}$  = Flushing (<sup>1</sup>/<sub>4</sub>") Connection

Notes

- 1. Metallic diaphragm rated up to 2000 psi
- 2. Metallic diaphragm rated up to 2500 psi
- 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.
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## **THREADED DIAPHRAGM SEAL**

# Threaded full size diaphragm seal Heavy duty, bolted construction

#### **SPECIFICATIONS**

Design	Standard: Diaphragm welded to upper housing Also available: Clamped	
Instruments	Gauges, pressure switches, transmitters	- 2
<b>Appropriate Dial Size</b>	2 ½" (63 mm) through 6" (152.4 mm)	
Pressures	Vacuum or pressures up to 2500 psi	
Upper Housing	Chrome plated carbon steel or stainless steel	- 5
Wetted Materials	Standard: Carbon, 304 or 316 stainless steel	
(Diaphragm/	Also available: Hastelloy® C276, Monel®,	- 8
Lower Housing)	Tantalum, PTFE (clamped), Carpenter 20®,	
	Titanium, Others upon request	
<b>Process Connection</b>	1/4" FNPT, 1/2" FNPT, 3/4" FNPT, 1" FNPT	
Instrument Connectio	n ¼" FNPT, ½" FNPT	
Bolts	Galvanized steel (CS upper)	
	Stainless steel (SS upper)	
Gaskets	Standard: Buna N®	
	Also available: Viton®, PTFE, Grafoil®, others	AVA
	upon request	
Process Temperature	<sup>1</sup> -4°F to 212°F (-20°C to 100°C)	<ul> <li>Cla</li> </ul>



#### **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
- Clean-out ring (available on clamped designs only)

\*Lead times/minimums may apply

ł	— A ——
B	
	fuur an

WITH CLEAN-OUT RING

### WITH FLUSHING CONNECTION

Diaphragm Seal	Unit	Α	В
Standard	ln.	4.00"	1.50"
	mm	100	38
With Flushing Connection	ln.	4.00"	1.75"
	mm	100	45
With Clean- out Ring	ln.	4.00"	2.13"
	mm	100	54

Notes: 1. Process Temperature Rating can vary based on materials of construction, system fill fluid, gaskets and pressure gauge selection.

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**STANDARD** 

### THREADED HIGH PRESSURE DIAPHRAGM SEAL



### Threaded high pressure diaphragm seal rated up to 10,000 psi Heavy duty bolted construction

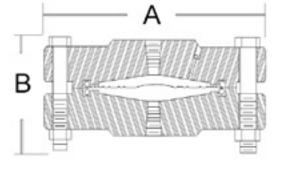
#### **SPECIFICATIONS**

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	Pressures from 2500 to 10,000 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 (lined), Carpenter 20®,	
	Titanium, Others upon request	
<b>Process Connection</b>	¼" FNPT, ½" FNPT, ¾" FNPT, 1" FNPT	
Instrument Connectio	<b>n</b> ¼" FNPT, ½" FNPT	
Bolts	Galvanized steel (CS upper)	
	Stainless steel (SS upper)	
Gaskets	Standard: Buna N®	1
	Also available: Viton®, PTFE, Grafoil®, others	
	upon request	
Process Temperature	-4°F to 212°F (-20°C to 100°C)	-



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

- 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

### THREADED HIGH PRESSURE

Diaphragm Seal	Unit	Α	В
High Pressure	ln.	4"	2 ¼"
	mm	101.6	57.2

Notes: 1. Process Temperature Rating can vary based on materials of construction, system fill fluid, gaskets and pressure gauge selection.



### 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**

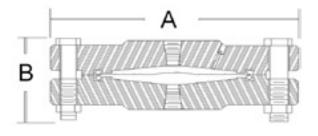
Design	Standard: Diaphragm welded to upper housing Also available: Clamped
Instruments	Gauges, pressure switches, transmitters
Appropriate Dial Size	2 ½" (63 mm) through 6" (152.4 mm)
Pressures	Vacuum or pressures up to 100 psi
Maximum Pressure	1,000 psi
Upper Housing	Chrome plated carbon steel or stainless 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	
Instrument Connectio	n ¼" FNPT, ½" 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

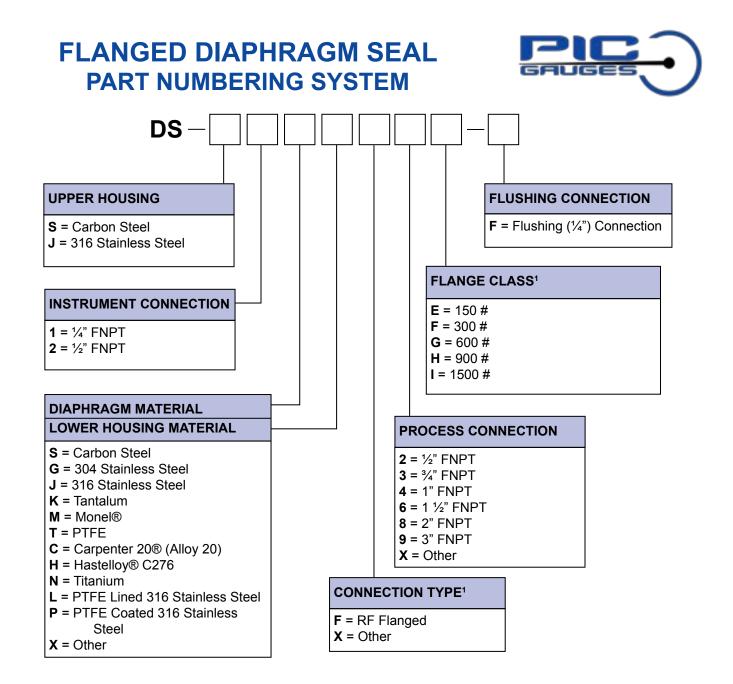
\*Lead times/minimums may apply



LOW PRESSURE

Diaphragm Seal	Unit	Α	в
Standard	ln.	5"	1 1⁄2"
Stanuaru	mm	127	38

Notes 1. Process Temperature Rating can vary based on materials of construction, system fill fluid, gaskets and pressure gauge selection.



#### EXAMPLE: "DS-J2JJF2F"<sup>2</sup>

- **DS** = Diaphragm Seal
- **J** = 316 Stainless Steel Upper Housing
- $2 = \frac{1}{2}$ " FNPT Instrument Connection
- J = 316 Stainless Steel Diaphragm
- J = 316 Stainless Steel Lower Housing
- **F** = RF Flanged Connection
- $2 = \frac{1}{2}$ " Process Connection
- **F** = 300 #



Notes:

- 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.

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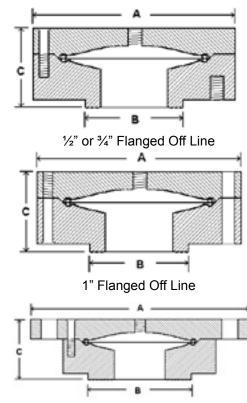
FLANGED DIAPHRAGM SEAL

### RF (Raised Face) flanged diaphragm seal

#### **SPECIFICATIONS**

Design	Standard: Diaphragm welded to uppper housin Also available: Clamped
Instruments	Gauges, pressure switches, transmitters
Appropriate Dial Size	2 <sup>1</sup> / <sub>2</sub> " (63 mm) through 6" (152.4 mm)
Pressures	See ASME B16.5 flange ratings
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	Available sizes see chart below
Instrument Connectio	<b>n</b> ¼" FNPT, ½" FNPT
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)

ocess remperature



1 1/2" or Larger Flanged Off Line



#### **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

Process Connection	Flange Rating Class	Α	В	с
1⁄2"	150 #	3 1⁄2"	1 3/8"	1 ¾"
3/4"	150 #	3 ¾"	1 11/16"	1 ¾"
1/2"	300 #	3 ¾"	1 3/8"	1 ¾"
3/4"	300 #	4 5/8"	1 11/16"	1 ¾"
1"	150 #	4 ¼"	1 3/8"	1 ¼"
I	300 #	4 7/8"	1 9/16"	1 1⁄3"
600, 900, 1500 # dimensions available upon request.				
1 <sup>1</sup> ⁄ <sub>2</sub> " or larger	All dimensions according to size and rating of flange.			

