

1189 Low Pressure Bellows Gauge

FEATURES

- 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
4½", 6" dial size

SPECIFICATIONS

| | |
|------------------------------|------------------------------------------|
| Accuracy: | +/-2%-1%-2% (ASME Grade A) |
| Size: | 4½", 6" |
| Process Connection Location: | Lower |
| Process Connection Size: | ¼ NPT Male, ½ NPT Male |
| Case Style: | Solid Front (dry only) |
| Movement: | 416 Stainless steel |
| Window Material: | Glass (STD.), Shatter Proof Glass (OPT.) |
| Dial: | White Aluminum with Black Markings |
| Pointer: | Micrometer Adjustable |
| Mounting: | Stem, Surface |

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 |
|----------|---------------|---------------|
| 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 | -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) |

Data Sheet

1189 Low Pressure Bellows Gauge

| ORDERING CODE | Example: | 451189 | S | S | 02 | L | XC4 | 10IW |
|---------------------------------------------------------------------------------------------------------|----------|--------|---|---|----|---|-----|------|
| Dial Size/Model Code | | | | | | | | |
| 451189 - 4½" aluminum case, solid front | | 451189 | | | | | | |
| 601189 - 6" aluminum case, solid front | | | | | | | | |
| 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 | | | | | | L | | |
| 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 (4½" case only) | | | | | | | | |
| 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 |

Data Sheet

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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 | 2.5KG | |
| 15IW | - | - | - | - | - | - | |
| - | - | - | 400MW | - | - | - | |
| - | - | - | - | - | 40MB | 4KG | |
| 20IW | - | - | - | - | - | - | |
| - | - | - | 600MW | - | - | - | |
| - | - | - | - | - | 60MB | 6KG | |
| 30IW | - | - | - | - | - | - | |
| - | - | - | 1000MW | - | - | - | |
| 40IW | - | - | - | - | 100MB | 10KG | |
| - | - | - | - | - | - | - | |
| 60IW | - | - | - | - | - | - | |
| - | - | - | 1600MW | - | - | - | |
| - | - | - | - | - | 160MB | 16KG | |
| 80IW | - | - | - | - | - | - | |
| - | - | - | 2500MW | - | - | - | |
| 100IW | - | - | - | - | 250MB | 25KG | |
| - | - | - | - | 5# | - | - | |
| 150IW | - | - | - | - | - | - | |
| - | - | - | 4000MW | - | - | - | |
| - | - | - | - | - | 400MB | 40KG | |
| - | - | - | - | 8# | - | - | |
| - | - | - | 6000MW | - | - | - | |
| - | - | - | - | - | 600MB | 60KG | |
| - | - | - | - | 10# | - | - | |

Data Sheet

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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 | G | I | J | L | Weight (lbs) |
|---------------------|-----------------|-----------------|----------------|-----------------|----------------|---------------|-------------|---------------|---------------|-----------------|
| 4 1/2" | 5 3/16 [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] | 7/32 [5,5] | 2.5 1.1 kg |
| 6" | 7 7/16 [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] | 9/32 [7,5] | 3.13 1.4 kg |

