

Data Sheet

1220 General Service Pressure Gauge

FEATURES

- Solid-front case design for safety
- Wide selection of Bourdon tube materials and pressure ranges
- **PLUS!™** Performance option to dampen vibration, shock and pulsation effects to provide liquid-fill performance in a dry gauge

TYPICAL USES

- Deionized water
- Refrigeration
- Specialized OEM equipment



1220

4½" Gauge Shown
6", 8½" available

SPECIFICATIONS

Accuracy:	±1% of span (ASME B40.100 Grade 1A)
Size:	4½", 6", 8½"
Ranges:	Vacuum, compound to 30,000 psi
Process Connection Location:	Lower or back
Process Connection Size:	¼ NPT, ½ NPT
Case Style:	Solid front
Movement:	400 SS, Teflon® coated pinion gear and segment
Window Material:	Glass
Dial:	Aluminum, white background, black figures and intervals
Pointer:	Micrometer adjustable
Weather Protection:	Dry case, case not sealed, recommended for weather protected environment only
Dampening:	PLUS!™ Performance and throttle plugs
Mounting Option:	Flush, stem, surface

WETTED COMPONENTS

Bourdon Tube	Process Connection Material
Phosphor bronze tube	Brass brazed
316L SS	316L SS
K Monel®	K Monel®

NON-WETTED COMPONENTS

Case	Back Cover	Ring
4½": Black phenolic, solid front	4 ½": Polycarbonate	4 ½": Treaded, Polycarbonate
6": Black polypropylene, solid front	6": Polypropylene	6": Polypropylene
8½": Black aluminum, solid front	8 ½": 300 SS	8 ½": Steel, hinged, black enamel

KEY BENEFITS

- Provides durable, reliable performance for many industrial applications
- Versatile general service gauge

MIN/MAX TEMPERATURE LIMITS

Version	Ambient	Process	Storage
Dry	-20°F to 200°F (-29°C to 93°C)	-20°F to 250°F (-29°C to 121°C)	-40°F to 250°F (-40°C to 121°C)

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ORDERING CODE	Example:	451220	S	02	B	XC4	100#
Dial Size/Model Code							
451220 - 4½" phenolic case, solid front		451220					
601220 - 6" polypropylene case, solid front							
851220 - 8½" aluminum case, solid front							
System							
A - Phosphor bronze tube, brass process connection (1,000 psi Max.)							
P - K-Monel® tube, Monel® 400 process connection (30,000 psi Max.)							
S - 316L Stainless steel (20,000 psi Max.)			S				
Process Connection Size							
02 - ¼ NPT Male				02			
04 - ½ NPT Male							
Process Connection Location							
L - Lower							
B - Lower back					B		
Options (If choosing an option(s) must include an "X")							X__
C4 - Individual calibration chart (in accordance with ASME B 40.100:2013. Accuracy of unit traceable to NIST)							C4
LL - PLUS! ™ Performance							
TS - Throttle screw (standard with PLUS! ™)							
PD - Acrylic window							
SG - Safety glass							
EP - Maximum pointer, adjustable (4½" and 6" dial only)							
SH - Red set hand, stationary							
NH - SS tag wired to case							
DA - Dial marking (text marking on dial)							
EO - Red set hand adjustable							
EQ - Minimum pointer							
PR - Receiver gauge							
BD - Black dial							
OS - Overload stop							
VS - Underload stop							
6B - Oxygen service							
H - Hermetic seal							
56 - Flush mounting ring							
Range (See range table on page 3 for all standard ranges)							
100# - 100 psi							100#

BOURDON SYSTEM SELECTION					
Ordering Code Connection ⁽²⁾	Bourdon Tube & Tip Material ⁽¹⁾ (all joints TIG welded except "A")	Socket Material	Tube	Range Selection Type (psi)	NPT Connection ⁽²⁾
A	Phosphor Bronze Bras Tip, Silver Brazed	Brass	C-Tube	15/1,000	¼
S	316 SS	316 SS	C-Tube Helical	15/1,500 2,000/20,000	¼ ½
P⁽⁴⁾	K Monel®	Monel® 400	C-Tube Helical	15/1,500 2,000/30,000	¼ ½

Notes:

⁽¹⁾ For selection of the correct Bourdon system material, see the media application table.