#### \*Lead times/minimums may apply

Notes: 1. Process Temperature Rating can vary based on materials of construction, system fill fluid, gaskets and pressure gauge selection.

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## **DS-M3A SANITARY** DIAPHRAGM SEALS



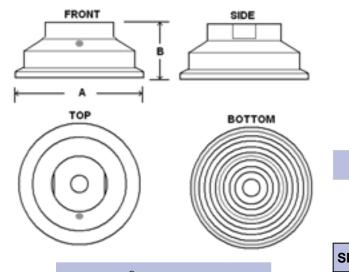
Sanitary Tri-Clamp<sup>®</sup> style diaphragm seal for applications that require sanitary conditions, including food and beverage applications

#### **SPECIFICATIONS**

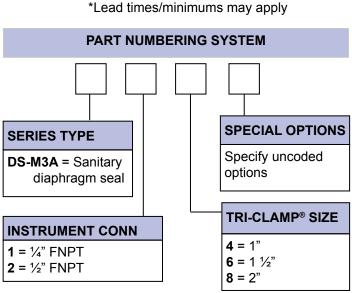
Design Instruments	Upper housing and separating diaphragm Gauges, pressure switches, transmitters
Appropriate Dial Size	1 ½" (38 mm) through 6" (152.4 mm)
Operating Temp <sup>1</sup>	-10° F to 572° F (-23° C to 300° C)
Upper Housing	316 stainless steel
Diaphragm	Standard: 316L stainless steel
Sanitary Clamp Size Pressure Rating	Other materials available upon request <sup>1</sup> / <sub>2</sub> " - 4" 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"
I	mm	51	32
1 1⁄2"	ln.	2.00"	1.26"
1 /2	mm	51	32
2"	ln.	2.50"	1.26"
2	mm	63	32



**AVAILABLE OPTIONS\*** 

 Material analysis certificate <sup>1</sup>/<sub>2</sub>" and <sup>3</sup>/<sub>4</sub>" Tri-Clamp<sup>®</sup> dimensions

available upon request

Without fill-port

Notes: 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.

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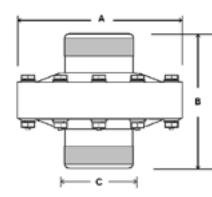


### **PVC DIAPHRAGM SEAL**

PVC diaphragm seal for applications that are corrosive to metallic components Designed for pressures up to 200 psi

#### **SPECIFICATIONS**

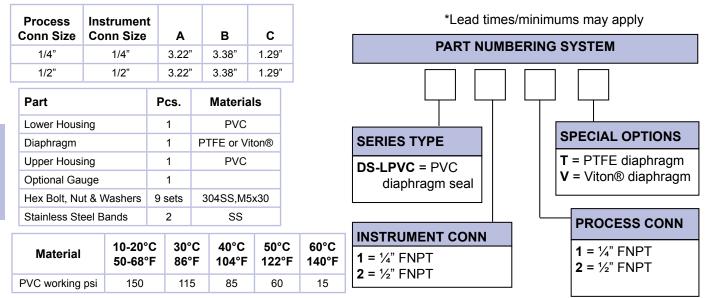
Design	PVC body with stainless steel bands to prevent splitting when installing
Instruments	Gauges, pressure switches, transmitters
Appropriate Dial Size	2 ½" (63 mm) through 6" (152.4 mm)
Pressures	Vacuum up to 200 psi
Upper Housing	PVC
Diaphragm	PTFE or Viton®
Lower Housing	PVC
<b>Process Connection</b>	¼" FNPT, ½" FNPT
Instrument Connectio	n ¼" FNPT, ½" FNPT
Bolts	304 Stainless Steel
Gaskets	Integral to diaphragm (PTFE)





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

- Oxygen cleaned
- Material analysis certificate

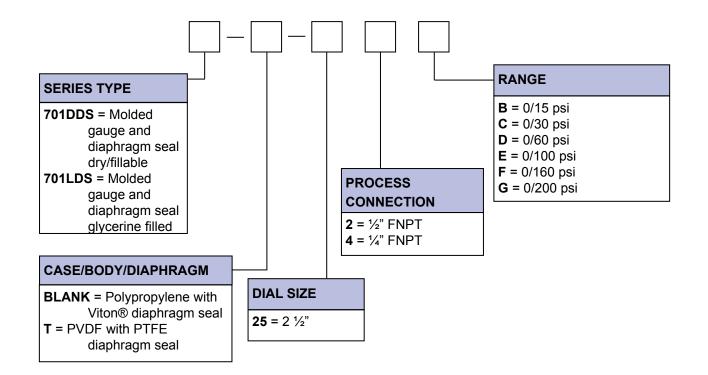


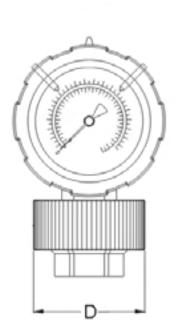
Temperature Ranges - PVC: -10 to 60°C (14 to 140°F)

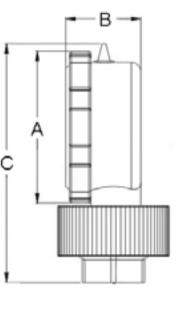
NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

### 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 1⁄2"	ln.	3.16"	1.61"	5.35"	2.32"
Ζ 72	mm	80.5	41	136	59

NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.



### 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) Injection molded polypropylene, dry yet fillable Case Wetted Parts: Diaphragm Viton® Lower Housing Polypropylene Injection molded polypropylene, removable Bezel Lens Polycarbonate Pointer Black aluminum Scale Standard: psi/BAR x 100 = kPa 0/15 to 0/200 psi Pressure 2-1-2% of span, ASME B40.1 Grade A Accuracy -4° F to 140° F (-20° C to 60° C) Maximum Temp 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 176

\*Lead times/minimums may apply

SPECIFY MOUNT FLUID WHEN ORDERING

#### SPECIFICATIONS - 701DDS-T PVDF CASE/PTFE SEAL

Dial Size Case Wetted Parts:	2 ½" (63 mm) Injection molded PVDF, dry yet fillable
Diaphragm	PTFE
Lower Housing	g PVDF
Bezel	Injection molded PVDF, 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)	316 stainless steel
<b>Process Connection</b>	¼" FNPT or ½" FNPT
System Fill Fluid	Based on customer requirements
Design meets or exceed	s ASME B40.100 pressure gauge standard.

SPECIFY MOUNT FLUID WHEN ORDERING



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

- Liquid Fill Options, see page 176

\*Lead times/minimums may apply

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## 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<sup>®</sup> and Halocarbon<sup>®</sup>. 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 AT TEMPE		VISCOSITY AT TEMPE	-
Glycerine 99.5%	$30^\circ$ to $300^\circ$ 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 <sup>®1</sup>	-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.

