

## Data Sheet

# 1017 General Service Pressure Gauge

### FEATURES

- Solid-front case design for safety
- Ideal gauge for panel mounting
- **PLUS!**™ Performance option to dampen vibration, shock and pulsation effects to provide a liquid-fill performance in a dry gauge

### TYPICAL USES

- Deionized Water
- Refrigeration
- Hydraulics and Pneumatics
- Specialized OEM Equipment



**1017**  
4½", 6" dial size



### SPECIFICATIONS

|                              |   |
|------------------------------|---|
| Accuracy:                    | ±1% of span (ASME B40.100 Grade 1A)   |
| Size:                        | 4½", 6"   |
| Ranges:                      | Vacuum, Compound to 20,000 psi  |
| Process Connection Location: | Back  |
| Process Connection Size:     | ¼ NPT Male, ½ NPT Male  |
| Case Style:                  | Solid front with pressure relief back   |
| Movement:                    | 400 SS, Teflon™ coated pinion gear and segment                                |
| Window Material:             | Glass   |
| Dial:                        | Aluminum, white background, black figures and intervals                       |
| Case Material:               | Aluminum  |
| Pointer:                     | Micrometer Adjustable   |
| Weather Protection:          | Dry case: Case not sealed, recommended for weather protected environment only |
| Dampening:                   | <b>PLUS!</b> ™ Performance and throttle plugs                                 |
| Mounting:                    | Stem, surface, flush  |

### WETTED COMPONENTS

| Bourdon Tube         | Process Connection Material |
|----------------------|-----------------------------|
| Phosphor bronze tube | Brass brazed                |
| 316L SS              | 316L SS                     |
| K Monel®             | K Monel®                    |

### NON-WETTED COMPONENTS

| Case     | Back Cover | Ring                        |
|----------|------------|-----------------------------|
| Aluminum | 300 SS     | Steel, hinged, black enamel |

### KEY BENEFITS

- Most economical of the general service industrial gauges
- Provides durability, reliability, and performance
- Well-suited for many industrial applications

### MIN/MAX TEMPERATURE LIMITS

| Version | Ambient                               | Process                                | Storage                                |
|---------|---------------------------------------|--|--|
| Dry     | -20 °F to 200 °F<br>(-29 °C to 93 °C) | -20 °F to 250 °F<br>(-29 °C to 121 °C) | -40 °F to 250 °F<br>(-40 °C to 121 °C) |

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| ORDERING CODE   | Example: | 451017 | S | 02 | B | XC4 | 100# |
|---|----------|--------|---|----|---|-----|------|
| <b>Dial Size/Model Code</b>   |          |        |   |    |   |     |      |
| 451017 - 4½" aluminum case, solid front                             |          | 451017 |   |    |   |     |      |
| 601017 - 6" aluminum case, solid front                              |          |        |   |    |   |     |      |
| <b>System</b>   |          |        |   |    |   |     |      |
| A - Phosphor bronze tube, brass process connection (1,000 psi Max.) |          |        |   |    |   |     |      |
| P - K-Monel® tube, Monel® 400 process connection (30,000 psi Max.)  |          |        |   |    |   |     |      |
| S - 316L SS (20,000 psi Max.)                                       |          |        | S |    |   |     |      |
| <b>Process Connection Size</b>                                      |          |        |   |    |   |     |      |
| 02 - ¼ NPT Male   |          |        |   | 02 |   |     |      |
| 04 - ½ NPT Male   |          |        |   |    |   |     |      |
| <b>Process Connection Location</b>                                  |          |        |   |    |   |     |      |
| B - Lower back  |          |        |   |    | B |     |      |
| <b>Options (If choosing an option(s) must include an "X")</b>       |          |        |   |    |   |     |      |
| C4 - <a href="#">Traceable calibration certificate</a>              |          |        |   |    |   |     | X_   |
| LL - <b>PLUS!</b> ™ Performance                                     |          |        |   |    |   |     | C4   |
| TS - Throttle screw (standard with <b>PLUS!</b> ™ Performance)      |          |        |   |    |   |     |      |
| PD - Acrylic window   |          |        |   |    |   |     |      |
| SG - Safety glass   |          |        |   |    |   |     |      |
| EP - Maximum pointer, adjustable (4½" and 6" dial only)             |          |        |   |    |   |     |      |
| SH - Red set hand, stationary                                       |          |        |   |    |   |     |      |
| NH - SS tag wired to case   |          |        |   |    |   |     |      |
| DA - Dial marking (text marking on dial)                            |          |        |   |    |   |     |      |
| EO - Red set hand adjustable  |          |        |   |    |   |     |      |
| EQ - Minimum pointer  |          |        |   |    |   |     |      |
| PR - Receiver gauge   |          |        |   |    |   |     |      |
| BD - Black dial   |          |        |   |    |   |     |      |
| OS - Overload stop  |          |        |   |    |   |     |      |
| VS - Underload stop   |          |        |   |    |   |     |      |
| 6B - Oxygen service   |          |        |   |    |   |     |      |
| <b>Range (See range table on page 3 for all standard ranges)</b>    |          |        |   |    |   |     |      |
| 100# - 100 psi  |          |        |   |    |   |     | 100# |

| BOURDON SYSTEM SELECTION                |   |                 |                   |                            |                               |
|---|---|-----------------|-------------------|----------------------------|-------------------------------|
| Ordering Code Connection <sup>(1)</sup> | Bourdon Tube & Tip Material <sup>(2)</sup> (all joints TIG welded except "A") | Socket Material | Tube              | Range Selection Type (psi) | NPT Connection <sup>(2)</sup> |
| <b>A</b>                                | Phosphor Bronze Brass Tip, Silver Brazed                                      | Brass           | C-Tube            | 12/1,000                   | ¼                             |
| <b>S</b>                                | 316 SS  | 316 SS          | C-Tube<br>Helical | 12/1,500<br>2,000/20,000   | ¼<br>½                        |
| <b>P<sup>(3)</sup></b>                  | K Monel®  | Monel® 400      | C-Tube<br>Helical | 15/1,500<br>2,000/30,000   | ¼<br>½                        |

