

## 1189 Low Pressure Bellows Gauge

### FEATURES

- Millibar and Inches of water ranges
- Available with diaphragm seals
- Bellows-actuated mechanism
- Easy adjustable micrometer pointer
- Solid front safety case with pressure relief back
- Brass, 316 Stainless steel or Monel® wetted parts

### TYPICAL USES

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



**1189**  
4 ½" dial size

### SPECIFICATIONS

Accuracy:	2%-1%-2% (ASME B40.100 Grade A)
Dial Size:	4 ½" or 6"
Range:	25 ... 600 mbar / 10IW Vacuum to 10 psi
Process Connection Location:	Lower
Process Connection Size:	¼ NPT Male, ½ NPT Male
Case Style:	Solid Front (standard)
Movement:	416 Stainless steel
Window Material:	Glass (standard), Shatter Proof Glass (optional)
Dial:	White Aluminum with Black Markings
Pointer:	Micrometer Adjustable
Weather Protection:	IP54
Dampening Options:	Throttle screw, dampeners, capillary, diaphragm seals and snubbers
Mounting:	Stem or Surface
Approval:	EAC

### WETTED COMPONENTS

Bellows	Process Connection	Joints
Brass, St.st 316 Monel®	Brass, St.st 316 Monel®	Soldered: Brass Welded: St.st. 316, Monel®

### NON-WETTED COMPONENTS

Case	Ring	Back Cover
Aluminum	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	-29 °C to 66 °C (-20 °F to 150 °F)	-29 °C to 66 °C (-20 °F to 150 °F)	-40 °C to 66 °C (-40 °F to 150 °F)

Hinweis: Die Genauigkeit bei Temperaturen über oder unter der Referenzumgebungstemperatur von 20 °C (68 °F) wird durch einen Temperaturfehler von ca. 0,3 % pro 10 K beeinflusst.

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ORDERING CODE		EXAMPLE:	45	1189	A	S	04	L	60MB	XC4
<b>Dial Size</b>										
45	4-½" Aluminum case									
60	6" Aluminum case		45							
<b>Model Code</b>										
1189	Low pressure bellows gauge			1189						
<b>System (bellows capsule and process connection)</b>										
A	Brass				A					
S	Stainless steel 316 (1.4401)									
P	K-Monel® 500 bellows and Monel® 400 process connection									
<b>Case Design</b>										
S	Solid front					S				
<b>Process Connection</b>										
02	¼ NPT Male									
04	½ NPT Male						04			
<b>Process Connection Location</b>										
L	Lower							L		
<b>Range (coding example only, see range table on page 3 for all standard ranges)</b>										
<b>Single Scales</b>										
60MB	60 millibar								60MB	
<b>Options (If choosing an option(s) must include a "X")</b>										X__
<b>Dampening</b>										
TS	Throttle screw									
<b>Case/Ring/Dial</b>										
56	Flush mounting ring									
D3	DuraVis™ Retroreflective Dial									
<b>Windows/Pointers</b>										
PD	Acrylic window									
SG	Safety glass									
NG	Non-glare glass									
T1	Test gauge dial and pointer (adjusted friction and twisted end of pointer)									
<b>Marking/Tagging</b>										
NH	Stainless steel tag, wired to case									
NN	Paper tag bonded to case									
DA	Dial marking (Text marking on the dial)									
<b>Cleaning</b>										
6B	Cleaned for oxygen service									
6W	Cleaned for oxidizing processes									
<b>Testing/Certificates</b>										
CD2	Material test report according to EN 10204 / 2.2									
C3	Material report according to EN 10204 / 3.1									
CD5	Certificate according to NACE for Oilfields MR0175 / ISO 15156 and Refineries MR0103 / ISO17945									
MQ	Positive Material Identification (PMI)									
C4	Individual calibration chart (in accordance with ASME B40.100:2013. Accuracy traceable to NIST)									C4



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### STANDARD PRESSURE RANGE

	in. H2O	mm Hg	in. Hg	mm H2O	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	-	-	-	-
Compound	-	-	-	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
Positive pressure	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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### DIMENSIONS IN MM [INCH]

For reference only, consult Ashcroft for specific dimensional drawings

DIAL SIZE INCHES	A	B	C	D	E	G	I	J	L	WEIGHT (KG)
4 1/2	147,6 [5,81]	86,5 [3,41]	123,8 [4,88]	42,9 [1,69]	136,5 [5,38]	38,1 [1,5]	15,9 [0,63]	28,6 [1,13]	5,6 [0,22]	1,2
6	192,1 [7,56]	88,9 [3,5]	168,3 [6,63]	42,9 [1,69]	177,8 [7]	38,1 [1,5]	15,9 [0,63]	28,6 [1,13]	7,1 [0,28]	1,4

### 4 1/2" and 6" lower connection