			500 7 00 500 7 00 450 200 450 250 350 300
STANDARD BIMETAL 90° back angle type available in 2", 3" and 5" dials	BIMETAL ADJUSTABLE ANGLE Every angle thermometer available in 3" and 5" dials	VARIOUS BIMETALS Pocket style, clip style, hot water thermometer	SURFACE Dual magnet mount surface thermometer or spring held for pipe mount
<b>BARBEQUE</b> 3" dial BBQ pit thermometer reads 50-550° F	THERMOWELLS Various sizes, connections and materials	INDUSTRIAL TRIDICATORS Indicate both temperature and pressure	HEAVY DUTY TRIDICATORS Indicate both temperature and pressure
		A or C Borner Daniel for Daniel f	A ALA NATATATATATATATATATATATATATATATATATATA
REMOTE DIAL THERMOMETER Vapor & gas actuated for direct, surface or panel mounting	<b>9" SCALE</b> Adjustable angle available in a variety of stem lengths	SOLAR DIGITAL Powered with bi-directional solar panels	<b>5" SCALE</b> Red liquid filled (no mercury) white painted steel scale

## **BIMETAL THERMOMETERS**



#### Considerations when selecting bimetal thermometers

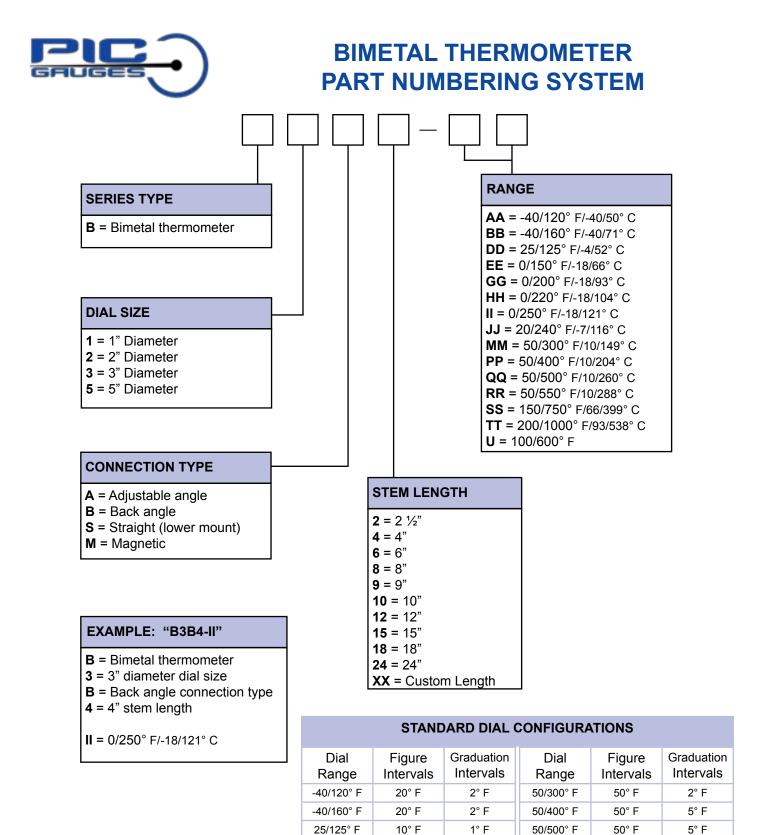
A thermometer is an instrument manufactured to measure and display the temperature of a specific application or process medium. A bimetal thermometer uses a bimetallic sensing element, which reacts measurably and consistently with temperature change.

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.



NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

0/150° F

0/200° F

0/220° F

0/250° F

20/240° F

20° F

20° F

20° F

20° F

20° F

2° F

2° F

2° F

2° F

2° F

50° F

100° F

100° F

50° F

5° F

10° F

10° F

5° F

50/550° F

150/750° F

200/1000° F

100/600° F

## **BIMETAL THERMOMETERS FIXED BACK MOUNT (90°)**

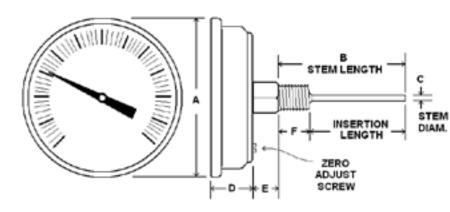


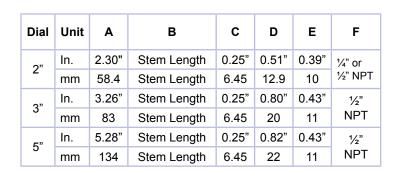
### Dial type bimetal thermometer

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.	







#### **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
2"	0.20 lbs (0.10 kg)	upon request
3"	0.65 lbs (0.28 kg)	upon request
5"	1.15 lbs (0.52 kg)	upon request

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.



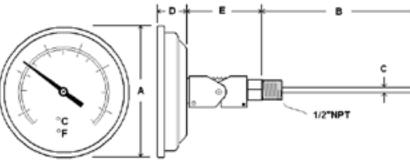
## **BIMETAL THERMOMETERS ADJUSTABLE ANGLE TYPE**

### 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
	1⁄2" NPT on 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 the



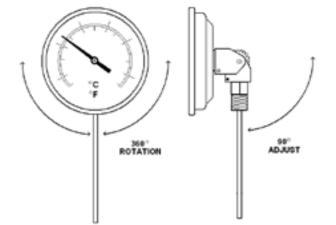
Grade A, ASME B40	).3	
on 3" & 5" dial ermometer standard	Ι.	
+ в -		AVA
	c	<ul> <li>Cert</li> <li>Cus</li> <li>Spe</li> <li>Since</li> </ul>



#### **ILABLE OPTIONS\***

- rtificate of Accuracy, NIST traceable
- stom Dial
- ecial Connection Size
- Single Scale
- Special Ranges
- Custom Lens Material

Dial	Unit	Α	В	С	D	Е	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



\*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 (0.60 kg)	upon request

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.

156 Thermometers & Thermowells

9

## **MISCELLANEOUS BIMETALS**



### Miscellaneous bimetals designed for specific applications

#### **SPECIFICATIONS - BARBEQUE GRILL THERMOMETER (BBQ-1)**

Dial Size	3" (76 mm)
	Anti-parallax dial
Case	All stainless steel construction
Stem Length	2 <sup>1</sup> / <sub>2</sub> ", 316 stainless welded at connection
Connection	½" NPT
Lens	Heavy duty glass
Pointer	Black aluminum
Scale	Standard: single scale F
Temperature Range	50/550° F
Accuracy	1% full scale
External Adjustment	Zero reset screw on case back
Design meets or exceeds ASME B40.3 thermometer standard.	

0.AUST ⊢¤ ÷ Part Number Dial Unit С D Е Α в 3.28" 2.5" 0.25" 0.82" 0.43" In. 3" BBQ-1 NPT mm 83 63 7 21 11



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

F

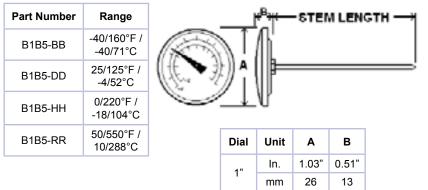
1/2"

 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	5"	
Stem Construction	1/8" diameter pointed plain stem (non-threaded)	
Lens	Magnifying plastic	
Pointer	Red aluminum	
Scale	Standard: dual scale F & C	
Temperature Range	-40/160° to 50/550° F & C	
Accuracy	+/- 1.5% full scale	
Design meets or exceeds ASME B40.3 thermometer standard.		





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

- Other stem lengths available upon request
- · 2" dial size available upon request
- Digital version available

9

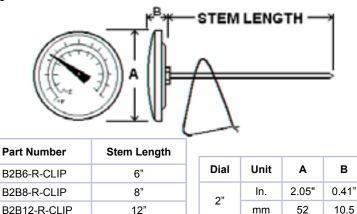


### **MISCELLANEOUS BIMETALS**

### 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.





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

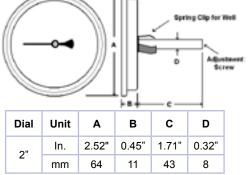
Other stem lengths available
 upon request

\*Lead times/minimums may apply

#### SPECIFICATIONS - HOT WATER THERMOMETER (B2B1-K-XX)

Dial Size Case	2 ½" (63 mm) Steel	/	
Stem Length	2" with Copper alloy thermowell or NPT		
Bezel	Stainless steel	Part Numbers	
Lens	Plastic	B2B1-K-SW = Solder well	
Pointer	Black aluminum	B2B1-K = ½" NPT	
Scale	Standard: dual scale F & C		
Temperature Range	32/248° F & C		
Accuracy	+/- 2% full scale		
Thermowell (included	) <sup>1</sup> / <sub>2</sub> " NPT Copper alloy thread	led or solder type	

Design meets or exceeds ASME B40.3 thermometer standard.





