

## Data Sheet

# 1188 Low Pressure Bellows Gauge

### FEATURES

- Inches of water ranges
- 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

- Highly sensitive system providing a safe means for measuring process media
- Ideal product solution for many installations
- Rugged design

### MIN/MAX TEMPERATURE LIMITS

Version	Ambient	Process	Storage
Dry	-20°F to 150°F (-29°C to 66°C)	-20°F to 150°F (-29°C to 66°C)	-40°F to 150°F (-40°C to 66°C)

Note: Other than discoloration of the dial and hardening of the gasketing that may occur as ambient or process temperatures exceeds 150°F, non-liquid-filled gauges with standard glass windows, can withstand continuous operating temperatures up to 250°F (121°C).

Accuracy at temperatures above or below the reference ambient temperature of 68°F (20°C) will be affected by approximately 0.4% per 25°F. Gauges with welded joints will withstand 750°F (400°C), 450°F (232°C) with silver brazed joints for short times without rupture, although other parts of the gauge will be destroyed and calibration will be lost. For continuous use and for process or ambient temperatures above 250°F (121°C), a diaphragm seal or capillary or siphon is recommended.

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ORDERING CODE	Example:	451188	S	S	02	B	XC4	10IW
<b>Dial Size/Model Code</b>								
451188 - 4½" phenolic case, solid front		451188						
<b>System (tube and process connection)</b>								
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								
<b>Case Design</b>								
S - Solid front, Dry				S				
<b>Process Connection Sizes</b>								
02 - ¼ NPT Male					02			
04 - ½ NPT Male								
<b>Process Connection Location</b>								
L - Lower								
B - Back						B		
<b>Options (If choosing an option(s) must include an "X")</b>								
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								
<b>Range (coding examples only, see range table on page 3 for all standard ranges)</b>								
<b>Single Scales</b>								
10IW - 10" H <sub>2</sub> O								10IW

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STANDARD PRESSURE RANGE							
	in. H <sub>2</sub> O	mmHg	in. Hg	mmH <sub>2</sub> 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	-
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	-
Positive Pressure	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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**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 5/8 [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

