

# Type 1187

## Low Pressure Bellows Gauge



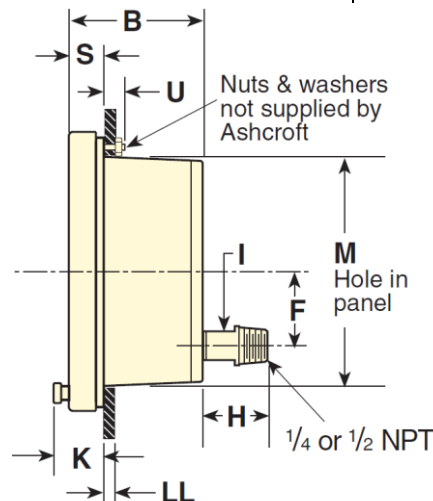
- **4 ½" dial size**
- **Bellows-actuated mechanism**
- **Three bellows materials**
- **Easy adjustable micrometer pointer**
- **Aluminum case**
- **All-stainless steel movement**

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	-29 / 66 °C	-29 / 66 °C	-40 / 60 °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.

### DIMENSIONS in mm



Dial Size	A	B	E	F	H	I	K	M	S	U	CC	LL	Weight
4 ½	155	87	137	41	40	16	28	124	17	19	#10-24	2-6	1,2 kg

### BELLOWS GAUGE PRODUCT CODING:

Dial size	Type	System (Bellows & Socket)		Case Design	Process Connection Size	Connection Location	Range		Options
		(A)	(S)				In. H <sub>2</sub> O	MBAR	
(45) 4 ½"	(1187)	(A) Phos Brz	(S) 316 SS	(S) solid front	(02) ¼ NPT male (04) ½ NPT male	(B) back	0/10 0/15 0/20 0/30 0/40 0/60 0/80 0/100 0/150	0/25 0/40 0/60 0/100 0/160 0/250 0/400 0/600	(NH) SS Wired Tag (TS) Throttle Screw (6B) Oxygen Service (PD) Acrylic Window (SG) Safety Glass (EP) Maximum Pointer, Adjustable (SH) Red Set Hand, Stationary (C4) Individual Calibration Chart

### PRODUCT SPECIFICATIONS:

**Model Number:** 1187  
**Accuracy:** ASME Grade A (2-1-2 %)  
**Case:** solid front (dry only)  
**Case Material:** Aluminum, Black Epoxy Coated  
**Dial Size:** 4 ½" (45)  
**Dial Material & Color:** Aluminum, white Black Markings  
**Ring Type:** Hinged Steel, Black Epoxy Coated  
**Bellows % Socket Material:** Brass, 316SS, Monel Joints soldered  
**Connection Size:** ¼, ½ NPT  
**Connection Location:** back (B)  
**Range:** 10/IW Vacuum to 10 psi  
**Mounting:** Flush only  
**Movement:** 416 SS  
**Pointer:** Micrometer Adjustable  
**Window:** Glass  
**Warranty:** 1 Year

### OPTIONAL FEATURES:

**Shatterproof Glass Window:** X=SG  
**Acrylic Window:** X=PD

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### STANDARD RANGES

Double Arc										
Pressure Range		Dial Graduations								
		Inner Scale			Outer Scale		Range	Dial Graduations		
Inner Scale	Outer Scale	Dial Arc	Figure Interval	Minor Grad.	Figure Interval	Minor Grad.	Compound (Vac. / Pressure)	Dial Arc	Figure Interval	Minor Grad.
<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	0/10	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>						50/0/50	270	10	1
0/5	0/10	270	1	0,25	1	0,5	<b>in. Hg/psi</b>	<b>in. Hg psi</b>	<b>in. Hg psi</b>	<b>in. Hg psi</b>
0/8	0/16	270	1	0,25	2	0,5	5/0/3	270	1 1	0,2 ...0,1
0/10	0/20	270	1	0,25	2	0,5	2/0/5	270	1 1	0,1 ...0,1
							5/0/5	270	1 1	0,2 ...0,1
							10/0/5	270	2 1	0,2 ...0,1
<b>Vacuum</b>	<b>in. H<sub>2</sub>O</b>	<b>mmHg</b>								
10/0	18/0	180	1	0,5	5	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	Range	Dial Graduations		Range	Dial Graduations		Range	Dial Graduations		Outer Scale
	mm H <sub>2</sub> O	Figure Interval	Minor Grad.	mbar	Figure Interval	Minor Grad.	kPa	Figure Interval	Minor Grad.	When Dual Range Specified in. H <sub>2</sub> O
	<b>Pressure:</b>									
180	0/250	50	2	0/25	5	0,2	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>Compound:</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