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

- Other stem lengths available
   upon request
- Other temperature ranges

## SURFACE MOUNT THERMOMETERS



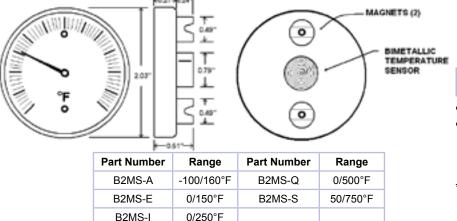
### Miscellaneous bimetals designed for specific applications

#### **SPECIFICATIONS - MAGNETIC THERMOMETER (B2MS)**

Dial Size	2" (50 mm)
Case	Black steel
Bezel	Black steel
Stem Length	Surface thermometer - no stem
Lens	Glass
Pointer	Black aluminum
Scale	Standard: single scale F
Temperature Range	-100/160° to 50/750° F
Accuracy	+/-3%

Design meets or exceeds ASME B40.3 thermometer standard.





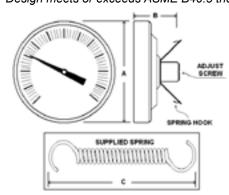
**AVAILABLE OPTIONS\*** 

- Custom dials
- Custom temperature ranges

\*Lead times/minimums may apply

#### **SPECIFICATIONS - SURFACE THERMOMETER (B2SS)**

Dial Size	2 ½" (63 mm)
Case	Stainless steel case
Stem Length	Surface thermometer - no stem
	Clamp on design with spring
Lens	Glass
Pointer	Black aluminum
Scale	Standard: single scale F
Temperature Range	-50/250° to 0/250° F
Accuracy	+/-3%
External Adjustment	Zero reset screw on stem
Design meets or exceeds	ASME B40.3 thermometer standard.



Dia	I	Unit	Α	в	С
2 1/2	"	In.	2.50"	1.23"	2.74"
Z 72		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

<sup>9</sup> 



### **THERMOWELLS**

PIC Gauges offers a complete line of thermowells, manufacturing all sizes, connections and materials, in addition to stocking the most commonly used types.



	Carbon Steel
:	304 Stainless Steel
:	316 Stainless Steel
	Monel®
	Hastelloy® C276
	Titanium
	Tantalum
	Ceramic

MATERIALS Brass

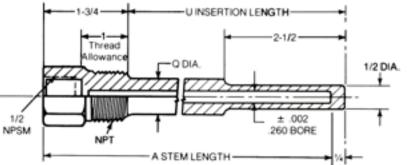
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\*Others available upon request.





# Standard part numbers for bimetal thermowells



Cap and chain available upon request.

	1/2" NPT INSTRUMENT X 1/2" NPT PROCESS						
A	U	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS		
2 1/2"	1 5/8"	TW-BR02-22S2	TW-CS02-22S2	TW-ST02-22S2	TW-SS02-22S2		
4"	2 1/2"	TW-BR04-22S2	TW-CS04-22S2	TW-ST04-22S2	TW-SS04-22S2		
6"	4 1/2"	TW-BR06-22S2	TW-CS06-22S2	TW-ST06-22S2	TW-SS06-22S2		
9"	7 1/2"	TW-BR09-22S2	TW-CS09-22S2	TW-ST09-22S2	TW-SS09-22S2		
12"	10 1/2"	TW-BR12-22S2	TW-CS12-22S2	TW-ST12-22S2	TW-SS12-22S2		

	1/2" NPT INSTRUMENT X 3/4" NPT PROCESS						
Α	U	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS		
2 1/2"	1 5/8"	TW-BR02-23S2	TW-CS02-23S2	TW-ST02-23S2	TW-SS02-23S2		
4"	2 1/2"	TW-BR04-23S2	TW-CS04-23S2	TW-ST04-23S2	TW-SS04-23S2		
6"	4 1/2"	TW-BR06-23S2	TW-CS06-23S2	TW-ST06-23S2	TW-SS06-23S2		
9"	7 1/2"	TW-BR09-23S2	TW-CS09-23S2	TW-ST09-23S2	TW-SS09-23S2		
12"	10 1/2"	TW-BR12-23S2	TW-CS12-23S2	TW-ST12-23S2	TW-SS12-23S2		
15"	13 1/2"	TW-BR15-23S2	TW-CS15-23S2	TW-ST15-23S2	TW-SS15-23S2		
18"	16 1/2"	TW-BR18-23S2	TW-CS18-23S2	TW-ST18-23S2	TW-SS18-23S2		
24"	22 1/2"	TW-BR24-23S2	TW-CS24-23S2	TW-ST24-23S2	TW-SS24-23S2		

	1/2" NPT INSTRUMENT X 1" NPT PROCESS						
Α	U	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS		
2 1/2"	1 5/8"	TW-BR02-24S2	TW-CS02-24S2	TW-ST02-24S2	TW-SS02-24S2		
4"	2 1/2"	TW-BR04-24S2	TW-CS04-24S2	TW-ST04-24S2	TW-SS04-24S2		
6"	4 1/2"	TW-BR06-24S2	TW-CS06-24S2	TW-ST06-24S2	TW-SS06-24S2		
9"	7 1/2"	TW-BR09-24S2	TW-CS09-24S2	TW-ST09-24S2	TW-SS09-24S2		
12"	10 1/2"	TW-BR12-24S2	TW-CS12-24S2	TW-ST12-24S2	TW-SS12-24S2		
15"	13 1/2"	TW-BR15-24S2	TW-CS15-24S2	TW-ST15-24S2	TW-SS15-24S2		
18"	16 1/2"	TW-BR18-24S2	TW-CS18-24S2	TW-ST18-24S2	TW-SS18-24S2		
24"	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° F.

NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability. Because of continuing improvements, specifications are subject to change without notice.

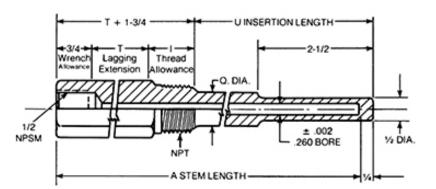
A Division of Engineered Specialty Products, Inc.



Part numbers for

lagging extensions

### THERMOWELLS



Cap and chain available upon request.

bimetal thermowells with

	1/2" NPT INSTRUMENT X 1/2" NPT PROCESS						
Α	U	т	BRASS*	CARBON STEEL	<b>304 STAINLESS</b>	316 STAINLESS	
4"	1 5/8"	1"	TW-BR04-22L2	TW-CS04-22L2	TW-ST04-22L2	TW-SS04-22L2	
6"	2 1⁄2"	2"	TW-BR06-22L2	TW-CS06-22L2	TW-ST06-22L2	TW-SS06-22L2	
9"	4 ½"	3"	TW-BR09-22L2	TW-CS09-22L2	TW-ST09-22L2	TW-SS09-22L2	
12"	7 1⁄2"	3"	TW-BR12-22L2	TW-CS12-22L2	TW-ST12-22L2	TW-SS12-22L2	

