

A4A Precision Pressure Gauge

FEATURES

- Mirror-band dial and knife-edge pointer to eliminate parallax error
- Ranges from Vacuum to 100,000 psi, gauge, absolute and compound pressure
- Solid-front protective case
- Optional temperature-compensated movement significantly reduces temperature error

TYPICAL USES

- Test Laboratories
- Precision Test and Measurement Validation
- Calibration Laboratories



A4A
6", 8½", 12" or 16" dial sizes

SPECIFICATIONS

Accuracy:	±0.1% of span (ASME B40.100 Grade 4A) (includes NIST Traceable Calibration Certification)
Ranges:	Gauge, Absolute and Compound ranges up to 100,000 psi
Sizes:	6", 8½", 12" or 16"
Process Connection:	¼ NPT Female – bottom ½ NPT Male or Female – back or bottom ¼ NPT Male or Female – back or bottom ⅝-18 UNF-2B Female for ¼ HP tubing MS33649-4 Female only – back or bottom MS33656-4 Male only – back or bottom MS-16142 Female only – back or bottom Mil-G-18997D Male only – back or bottom
Pointer:	Black painted aluminum knife edge tip
Pointer Travel:	350°: up to 30,000 psi 300°: 40,000 to 50,000 psi 270°: 60,000 thru 100,000 psi
Dial:	Zero adjustable aluminum, white background, black numerals with polished mirror band
Repeatability:	±0.02% of span
Hysteresis:	<0.1% of span Hysteresis may exceed +/- 0.1% of span for ranges equal to or greater than 75,000 psi. +/- 0.3% typical not to exceed 0.04% of span.
Sensitivity:	0.01% of span

KEY BENEFITS

- High accuracy for precision pressure measurement
- Many process connection options
- Dual engineering unit scale optional

WETTED COMPONENTS

Bourdon Tube	Process Connection
0/15 psi through 0/40 psi: Beryllium copper	303 SS
0/50 psi through 0/100,000 psi: 403 SS	

NON-WETTED COMPONENTS

Case	Enclosure Rating
Cast aluminum, solid front, blow out rear cover; Integral panel mounting flange	Case is not sealed, recommended for weather protected environment only

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ORDERING CODE	Example:	A4A-D	L	G	V	50000	-XC
Model Code/Dial Size							
A4A-D - 6" dial		A4AD					
A4A-E - 8 1/2" dial							
A4A-F - 12" dial							
A4A-G - 16" dial							
Process Connection Size/Location							
A - 1/8 Male NPT back							
B - 1/4 Male NPT back							
C - 1/8 Female NPT back							
D - 1/4 Female NPT back							
E - 9/16-18 Thread back							
F - MS-33656-4 Male back							
G - MS-33649-4 Female back							
J - 9/16-18 UNF3A Male back							
K - 1/8 Male NPT bottom							
L - 1/4 Male NPT bottom			L				
M - 1/8 Female NPT bottom							
N - 1/4 Female NPT bottom							
P - 9/16-18 Thread bottom							
R - MS-33656-4 Male bottom							
S - MS-33649-4 Female bottom							
T - 1/4-16 Thread Male bottom							
U - 9/16-18 UNF3A Male bottom							
X - MS-16142 9/16-18 Female bottom							
Z - MS-16142 9/16-18 Female back							
Pressure Type							
G - Gauge				G			
A - Absolute							
V - Vacuum							
C - Compound							
Tube Material							
J - Berillium copper (up to 40 psi)							
V - 403 SS (50 psi and greater)					V		
Pressure Range							
15 - 15 psi							
20 - 20 psi							
25 - 25 psi							
30 - 30 psi							
40 - 40 psi							
50 - 50 psi							
60 - 60 psi							
75 - 75 psi							
100 - 100 psi							
150 - 150 psi							
200 - 200 psi							
250 - 250 psi							
300 - 300 psi							
400 - 400 psi							
500 - 500 psi							
600 - 600 psi							
750 - 750 psi							
1000 - 1,000 psi							
1500 - 1,500 psi							
2000 - 2,000 psi							
2500 - 2,500 psi							
3000 - 3,000 psi							
4000 - 4,000 psi							
5000 - 5,000 psi							
6000 - 6,000 psi							
7500 - 7,500 psi							
10000 - 10,000 psi							
15000 - 15,000 psi							
20000 - 20,000 psi							
25000 - 25,000 psi							
30000 - 30,000 psi							
40000 - 40,000 psi							
50000 - 50,000 psi						50000	
60000 - 60,000 psi (available in 8 1/2", 12" or 16")							
75000 - 75,000 psi (available in 8 1/2", 12" or 16")							
100000 - 100,000 psi (available in 8 1/2", 12" or 16")							
Optional Features (if choosing an option(s) must include an "X")							
C - Slotted link							-X
D - Temperature compensated							C
E - Special calibration							
F - Special scale							
G - Dual scale							
H - Special cleaning for oxygen service							
I - 6" Peak load indicator							
J - 8 1/2" Peak load indicator							
K - 12" Peak load indicator							
L - 16" Peak load indicator							
M - 6" Wall mount							
N - 8 1/2", 12" or 16" Wall mount							
W - Special cleaning, O ₂ clean, do not apply warning labels							

