

Data Sheet

1188 Low Pressure Bellows Gauge

FEATURES

- Inches of water ranges from 5IW
- Bellows-actuated mechanism
- Easy adjustable micrometer pointer
- Available with diaphragm seals

TYPICAL USES

- Oil & gas
- Chemical and petrochemical plants
- Water and wastewater pressure control
- Equipment skids
- Process and industrial applications



1188
4½" dial size

SPECIFICATIONS

Accuracy:	+/-2%-1%-2% (ASME B40.100 Grade A)
Dial Size:	4½"
Range:	10IW Vacuum to 10 psi
Process Connection Location:	Lower, Back
Process Connection Size:	¼ NPT Male, ½ NPT Male
Case Style:	Solid Front (STD.)
Movement:	416 Stainless steel
Window Material:	Glass (STD.), Shatter Proof Glass (OPT.)
Pointer:	Micrometer Adjustable
Dampening Options:	Throttle screw, dampeners, capillary, diaphragm seals and snubbers
Mounting:	Stem, Surface, Flush

WETTED COMPONENTS

Bellows	Process Connection	Joints
Brass	Brass	Soldered: Brass
316 SS	316 SS	Welded: 316 SS
Monel®	Monel®	Monel®

NON-WETTED COMPONENTS

Case	Ring	Back Cover
Phenolic	Polycarbonate	Polypropylene

KEY BENEFITS

- A variety of wetted parts compatible with many process medias
- Ideal product solution for many installations
- Available with panel mount design
- Overpressure capability up to 5x full scale range standard

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ORDERING CODE	Example:	451188	S	S	02	B	XC4	10IW
Dial Size/Model Code								
451188 - 4½" phenolic case, solid front		451188						
System (tube and process connection)								
A - Brass bellows, brass process connection								
S - 316 Stainless steel bellows, stainless steel process connection			S					
P - K-Monel® 500 bellows, Monel® 400 process connection								
Case Design								
S - Solid front, Dry				S				
Process Connection Sizes								
02 - ¼ NPT Male					02			
04 - ½ NPT Male								
Process Connection Location								
L - Lower								
B - Back						B		
Options (If choosing an option(s) must include an "X")								
C4 - Individual calibration chart (in accordance with ASME B40.100:2013. Accuracy traceable to N.I.S.T)							X_	C4
D3 - DuraVis™ Retroreflective Dial								
6B - Cleaned for gaseous oxygen service								
F8 - Gauge, flexible line assembly and diaphragm seal								
PD - Acrylic window								
SG - Safety glass								
NG - Non-glare glass								
DA - Marking on dial								
NH - Stainless Steel tag wired to case								
NN - Paper tag bonded to case								
56 - Flush mounting ring								
Range (coding examples only, see range table on page 3 for all standard ranges)								
Single Scales								
10IW - 10" H ₂ O								10IW

When selecting a diaphragm seal or isolation ring, refer to the [Min/Max Guide](#) for compatibility with this gauge or scan the QR code to the right.



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STANDARD PRESSURE RANGE								
	in. H ₂ O	mmHg	in. Hg	mmH ₂ O	psi	mbar	kPa	
Vacuum	N10IW	N18MM	-	-	-	-	-	
	N15IW	N28MM	-	-	-	-	-	
	N20IW	N37MM	-	-	-	-	-	
	N30IW	N56MM	-	-	-	-	-	
	N40IW	N75MM	-	-	-	-	-	
	N60IW	N110MM	-	-	-	-	-	
	N80IW	N150MM	-	-	-	-	-	
	N100IW	N180MM	-	-	-	-	-	
	N150IW	N270MM	-	-	-	-	-	
	-	-	N10IM	-	-	-	-	-
-	-	N15IM	-	-	-	-	-	
-	-	N20IM	-	-	-	-	-	
-	-	-	N125/125MW	-	N12.5/12.5MB	N1.25/1.25KP	-	
N5/5IW	-	-	-	-	-	-	-	
-	-	-	N200/200MW	-	N20/20MB	N2/2KP	-	
N10/10IW	-	-	-	-	-	-	-	
-	-	-	N300/300MW	-	N30/30MB	N3/3KP	-	
-	-	-	N500/500MW	-	N50/50MB	N5/5KP	-	
Compound	N30/10IW	-	-	-	-	-	-	
	N20/20IW	-	-	-	-	-	-	
	N10/30IW	-	-	-	-	-	-	
	N30/30IW	-	-	-	-	-	-	
	N40/20IW	-	-	N800/800MW	-	N80/80MB	N8/8KP	-
	-	-	-	N1250/1250MW	-	N125/125MB	N12.5/12.5KP	-
	N70/30IW	-	-	-	-	-	-	
	-	-	-	N2000/2000MW	-	N200/200MB	N20/20KP	-
	-	-	-	N3000/3000MW	-	N300/300MB	N30/30KP	-
	5IW	-	-	-	-	-	-	
10IW	-	-	250MW	-	25MB	2.5KP	-	
15IW	-	-	-	-	-	-		
-	-	-	400MW	-	-	-		
-	-	-	-	-	40MB	4KP	-	
20IW	-	-	-	-	-	-		
-	-	-	600MW	-	-	-		
-	-	-	-	-	60MB	6KP	-	
30IW	-	-	-	-	-	-		
-	-	-	1000MW	-	-	-		
40IW	-	-	-	-	100MB	10KP	-	
-	-	-	-	-	-	-		
60IW	-	-	-	-	-	-		
-	-	-	1600MW	-	-	-		
-	-	-	-	-	160MB	16KP	-	
80IW	-	-	-	-	-	-		
-	-	-	2500MW	-	-	-		
100IW	-	-	-	-	250MB	25KP	-	
-	-	-	-	5#	-	-		
150IW	-	-	-	-	-	-		
-	-	-	4000MW	-	-	-		
-	-	-	-	-	400MB	40KP	-	
-	-	-	-	8#	-	-		
-	-	-	6000MW	-	-	-		
-	-	-	-	-	600MB	60KP	-	
-	-	-	-	10#	-	-		

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LOW PRESSURE BELLWS GAUGES OVERPRESSURE & VACUUM TABLE

Burst pressure for all bellows is 100 psi.

The table shown below indicates the over pressure protection built into the bellows actuated low pressure gauges based on the pressure range selected.

(Please refer to PI Page: IG-PI-01A for vacuum and compound range)

Dial Arc	Pressure Ranges	Proof Pressure	Vacuum Protection
180°	10" Water	50" Water	50" Water
180°	15" Water	75" Water	75" Water
180°	20" Water	100" Water	100" Water
216°	30" Water	150" Water	150" Water
270°	40" Water	200" Water	200" Water
270°	60" Water	300" Water	300" Water
270°	80" Water	400" Water	400" Water
270°	100" Water	500" Water	406" Water
270°	150" Water	750" Water	406" Water
270°	5 psi	26 psi	14.7 psi
270°	8 psi	30 psi	14.7 psi
270°	10 psi	30 psi	14.7 psi

DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

Dial Size Inches	A	B	C	D	E	F	G	H	I	J	L	Weight (lbs)
4 1/2	5 13/16 [148]	3 7/16 [87]	5 1/16 [129]	1 11/16 [43]	5 3/8 [137]	1 5/8 [41]	13 15/16 [100]	1 1/2 [38]	5/8 [16]	1 1/8 [29]	7/32 [5.5]	2.5 1.1 kg