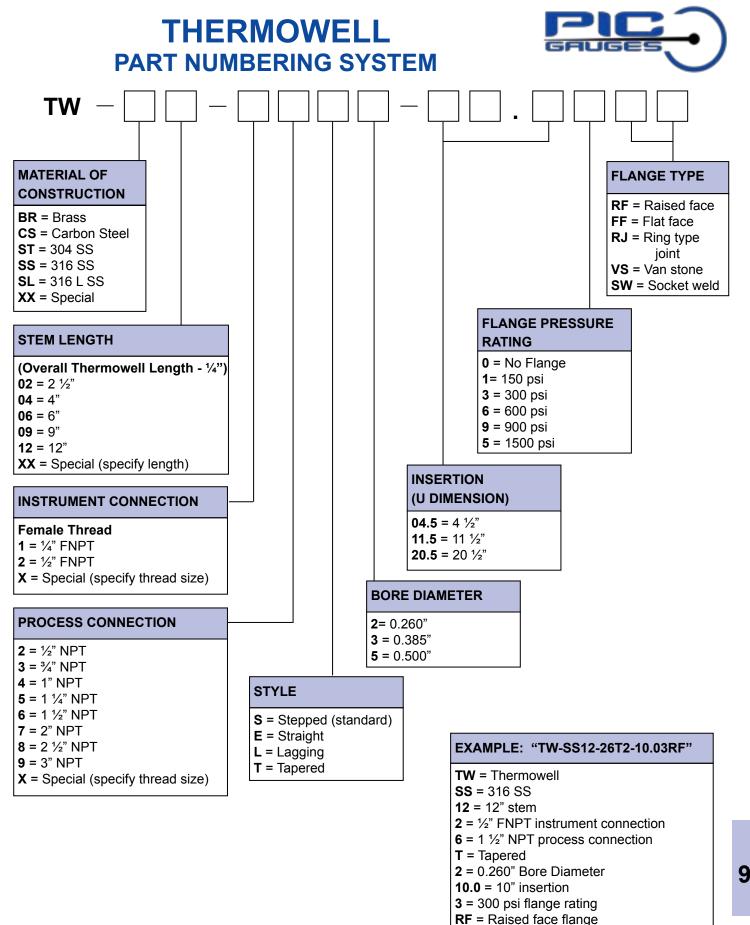
1/2" NPT INSTRUMENT X 3/4" NPT PROCESS								
Α	U	т	BRASS*	CARBON STEEL	304 STAINLESS	316 STAINLESS		
4"	1 5/8"	1"	TW-BR04-23L2	TW-CS04-23L2	TW-ST04-23L2	TW-SS04-23L2		
6"	2 1⁄2"	2"	TW-BR06-23L2	TW-CS06-23L2	TW-ST06-23L2	TW-SS06-23L2		
9"	4 ½"	3"	TW-BR09-23L2	TW-CS09-23L2	TW-ST09-23L2	TW-SS09-23L2		
12"	7 1⁄2"	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		

Α	1/2" NPT INSTRUMENT X 1" NPT PROCESS A U T BRASS* CARBON STEEL 304 STAINLESS 316 STAINLESS									
4"	1 5/8"	1"	TW-BR04-24L2	TW-CS04-24L2	TW-ST04-24L2	TW-SS04-24L2				
4	0/01	1	IW-BR04-24L2	100-CS04-24L2	100-5104-24L2	1 W-3304-24L2				
6"	2 1⁄2"	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 1⁄2"	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				

9

\*NOTE: Brass wells are not recommended for installations involving temperatures over 400° F.

NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.



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	<b>70</b> °	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	6400	6200	6100	5100	2500	
Monel®	6500	6000	5400	5300	5200	1500	-	

	MAXIMUM FLUID VELOCITY - FEET PER SECOND								
		Insertion Length - "U"							
Well Type	Material	<b>2</b> ½"	4 <sup>1</sup> / <sub>2</sub> "	7 1⁄2"	10 ½"	13 ½"	16 ½"	<b>19</b> 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)					
1/2"	Carbon	290	105	38	19.4	11.8	7.8	5.7	4.2
Standard	Steel	(106)	(59)	(36.3)					
and	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	22.8	13.8	9.3	6.7	4.9
Standard		(106)	(71.2)	(42.7)					
and	304SS/ 316SS	300	128	46.4	23.6	14.3	9.6	6.9	5.1
Lagging		(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 Case Capillary Length Lens Pointer Scale Temperature Range Accuracy Box Quantity Bulb

3 1⁄2" (88.9 mm) Stainless steel 5 feet Polycarbonate Black aluminum Standard: dual scale °F & °C Custom, Stock - see chart below 1% full scale 30 pieces 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 Case Capillary Length Lens Pointer Scale Temperature Range Accuracy Bulb 4 <sup>1</sup>⁄<sub>2</sub>" (125 mm), 6" (150 mm) Phenolic Custom Plastic Black aluminum, slotted adjustable Standard: dual scale °F & °C Custom 1% full scale 6" stainless steel with <sup>1</sup>⁄<sub>2</sub>" 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



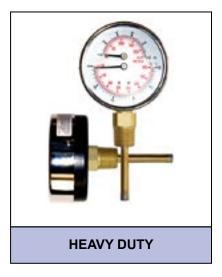


### Measure pressure and temperature in one instrument Available in various sizes and configurations









## 2<sup>1</sup>/<sub>2</sub>" TRIDICATORS



#### Dual reading pressure and temperature instrument High quality, economical design for use in commercial and industrial boiler applications

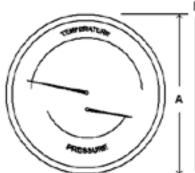
#### SPECIFICATIONS

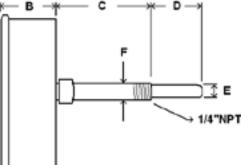
Dial Case Stem Lens Pointer Connection Scale

Temperature Range Accuracy Ambient Temp\*

2 <sup>1</sup>/<sub>2</sub>" (63 mm) Black painted steel, dry non-fillable 1.75", 2.95" or 3.63", copper alloy Plastic with red indicator Black aluminum Center back mount <sup>1</sup>/<sub>4</sub>" NPT, copper alloy Pressure: dual scale psi & ft of water column Temperature: dual scale psi & ft of water column Temperature: dual scale F & C 70/320° F & 20/160° C 3-2-3% full scale per Grade B, ASME B40.1 -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
- Stainless Steel Wetted Parts

Dial	Unit	Stem Length	Α	в	С	D	Е	F
2 1/2"	ln.	1.75"	2.64"	1.02"	0.77"	0.96"	0.31"	0.54"
2 /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"
2 /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"
2 /2	mm	92.2	67	26	51	41	8	13.6

PART NUMBER			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.						

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.

\*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

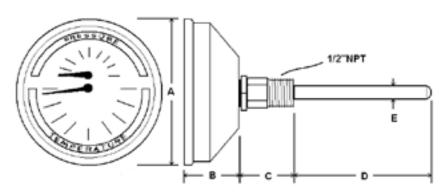
### **3" TRIDICATORS**



#### Dual reading pressure and temperature instrument High quality, economical design for use in commercial and industrial boiler applications

#### **SPECIFICATIONS**

Dial Case Stem Lens Pointer Connection	3 ¼" (83 mm) Black painted steel, dry non-fillable 3", copper alloy Plastic with red indicator Black aluminum Center back mount
Scale Temperature Range Accuracy Ambient Temp*	<ul> <li>½" NPT, copper alloy</li> <li>Pressure: dual scale psi &amp; ft of water column</li> <li>Temperature: dual scale °F &amp; °C</li> <li>70/320° F &amp; 20/160° C</li> <li>3-2-3% full scale per Grade B, ASME B40.1</li> <li>-30° F to 180° F</li> </ul>



Dial	Unit	Α	В	С	D	Е
3 1/4"	ln.	3.31"	1.23"	1.36"	2.23"	0.36"
5 /4	mm	84	31	34.4	57	9.3

PART NUMBER	DIAL	PRESSURE		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.