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STANDARD RANGES			
	inHg	inH ₂ O	mmHg
Vacuum	-30 to 0	-	-
	0-30	-	-
	0-40	-	-
	0-50	-	-
	0-60	-	-
	0-75	-	-
	-	0-450	-
	-	0-500	-
	-	0-600	-
	-	0-750	-
Positive Pressure	-	0-800	-
	-	-	-
	0-100	-	-
	0-125	-	-
	0-150	-	-
	0-200	-	-
	0-250	-	-
	0-300	-	-
	0-400	-	-
	0-500	-	-
	0-600	-	-
	0-750	-	-
	-	-	0-760
	0-1000	-	-
	-	-	0-1000
	-	-	0-1250
	-	-	0-1500
	-	-	0-2000
	-	-	0-2500
	-	-	0-3000
-	-	0-4000	
-	-	0-5000	

STANDARD RANGES				
	bar kg/cm ² kp/cm ²	kPa	mPa	Notes
Vacuum	-1 to 0	-	-	
	0.2-1	-	-	
	0-1	0-100	-	
	0-1.6	0-160	-	
	0-2	0-200	-	
	0-2.5	0-250	-	
	0-3	0-300	-	
	0-4	0-400	-	
	0-5	0-500	-	
	0-6	0-600	-	
Positive Pressure	0-7.5	0-750	-	
	0-10	0-1000	0-1	
	0-12	0-1200	0-1.50	
	0-16	0-1600	0-1.6	
	0-20	0-2000	0-2	
	0-25	0-2500	0-2.5	
	0-30	0-3000	0-3	
	0-40	0-4000	0-4	
	0-50	0-5000	0-5	
	0-60	0-6000	0-6	
	0-75	0-7500	0-7.5	
	0-100	0-10000	0-10	
	0-125	-	0-12.5	
	0-160	-	0-16	
	0-200	-	0-20	
	0-250	-	0-25	
	0-400	-	0-40	
	0-500	-	0-50	
	0-600	-	0-60	
	0-750	-	0-75	
0-1000	-	0-100		
0-1250	-	0-125		
0-1600	-	0-160		
0-2500	-	0-250		
0-4000	-	0-400	Available in 8½", 12" or 16." Dial face diamerts only	
0-6000	-	0-600	Available in 8½", 12" or 16." Dial face diamerts only	
0-7000	-	0-700	Available in 8½", 12" or 16." Dial face diamerts only	

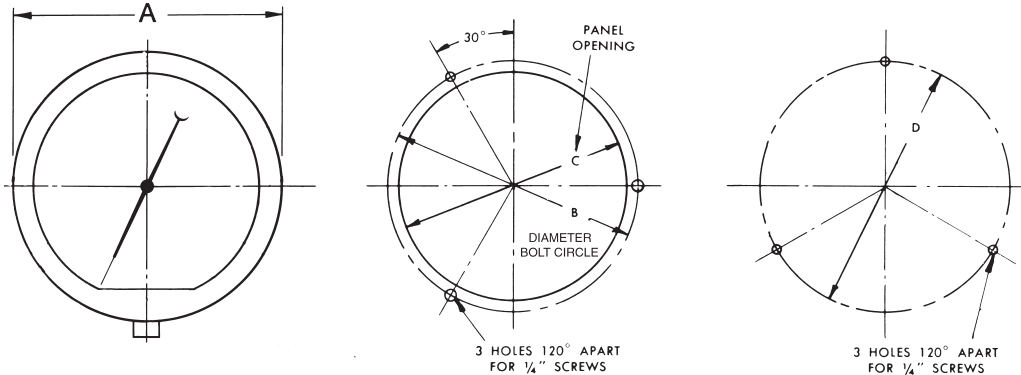
Data Sheet

A4A Precision Pressure Gauge

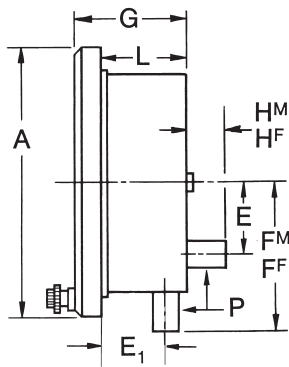
DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

