

## Type 1189 Low Pressure Bellows Gauge



- Available in 4½" and 6" dial size
- Bellows-actuated mechanism
- Three bellows materials
- Easily adjustable micrometer pointer
- Aluminum case
- All-stainless steel movement

Ashcroft® bellows gauges are used for measuring low pressures from 10" H<sub>2</sub>O to 10 psi pressure as well as vacuum and compound ranges. Coupled with their sensitivity, these gauges have a rugged design for process and industrial applications.

### TEMPERATURE LIMITS

	Ambient	Process	Storage
Dry	-20/150°F (-29/66°C)	-20/150°F (-29/66°C)	-40/150°F (-40/66°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 .4% per 25°F. Gauges with soft soldered joints will withstand 250°F (121°C) 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.

### PRODUCT SPECIFICATIONS

**Model Number:** 1189  
**Accuracy:** 2%-1%-2% ASME Grade A  
**Case Style:** Solid Front (dry only)  
**Case Material:** Aluminum, Black Epoxy Coated  
**Ring:** Polypropylene, Black, Threaded, Reinforced  
**Back Cover:** Polypropylene  
**Dial Size:** 4½" (45) and 6" (60)  
**Dial Material & Color:** White Aluminum with Black Markings

**Bellows & Socket Material:** Brass, 316SS, Monel  
 Joints soldered

**Connection Size:** ¼ NPT, ½ NPT

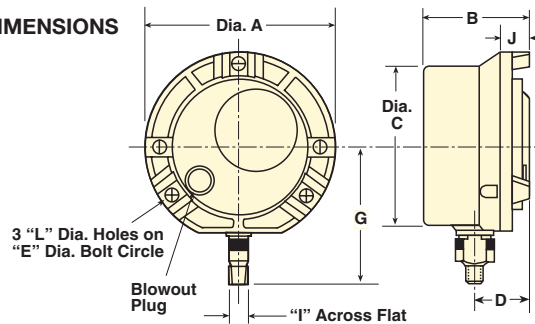
### Connection

**Location:** Lower (L)  
**Range Limits:** 10/IW Vac to 10 psi  
**Mounting:** Stem, Flush & Surface  
**Movement:** 416 SS  
**Pointer:** Micrometer Adjustable  
**Window:** Glass  
**Warranty:** 1 Year

### OPTIONAL FEATURES

**Flush Mounting Ring:** X56  
**Shatter Proof Glass Window:** XSG  
**Acrylic Window:** XPD

### DIMENSIONS



Dial Size Inches	A	B	C	D	E	G	I	J	L	Wght (lbs)
4½	5 13/16 (148)	3 13/32 (87)	4 7/8 (124)	1 11/16 (43)	5 3/8 (137)	1 1/2 (38)	5/8 (16)	1 1/8 (29)	7/8 (5,5)	2.50 1.1 kg
6	7 1/16 (192)	3 1/2 (89)	6 5/8 (162)	1 11/16 (43)	7 (178)	1 1/2 (38)	5/8 (16)	1 1/8 (29)	9/8 (7,5)	3.13 1.4 kg

### BELLWS GAUGE TYPICAL PRODUCT CODING

SIZE	TYPE NUMBER	SYSTEM (Tube & Socket)	CASE DESIGN	PROCESS CONN. SIZE	CONNECTION LOCATION	VARIATIONS	RANGE (in. H <sub>2</sub> O)
(45) 4½ (60) 6	1189	Code Bellows Socket (A) Phos Brz Brass (S) AISI316SS AISI316SS (P) K Monel Monel 400	Code Description S Solid Front	Code NPT (02) ¼ Male (04) ½ Male	Code Description (L) Lower	(NH) SS Wired Tag (TS) Trottle Screw (6B) Oxygen Service (PD) Acrylic Window (SG) Safety Glass (EP) Maximum Pointer, Adjustable (SH) Red Set Hand, Stationary (C4) Individual Calibration Chart	0/10 0/15 0/20 0/30 0/40 0/60 0/80 0/100 0/150

All specifications are subject to change without notice.  
 All sales subject to standard terms and conditions.  
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## Type 1189 Low Pressure Bellows Gauge