#### **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

\*Lead times may apply

#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Dial Size	Est. Unit Weight	Box Qty
3 ¼"	0.55 lbs (0.26 kg)	50

9

## **4" INDUSTRIAL TRIDICATORS**



#### Dual reading pressure and temperature instrument High quality, economical design for use in commercial and industrial boiler applications

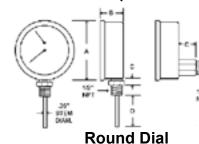
#### SPECIFICATIONS

Dial Case Stem Lens

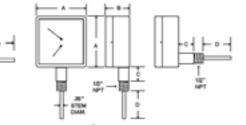
Pointer Connection

Scale

Temperature Range Accuracy Ambient Temp\*



4" (101 mm) Painted steel, dry non-fillable 2", copper alloy Round: plastic Square: glass Black aluminum Lower mount, lower back mount 1⁄2" NPT, copper alloy Pressure: dual scale psi & kPa Temperature: dual scale or & °C 70/320° F & 20/160° C 1% full scale per Grade 1A, ASME B40.1 -30° F to 180° F



Square Dial

Dial	Unit	Α	В	С	D
Daund	ln.	4.23"	1.45"	0.51"	2.12"
Round	mm	107	37	13	54
Caucro	ln.	3.65"	1.47"	0.83"	2.00"
Square	mm	93	37	21	51

PART NUMBER	PRESSURE	TEMPERATURE	CONNECTION	DIAL
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

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.



#### **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	Box Qty
		Weight	
	Round	0.95 lbs	50
٦		(0.40 kg)	
	Square	0.95 lbs	50
		(0.44 kg)	

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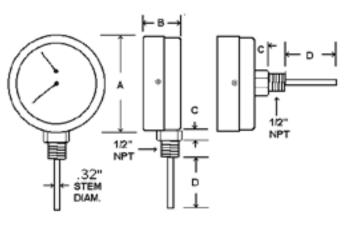
**3" HEAVY DUTY TRIDICATORS** 

### 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 mount
	1/2" 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"
3	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	PR	ESSURE	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°

<sup>9</sup> 

\*NOTE: High or low ambient temperatures may have adverse effect on accuracy. Consult PIC Gauges for instrument selection.

## **INDUSTRIAL** THERMOMETER

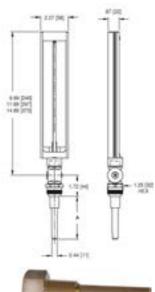


### Blue spirit filled adjustable angle thermometer for industrial applications

#### **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
Stem	3 ½", 6", 9", 12", copper alloy
Lens	Glass
Indicator	Blue spirit
Connection	Lower mount, adjustable angle
	1 ¼" -18" NEF thread
Scale	Dual scale °F & °C
Temperature Range	0-120° F, 30-240° F, Others available from stock
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	
1	mm	249	62	43	Stem	
Scale	Unit	Е	F	G		
7"	In	0.44"	1.06"	1.25"		
1	mm	11	27	32		
Scale	Unit	Α	в	с	D	
	Unit In.	<b>A</b> 11.9"	<b>B</b> 2.41"	<b>C</b> 1.67"	D Stem	
Scale 9"						
	In.	11.9"	2.41"	1.67"	Stem	
9" Scale	In. mm	11.9" 301	2.41" 62	1.67" 43	Stem	
9"	In. mm Unit	11.9" 301 E	2.41" 62 <b>F</b>	1.67" 43 <b>G</b>	Stem	



	INDUSTRIAL THERMOWELL PART NUMBERS						
Stem	Process Connection	Туре	Brass	304 SS	316 SS		
3 1/2"	¾" NPT	Standard	TWB-35	T6E3D2	T4E3D2		
5 /2	/4 INF I	Lagging	TWB-35-LAG	T6E3D2B	T4E3D2B		
6"	3⁄4" NPT	Standard	T1M3D2	T6M3D2	T4M3D2		
0	74 INP I	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**

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

#### **Optional Cap and Lanyard**



### Digital adjustable angle thermometer for industrial applications

#### **SPECIFICATIONS**

Case Stem Illuminance

Display

Sensor Connection

Scale Temperature Range

Accuracy Ambient Temp Ambient Temp Error Time Update Resolution Recalibration Maximum Humidity LCD black character, 1/2" high with gray background ABS black plastic 3 1/2" or 6", aluminum Bi-directional solar collectors, 35 lux Dual solar panels provide better light pick up in low light conditions Glass passivated thermistor Lower mount, swivel & adjustable angle 1 ¼" - 18 UNEF Copper alloy jam nut Dual scale °F & °C -58/302° F or -50/150° C Switchable between °F and °C Greater value of 1° or 1% of reading -30° F to 140° F None Six times per minute 0.10° between -58/199.9° F (-50/93° C) Internal potentiometer 100%



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

- Select 3 <sup>1</sup>/<sub>2</sub>" or 6" stem
- Thermowells, see page 171
- Cap and Lanyard, see page 171



Stem	Part Number	Unit	Α	В	С	U
o 1/"	3 ½" AADHFC	ln.	3.20"	7.56"	5.75"	2.50"
3 72		mm	81.3	192	146	63.5
6"	AADLFC	ln.	3.20"	10.06"	8.25"	5.00"
	AADLFC	mm	81.3	255.5	209.6	127

\*Lead times/minimums may apply

#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Stem Length	Est. Unit Weight	Box Qty
3 1⁄2"	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

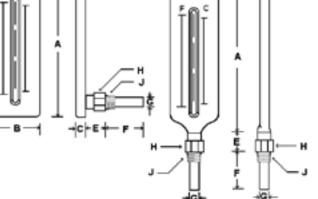
Scale Size

Stem Well Indicator Connection

Scale Temperature Range Accuracy 2.125", copper alloy Brass or steel - includes thermowell Red liquid filled - no mercury Lower mount, lower back mount 1⁄2" NPT Dual scale °F & °C 40/280° F & 15/135° C +/-1 scale division

5" (127 mm) white painted steel with

black markings



Туре	Unit	Α	в	с	Е
Dettem	ln.	7.75"	1.81"	0.38"	1"
Bottom	mm	197	46	9.7	146
Back	ln.	7.00"	1.81"	0.38"	0.88"
Dack	mm	177.8	46	9.7	209.6
Туре	Unit	F	G	н	J
	Unit In.	<b>F</b> 2.13"	<b>G</b> 0.47"	<b>H</b> 0.88"	J 1⁄2"
<b>Type</b> Bottom		-			-
	In.	2.13"	0.47"	0.88"	1/2"

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

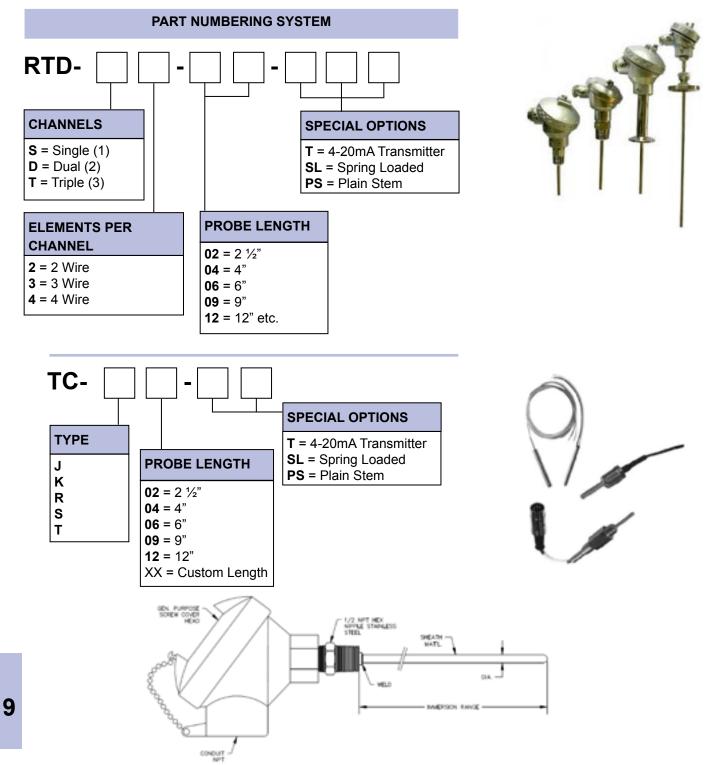
#### APPROXIMATE SHIPPING WEIGHTS/ BOX QUANTITIES

Part Number	Est. Unit Weight	Box Qty
162F	0.65 lbs (0.28 kg)	upon request
163F	0.70 lbs (0.32 kg)	upon request



### **RTD AND THERMOCOUPLE**

High quality electronic temperature measurement instruments Industrial, commercial, and custom process assemblies designed to meet the requirements of rigorous and severe applications



NOTE: Not all part numbers or options are available from stock. Consult PIC Gauges for availability.