⁽²⁾ Optional connections available: ¼ NPT where ½ NPT is standard, ¼ NPT where ½ NPT is standard.

⁽³⁾ Single-scale and dual-scale ranges available.

⁽⁴⁾ 6" and 8 ½" dial not available with Monel® system.

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SINGLE SCALE					NOTES
	psi	bar	kPa	Mpa	kg/cm ²
Vacuum	30IMV	N1BR	N100KP	N0.1MP	N1KG
	-	N1/0.6BR	N100/60KP	N0.1/0.6MP	N1/0.6KG
	30IMV&15#	-	-	-	-
Compound	-	N1/1.5BR	N100/150KP	N0.1/15MP	N1/1.5KG
	30IMV&30#	-	-	-	-
	-	N1/3BR	N100/300KP	N0.1/3MP	N1/3KG
	30IMV&60#	-	-	-	-
	-	N1/5BR	N100/&500KP	N0.1/5MP	N1/5KG
	-	-	-	-	-
	30IMV&100#	-	-	-	-
	-	N1/9BR	N100/900KP	N0.1/9MP	N1/9KG
	15#	1BR	100KP	0.1MP	1KG
	-	1.6BR	160KP	0.16MP	1.6KG
	30#	-	-	-	-
	-	2.5BR	250KP	0.25MP	2.5KG
	60#	4BR	400KP	0.4MP	4KG
	-	6BR	600KP	0.6MP	6KG
	100#	-	-	-	-
	-	10BR	1000KP	1MP	10KG
	160#	-	-	-	-
	200#	-	-	-	-
	-	16BR	1600KP	1.6MP	16KG
	300#	-	-	-	-
	-	25BR	2500KP	2.5MP	25KG
	400#	-	-	-	-
	600#	40BR	4000KP	4MP	40KG
	800#	-	-	-	-
	-	60BR	6000KP	6MP	60KG
	1000#	-	-	-	-
	1500#	100BR	10000KP	10MP	100KG
	2000#	-	-	-	-
	-	160BR	16000KP	16MP	160KG
	3000#	-	-	-	-
	-	250BR	25000KP	25MP	250KG
	4000#	-	-	-	-
	5000#	-	-	-	-
	6000#	400BR	40000KP	40MP	400KG
	-	600BR	60000KP	60MP	600KG
	8000#	-	-	-	-
	10000#	-	-	-	-
	15000#	1000BR	100000KP	100MP	1000KG

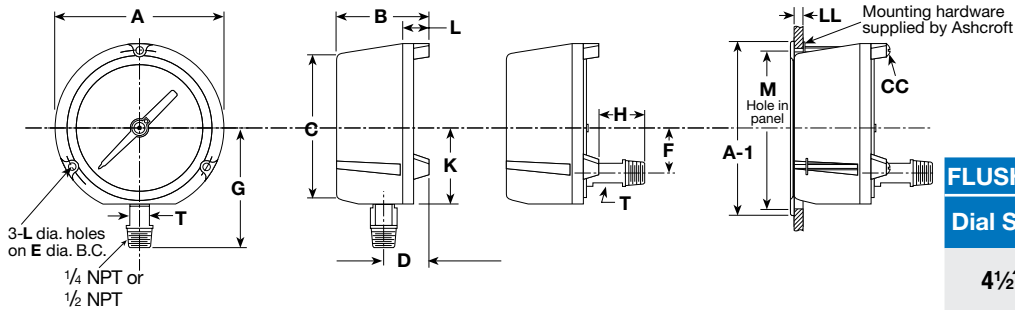
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DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