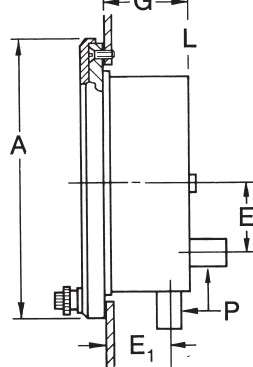
FRONT VIEW



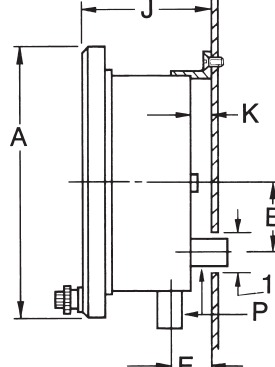
SIDE VIEW



PANEL MOUNTING



WALL MOUNTING



Dial Size																	
Dial Size (inches)	A	B	C	D	E	E ₁	E ₂	FM	FF	G	HF	HM	J	K	L		
6"	7 ⁷ / ₈ [200]	7 [177.8]	6 ¹ / ₂ [165.1]	7 [177.8]	2 [50.8]	1 ⁷ / ₈ [47.6]	1 ¹ / ₄ [31.8]	4 ⁹ / ₁₆ [115.8]	4 ¹ / ₄ [107.9]	3 ³ / ₄ [82.3]	1 ¹ / ₁₆ [27]	1 ³ / ₈ [34.9]	3 ² / ₃₂ [97.6]	5 ⁵ / ₈ [15.9]	2 ¹⁵ / ₃₂ [62.7]		
8 ¹ / ₂ "	10 ⁵ / ₁₆ [261.9]	9 ³ / ₈ [238.1]	8 ⁵ / ₁₆ [228.6]	9 ¹ / ₂ [241.3]	2 [50.8]	1 ⁷ / ₈ [47.6]	1 ¹ / ₄ [31.8]	5 ⁴³ / ₆₄ [144]	5 ²³ / ₆₄ [136.1]	3 ³ / ₄ [82.3]	1 ¹ / ₁₆ [27]	1 ³ / ₈ [34.9]	4 ¹ / ₃₂ [102.4]	5 ⁵ / ₈ [15.9]	2 ²¹ / ₃₂ [67.4]		
12"	13 ²¹ / ₃₂ [346.9]	12 ³ / ₄ [329.9]	12 ³ / ₈ [314.3]	9 ¹ / ₂ [241.3]	2 [50.8]	1 ⁷ / ₈ [47.6]	1 ¹ / ₄ [31.8]	5 ⁴³ / ₆₄ [144]	5 ²³ / ₆₄ [136.1]	3 ³ / ₄ [82.3]	1 ¹ / ₁₆ [27]	1 ³ / ₈ [34.9]	4 ¹ / ₃₂ [102.4]	5 ⁵ / ₈ [15.9]	2 ²¹ / ₃₂ [67.4]		
16"	17 ²³ / ₃₂ [450.1]	16 ³ / ₄ [425.2]	16 ³ / ₈ [415.9]	9 ¹ / ₂ [241.3]	3 ¹ / ₄ [82.6]	1 ⁹ / ₁₆ [33.3]	1 ⁶³ / ₆₄ [50.4]	5 ⁹ / ₁₆ [141.3]	5 ¹ / ₄ [133.4]	3 ²⁵ / ₆₄ [86.1]	1 ¹ / ₁₆ [27]	1 ³ / ₈ [35.0]	4 ¹ / ₁₆ [103.1]	4 ¹ / ₆₄ [16.3]	2 ²¹ / ₃₂ [67.4]		
Pressure Connection* (P)		Pressure Connection is illustrated in both back and bottom configurations															
Approximate Weight	Dial Size (inches)	6"				8 ¹ / ₂ "				12"				16"			
	Net Weight (lbs)	4 ¹ / ₂				7 ³ / ₄				10 ³ / ₄				14 ¹ / ₄			
	Shipping Weight	7				10				15				21			

*Standard Process Connection: 1/4 NPT Female Back Connection for ranges up to and including 10,000 psi
AMINCO 45-11310 or AUTOCLAVE F-250-C for ranges over 10,000 psi