## 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>	<ul> <li>Glycerine is the standard fill fluid for most liquid filled gauges due to its unique fluid properties: Clarity Viscosity Stability Cost Solubility Low Toxicity         <ul> <li>Additionally, glycerine can be mixed with water to obtain different temperature ratings <u>% Glycerine/Water</u> <u>90/10</u> <u>29.1° F</u> <u>70/30</u> <u>-38.1° F</u> <u>60/40</u> <u>-30.5° F</u> <u>50/50</u> <u>9.4° F</u> <u>40/60</u> <u>4.3° F</u> <u>30/70</u> <u>14.9° F</u> <u>10/90</u> <u>29.1° F</u> </li> </ul> </li> <li>When temperature extremes or chemical compatibility fall outside the range of glycerine, note the fill fluid considerations below and consult PIC Gauges for fluid selection.</li> </ul>			
FILL FLUID CONSIDERATIONS	TEMPERAT	URE RANGES		
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	While the temperature ra fluid varies, the ranges lis	URE RANGES ange for each individual fill sted below take into con- temperature permissible		
<ul> <li>Guidelines for determining an appropriate fill fluid include:</li> <li>Temperature <ul> <li>Low Temp Application: Use anti-freeze, low viscosity silicone oil or other comparable liquids</li> </ul> </li> </ul>	While the temperature ra fluid varies, the ranges lis sideration the <b>operating</b>	inge for each individual fill sted below take into con-		
<ul> <li>Guidelines for determining an appropriate fill fluid include:</li> <li>Temperature <ul> <li>Low Temp Application: Use anti-freeze, low viscosity silicone oil or other comparable liquids</li> <li>High Temp Application: Use high temp</li> </ul> </li> </ul>	While the temperature ra fluid varies, the ranges lis sideration the <b>operating</b> for gauges.	inge for each individual fill sted below take into con- <i>temperature permissible</i>		
<ul> <li>Guidelines for determining an appropriate fill fluid include:</li> <li>Temperature <ul> <li>Low Temp Application: Use anti-freeze, low viscosity silicone oil or other comparable liquids</li> <li>High Temp Application: Use high temp rated fluids such as Syltherm® 800 or high</li> </ul> </li> </ul>	While the temperature ra fluid varies, the ranges lis sideration the <b>operating</b> <b>for gauges</b> . Gauge Fill Fluid	inge for each individual fill sted below take into con- <i>temperature permissible</i> Operating Temp Range		
<ul> <li>Guidelines for determining an appropriate fill fluid include:</li> <li>Temperature <ul> <li>Low Temp Application: Use anti-freeze, low viscosity silicone oil or other comparable liquids</li> <li>High Temp Application: Use high temp</li> </ul> </li> </ul>	While the temperature ra fluid varies, the ranges lis sideration the <b>operating</b> <b>for gauges</b> . Gauge Fill Fluid Glycerine	Inge for each individual fill sted below take into con- temperature permissible Operating Temp Range +30° F to 160° F		
<ul> <li>Guidelines for determining an appropriate fill fluid include:</li> <li>Temperature <ul> <li>Low Temp Application: Use anti-freeze, low viscosity silicone oil or other comparable liquids</li> <li>High Temp Application: Use high temp rated fluids such as Syltherm® 800 or high viscosity silicone oil</li> <li>Infrequent but Severe Pressure Spikes: Use high viscosity fluid</li> </ul> </li> </ul>	While the temperature ra fluid varies, the ranges lis sideration the <b>operating</b> <b>for gauges</b> . Gauge Fill Fluid Glycerine	Inge for each individual fill sted below take into con- temperature permissible Operating Temp Range +30° F to 160° F		
<ul> <li>Guidelines for determining an appropriate fill fluid include:</li> <li>Temperature <ul> <li>Low Temp Application: Use anti-freeze, low</li> <li>viscosity silicone oil or other comparable</li> <li>liquids</li> <li>High Temp Application: Use high temp</li> <li>rated fluids such as Syltherm® 800 or high</li> <li>viscosity silicone oil</li> </ul> </li> <li>Infrequent but Severe Pressure Spikes: Use high viscosity fluid</li> <li>Gauges with Electrical Contacts: Use insula-</li> </ul>	While the temperature ra fluid varies, the ranges lis sideration the <b>operating</b> <b>for gauges</b> . Gauge Fill Fluid Glycerine 99.5% Food Grade	Ange for each individual fill sted below take into con- temperature permissible Operating Temp Range +30° F to 160° F -1° C to 71° C		
<ul> <li>Guidelines for determining an appropriate fill fluid include:</li> <li>Temperature <ul> <li>Low Temp Application: Use anti-freeze, low</li> <li>viscosity silicone oil or other comparable</li> <li>liquids</li> <li>High Temp Application: Use high temp</li> <li>rated fluids such as Syltherm® 800 or high</li> <li>viscosity silicone oil</li> </ul> </li> <li>Infrequent but Severe Pressure Spikes: Use high viscosity fluid</li> <li>Gauges with Electrical Contacts: Use insulation oils</li> </ul>	While the temperature ra fluid varies, the ranges lis sideration the <b>operating</b> <b>for gauges</b> . Gauge Fill Fluid Glycerine 99.5% Food Grade Silicone DC 200 1000 cSt	Operating Temp Range         +30° F to 160° F         -1° C to 71° C         -40° F to 160° F         -40° C to 71° C		
<ul> <li>Guidelines for determining an appropriate fill fluid include:</li> <li>Temperature <ul> <li>Low Temp Application: Use anti-freeze, low</li> <li>viscosity silicone oil or other comparable</li> <li>liquids</li> <li>High Temp Application: Use high temp</li> <li>rated fluids such as Syltherm® 800 or high</li> <li>viscosity silicone oil</li> </ul> </li> <li>Infrequent but Severe Pressure Spikes: Use high viscosity fluid</li> <li>Gauges with Electrical Contacts: Use insulation oils</li> <li>Chemical Compatibility: Select fill fluid that will</li> </ul>	While the temperature ra fluid varies, the ranges lis sideration the <b>operating</b> <b>for gauges</b> . Gauge Fill Fluid Glycerine 99.5% Food Grade Silicone	operating Temp Range         +30° F to 160° F         -1° C to 71° C         -40° F to 160° F         -40° F to 160° F		
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## 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. <u>IMPORTANT NOTE:</u> When venting filled gauges, always install in the upright position to prevent leaks.