4½" LOWER & BACK CONNECTION DIMENSIONS

Dial Size (inches)	A	B	C	D	E	F	G	H	J	L	T	V	Weight (lbs)
4½	5 ¹³ / ₁₆ [148]	3 ³ / ₈ [86]	5 ¹ / ₁₆ [129]	1 ⁵ / ₈ [41]	5 ³ / ₈ [137]	1 ⁵ / ₈ [41]	3 ¹⁵ / ₁₆ [100]	¾ [20]	1 [25]	0.218 [6]	5 ⁵ / ₈ [16]	2 ⁵ / ₈ [67]	2½

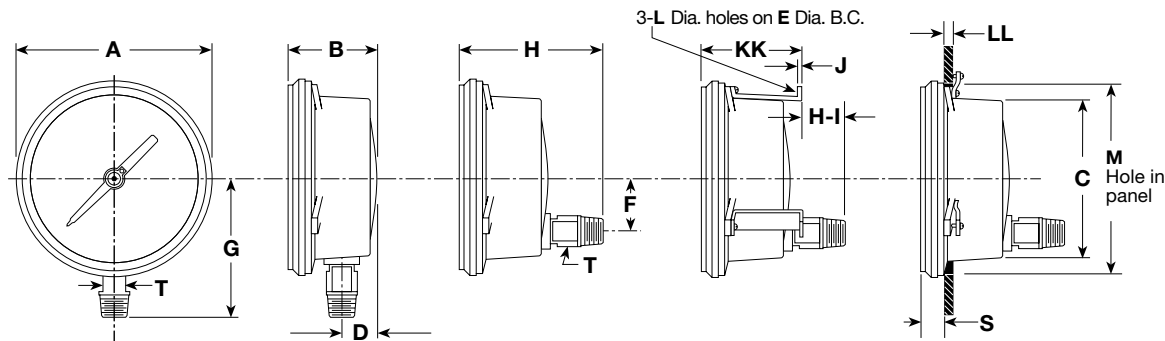


FLUSH MOUNTING RING GAUGE TYPE

Dial Size	A1	M	CC	LL
4½"	6 [152]	5 ³ / ₈ [136]	#10-24	1 ¹ / ₈ - 5 ¹ / ₁₆ [3] - [8]

6" LOWER & BACK CONNECTION DIMENSIONS

Dial Size (inches)	A	B	C	D	E	F	G	H	H1	J	KK	L	LL		M	S	T	Weight (lbs)
													Min.	Max.				
6	6 ³ / ₈ [163]	2 ⁷ / ₁₆ [62]	4 ³ / ₄ [120]	7 ⁷ / ₈ [22]	5 ³ / ₈ [137]	1 ⁵ / ₈ [42]	3 ¹⁵ / ₁₆ [100]	4 ⁹ / ₁₆ [116]	4 ⁹ / ₃₂ [109]	5 ⁵ / ₆₄ [2]	2 ¹¹ / ₁₆ [69]	0.218 [6]	1 ¹ / ₁₆ [2]	1 ¹ / ₂ [13]	6 [152]	1 ¹¹ / ₁₆ [17]	5 ⁵ / ₈ [16]	6



8½" LOWER & BACK CONNECTION DIMENSIONS

Dial Size (inches)	A	B	C	D	E	F	G	H	K	M	P	S	T	U	CC	LL	Weight (lbs)
8½	10 ¹ / ₁₆ [257]	2 ⁷ / ₈ [73]	4 ³ / ₄ [121]	1 ¹ / ₁₆ [27]	9 ⁵ / ₈ [244]	1 ⁵ / ₈ [41]	6 [152]	1 ³ / ₈ [35]	1 ¹ / ₁₆ [27]	9 [229]	2 ¹ / ₈ [54]	5 ⁵ / ₈ [16]	5 ⁵ / ₈ [16]	¾ [19]	¼ - 20	1 ¹ / ₈ - 1 ¹ / ₂ [3] [13]	6