STANDARD RANGES										
Double Arc										
Pressure Range		Dial Graduations						Dial Graduations		
		Inner Scale			Outer Scale					
Inner Scale	Outer Scale	Dial Arc (degrees)	Figure Interval	Minor Graduation	Figure Interval	Minor Graduation	Compound (Vac./Pres.)	Dial Arc (degrees)	Figure Interval	Minor Graduation
<b>in. H<sub>2</sub>O</b>	<b>oz/in<sup>2</sup></b>						<b>in. H<sub>2</sub>O</b>	<b>in. H<sub>2</sub>O</b>		
0/10	0/6	180	1	0.5	1	0.25	5/0/5	180	1	0.2
0/15	0/9	180	3	0.5	1	0.25	10/0/10	180	2	0.5
0/20	0/12	180	2	1	1	0.25	30/0/10	270	5	1
0/30	0/18	216	5	1	1	0.5	20/0/20	270	5	0.5
0/40	0/24	270	5	1	3	0.5	40/0/20	270	5	1
0/60	0/35	270	5	1	5	1	10/0/30	270	5	1
0/80	0/45	270	10	1	5	1	30/0/30	270	10	1
0/100	0/57	270	10	1	5	1	70/0/30	270	10	1
0/150	0/90	270	25	1	10	2	20/0/40	270	10	1
<b>psi</b>	<b>in. Hg</b>						<b>in. Hg/psi</b>	<b>in. Hg psi</b>	<b>in. Hg psi</b>	<b>psi</b>
0/5	0/10	270	1	0.25	1	0.5	50/0/50	270	10	1
0/8	0/16	270	1	0.25	2	0.5	5/0/3	270	1	0.2 0.1
0/10	0/20	270	1	0.25	2	0.5	2/0/5	270	1	0.1 0.1
<b>Vacuum</b>							<b>in. Hg/psi</b>	<b>in. Hg psi</b>	<b>in. Hg psi</b>	<b>psi</b>
<b>in. H<sub>2</sub>O</b>	<b>mmHg</b>						5/0/5	270	1	0.2 0.1
10/0	18/0	180	1	0.5	5	1	10/0/5	270	2	0.2 0.1
15/0	28/0	180	3	0.5	3	1				
20/0	37/0	180	2	1	5	1				
30/0	56/0	216	5	1	5	1				
40/0	75/0	270	5	1	10	2				
60/0	110/0	270	5	1	10	2				
80/0	150/0	270	10	1	20	5				
100/0	180/0	270	10	1	20	5				
150/0	270/0	270	25	1	20	5				
<b>in. Hg</b>	<b>ft H<sub>2</sub>O</b>									
10/0	11/0	270	1	0.5	1	5				
15/0	17/0	270	1	0.5	2	5				
20/0	23/0	270	2	0.5	2	1				

STANDARD METRIC RANGES										
Dial Arc (degrees)	Range	Dial Graduation		Range (millibar)	Dial Graduations		Range (kilopascal)	Dial Graduations		Outer Scale Range Specified in. H <sub>2</sub> O
		Figure Interval	Minor Grad.		Figure Interval	Minor Grad.		Figure Interval	Minor Grad.	
	<b>Pressure</b>									
180	0/250	50	2	0/25	5	0.2	0/0/2.5	0.5	0.02	0/10
180	0/400	50	5	0/40	5	0.5	0/4	0.5	0.05	0/16
220	0/600	50	5	0/60	5	0.5	0/6	0.5	0.05	0/24
270	0/1000	100	10	0/100	10	1	0/10	1	0.1	0/40
270	0/1600	200	20	0/160	20	2	0/16	2	0.2	0/60
270	0/2500	500	20	0/250	50	2	0/25	5	0.2	0/100
270	0/4000	500	50	0/400	50	5	0/40	5	0.5	0/160
270	0/6000	500	50	0/600	50	5	0/60	5	0.5	0/240
	<b>Vacuum</b>									
180	-250/0	50	2	-25/0	5	0.2	-2.5/0	0.5	0.02	10/0
180	-400/0	50	5	-40/0	5	0.5	-4/0	0.5	0.05	16/0
220	-600/0	50	5	-60/0	5	0.5	-6/0	0.5	0.05	24/0
270	-1000/0	100	10	-100/0	10	1	-10/0	1	0.1	40/0
270	-1600/0	200	20	-160/0	20	2	-16/0	2	0.2	60/0
270	-2500/0	500	20	-250/0	50	2	-25/0	5	0.2	100/0
270	-4000/0	500	50	-400/0	50	5	-40/0	5	0.5	160/0
270	-6000/0	500	50	-600/0	50	5	-60/0	5	0.5	240/0
	<b>Vacuum</b>									
180	-125/0/125	50	2	-12.5/0/12.5	5	0.2	-1.25/0/1.25	0.5	0.02	5/0/5
180	-200/0/200	50	5	-20/0/20	5	0.5	-2/0/2	0.5	0.05	8/0/8
220	-300/0/300	50	5	-30/0/30	5	0.5	-3/0/3	0.5	0.05	12/0/12
270	-500/0/500	100	10	-50/0/50	10	1	-5/0/5	1	0.1	20/0/20
270	-800/0/800	200	20	-80/0/80	20	2	-8/0/8	2	0.2	30/0/30
270	-1250/0/1250	500	20	-125/0/125	50	2	-12.5/0/12.5	5	0.2	50/0/50
270	-2000/0/2000	500	50	-200/0/200	50	5	-20/0/20	5	0.5	80/0/80
270	-3000/0/3000	500	50	-300/0/300	50	5	-30/0/30	5	0.5	120/0/120