**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 nt of span) (excludii	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	kPa	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	-	0.1		-
kPa	0.14504	0.00987	0.295	4.019	2.321	102.07	10.207	10	1,000	7.05	0.75	0.0102	-	0.01	0.001		
Kg/ cm²	14.22	0.968	28.96	394.1	227.6	100,010	1,001	980.7	98,067	735.6	73.56	+	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	٦	0.0136	1.333	0.01333	0.00133		.0
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	-	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	۲	0.98	86	0.735	0.0735	0.001	0.098	0.00098	0.0001	Low Pressure	
mm wc	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 P	
Oz/in²	0.0625	0.00425	0.1273	1.732	1	43.986	4.40	4.31	431	3.232	0.323	0.0044	0.431	0.00431	0.00043		
In.wc	0.0361	0.00246	0.0735	1	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	760	92	1.033	101.3	1.013	0.1013		
psi	٢	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	kPa	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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## PTS PRESSURE TRANSMITTER



	Wiring Data Information								
	DIN Connector PIN Function								
	Signal Output	Pin 1	Pin 3	Pin 4					
	mA	Supply V+	Output	N/A	N/A				
5	V	Supply V+	Common	Output	N/A				
	Cable Connector WIRE Function								
	Signal Output	RED	BLUE	YELLOW	BLACK				
	mA	Supply V+	Output	N/A	N/A				
	V	V Supply V+		Common	N/A				
		Packard Plug	PIN/WIRE Fu	unction					
	Signal Output	Signal Output A/BLACK		C/GREEN					
	mA	N/A	Supply V+	Output					
	V	Common	Supply V+	Output					

#### CE Approved MEMS Technology

The PTS pressure transmitters offer high quality, high stability, stainless steel compact design, ideal for the industrial environment. The transmitters are widely used in air compressors, air conditioning and refrigeration equipment, automotive and hydraulic control.

#### ELECTRICAL:

Output: 4 - 20 mA (2 wire) 0 - 5V, 0 - 10V, 0.5 - 4.5V, 1 - 5V (3 wire) Supply: 9 - 36 VDC (2 wire), 5 VDC 3 wire optional

OPERATING TEMPERATURE: -40° F to 212° F (-40°C to 100°C)

#### ACCURACY:

+/- 0.5% (Full Scale) - Standard +/- 0.25% (Full Scale) - Special Order Only

#### INSULATION:

>100m Ω@50V

PROTECTION:

IP 68 (cable or packard) IP 65 with DIN

**STORAGE TEMPERATURE:** -58°F to 257°F (-50°C to 125°C)

**RESPONSE TIME:** <10 milliseconds

MATERIAL: Stainless Steel Body

#### PRESSURE RANGE:

0 - 8700 psi (0 - 600 BAR) **COMPENSATION TEMPERATURE:** 14°F to 176°F (-10°C to 80°C)

OVERLOAD PRESSURE: 150% Full Scale

SENSING ELEMENT: Silicon Chip with 316 Stainless Steel Protection

#### **MEDIUM COMPATIBILITY:**

Corrosive medium compatible with 316 stainless steel

ORDERING INFORMATION								
PTS	-A	-3000	-P1	-C4				
Model	Туре	Pressure Range	Process Connection	Electrical Connection				
PTS	A: 4 - 20 mA (2 wire) B: 0 - 5V (3 wire) C: 0 - 10V(3 wire) D: 0.5 - 4.5V (3 wire)	Specify Pressure Range Required Manufactured to Order	P1 - 1/4 NPT P2 - 1/4 BSPP* P3 - 7/16X20 SAE MALE	C1 - Packard Plug C2 - M12-4 Pin C3 - Cable (Specify cable length - minimum 3 ft.)				
	E: 1 - 5V (3 wire)		P4 - 7/16X20 SAE FEMALE SCHRADER VALVE *Non Standard	C4 - DIN 43650C C5 - 1/2 NPT MALE Conduit Constult PIC Gauges for other Terminal Options				

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A Division of Engineered Specialty Products, Inc.

## **PSA/PSF** PRESSURE SWITCH





Model	Adj. Ra	ange	Avg. Different.		
WIDGei	psi	BAR	psi	BAR	
1	10-300	0.7-21	2-35	0.14-2.5	
2	125-600	8-41	20-60	1.38-4.1	
3	300-2500	21-172	100-320	7-22	
4	1000-6000	69-414	250-550	17-38	
5	3-20	0.2-1.4	2-5	0.13-0.4	
6	15-80	1.03-6	4-7	0.27-0.5	
7	40-135	2.7-9.3	7-10	0.5-0.7	

#### ELECTRICAL:

3 AMP - 12/24 VDC - 125/250 VAC Gold contacts may be required for less than 12 VDC and 20 milliamp 5 AMP Optional

#### SWITCH TYPE:

Snap Action

#### **TEMPERATURE RANGE:**

Buna-N: 15° to +230°F (-10° to 110° C) EPDM: -10° to +250° F (-23° to 121° C) KAPTON®: -40° to+230° F (-40° to 110° C) VITON®: 0° to 250° F (-18° to 121° C) (® Registered trademark of Dupont)

#### **PROTECTION:**

Exposed Terminal - IP00 DIN HC - IP65 Flying Leads & Deutsch Intergral - IP69

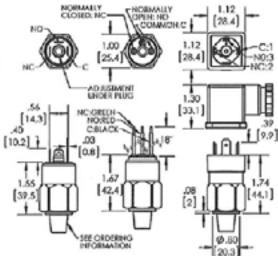
#### **REPEATABILITY:**

+/- 2% of full set point range at 70°F (20°C)

#### WETTED MATERIAL:

Diaphragm: Buna-N (Standard) (optional EPDM, KAPTON®, and Viton®) Housing: Models 1-4 - Zinc Plated Steel (Optional 316 SS) Models 5-7 - Brass (Optional Electroless Nickel Plated Steel)

#### ORDERING INFORMATION



Color coded top cap for identification of the switch circuit. A - RED, SPST/NO B - GREEN, SPST/NC C - BLACK, SPDT

> CE Approved RoHS Compliant



MECHANICAL LIFE: 1,000,000 cycles

#### MAX OVERPRESSURE:

Models 1-4: 9000 PSI (600 BAR) Models 5-7: 350 PSI (24 BAR)

#### WEIGHT:

Models 1-4: 0.2 lbs (0.09 kg) Models 5-7: 0.15 lbs (0.07 kg)

#### ADJUSTMENT:

Use 5/64" Allen Key

PS(X)	-*2	-*R	-4M	-C	-H	-*1
Model	Set Point	Direction	Port Size	Circuit	Terminal	Options
PSA - Field Adjust- able PSF - Factory Set	See above adjustment ranges *Model PSF Set Point required	R = psi Rising F = psi Falling BR = BAR Ris- ing BF = BAR Fall- ing *Omit for PSA	2M - 1/8 NPT 4M - 1/4 NPT 2G - 1/8 BSPP 4G - 1/4 BSPP 4S - 7/16X20 SAE MALE 4SW - 7/16X20 SAE SWIVEL 6S - 9/16X18 SAE MALE Metric and other sizes available by special order	A - SPST/NO B - SPST/NC C - SPDT	SP - 1/4"X1/32" Spade TS - 6-32 Terminal Screws FL - 18" Flying Leads WTF - Weatherpack Tower Female WSM - Weatherpack Shroud Female WSM - Weatherpack Shroud Male H - DIN 43650A Male Half Only HC - DIN 43650A Cable clamp HN - DIN 43650A 1/2 Conduit (female) DR - Deutsch Receptacle DP - Deutsch Plug DI - Deutsch Integral	* -Omit if standard 1-Viton® Diaphragm 2-EPDM Diaphragm 3-Kapton® Diaphragm 4-316SS Housing 5-Spiral Restrictor 6-Oxygen Cleaned 7-Gold Contacts 9-5AMP Rating 10-Electroless Nickel Plated Steel Housing 11A-DIN Light NO/NC 110v 11B-DIN Light NO/NC 12VDC 11C-DIN Light NO/NC 24VDC 11D-Indicating Light 12-WRAS Approved for mod- els 6-7 only

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## **NEW PRODUCTS & CUSTOM SOLUTIONS**

Gauge with Capillary & Diaphragm Seal - High Temp Application









Clamshell PackagingUPC CodesCustom DisplaysImage: Displayer of the state of the sta

Specialty Pressure TransmittersOEM Pressure SwitchesTemperature SwitchesImage: Comparison of the system of the system