**Notes:**

- <sup>(1)</sup> Optional connections available: ¼ NPT where ½ NPT is standard, ¼ NPT where ½ NPT is standard.
- <sup>(2)</sup> For selection of the correct Bourdon system material, see the media application table.
- <sup>(3)</sup> 6" dial not available with Monel® system.

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| SINGLE SCALE <sup>(1)</sup> |            |          |             |            | NOTES              |
|-----------------------------|------------|----------|-------------|------------|--------------------|
|                             | psi        | bar      | kPa         | Mpa        | kg/cm <sup>2</sup> |
| Vacuum                      | 30IMV      | N1BR     | N100KP      | N0.1MP     | N1KG               |
|                             | -          | N1/0.6BR | N100/60KP   | N0.1/0.6MP | N1/0.6KG           |
| Compound                    | 30IMV&15#  | -        | -           | -          | -                  |
|                             | -          | N1/1.5BR | N100/150KP  | N0.1/15MP  | N1/1.5KG           |
|                             | 30IMV&30#  | -        | -           | -          | -                  |
|                             | -          | N1/3BR   | N100/300KP  | N0.1/3MP   | N1/3KG             |
|                             | 30IMV&60#  | -        | -           | -          | -                  |
|                             | -          | N1/5BR   | N100/&500KP | N0.1/5MP   | N1/5KG             |
|                             | -          | -        | -           | -          | -                  |
|                             | 30IMV&100# | -        | -           | -          | -                  |
|                             | -          | N1/9BR   | N100/900KP  | N0.1/9MP   | N1/9KG             |
|                             | 15#        | 1BR      | 100KP       | 0.1MP      | 1KG                |
| -                           | 1.6BR      | 160KP    | 0.16MP      | 1.6KG      |                    |
| 30#                         | -          | -        | -           | -          |                    |
| -                           | 2.5BR      | 250KP    | 0.25MP      | 2.5KG      |                    |
| 60#                         | 4BR        | 400KP    | 0.4MP       | 4KG        |                    |
| -                           | 6BR        | 600KP    | 0.6MP       | 6KG        |                    |
| 100#                        | -          | -        | -           | -          |                    |
| -                           | 10BR       | 1000KP   | 1MP         | 10KG       |                    |
| 160#                        | -          | -        | -           | -          |                    |
| 200#                        | -          | -        | -           | -          |                    |
| -                           | 16BR       | 1600KP   | 1.6MP       | 16KG       |                    |
| 300#                        | -          | -        | -           | -          |                    |
| -                           | 25BR       | 2500KP   | 2.5MP       | 25KG       |                    |
| 400#                        | -          | -        | -           | -          |                    |
| 600#                        | 40BR       | 4000KP   | 4MP         | 40KG       |                    |
| 800#                        | -          | -        | -           | -          |                    |
| -                           | 60BR       | 6000KP   | 6MP         | 60KG       |                    |
| 1000#                       | -          | -        | -           | -          |                    |
| 1500#                       | 100BR      | 10000KP  | 10MP        | 100KG      |                    |
| 2000#                       | -          | -        | -           | -          |                    |
| -                           | 160BR      | 16000KP  | 16MP        | 160KG      |                    |
| 3000#                       | -          | -        | -           | -          |                    |
| -                           | 250BR      | 25000KP  | 25MP        | 250KG      |                    |
| 4000#                       | -          | -        | -           | -          |                    |
| 5000#                       | -          | -        | -           | -          |                    |
| 6000#                       | 400BR      | 40000KP  | 40MP        | 400KG      |                    |
| -                           | 600BR      | 60000KP  | 60MP        | 600KG      |                    |
| 8000#                       | -          | -        | -           | -          |                    |
| 10000#                      | -          | -        | -           | -          |                    |
| 15000#                      | 1000BR     | 100000KP | 100MP       | 1000KG     |                    |
| 20000#                      | -          | -        | -           | -          |                    |
| 30000#                      | -          | -        | -           | -          |                    |

4½", 6" systems only

4½", 6" Monel® systems only

<sup>(1)</sup> Dual-scale ranges available.

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### DIMENSIONS in [ ] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

| Dial Size Inches | A  | B                                      | C  | E  | F                                     | H                                     | I                                     | M                                      | S                                     | U         | CC     | LL  | Weight (lbs)   |
|------------------|--|--|--|--|---------------------------------------|---------------------------------------|---------------------------------------|--|---------------------------------------|-----------|--------|---|----------------|
| 4½               | 6 <sup>7</sup> / <sub>100</sub><br>[154] | 2 <sup>3</sup> / <sub>16</sub><br>[56] | 4 <sup>13</sup> / <sub>16</sub><br>[122] | 5 <sup>3</sup> / <sub>8</sub><br>[136.5] | 1 <sup>5</sup> / <sub>8</sub><br>[41] | 1 <sup>5</sup> / <sub>8</sub><br>[41] | 5 <sup>5</sup> / <sub>8</sub><br>[16] | 4 <sup>7</sup> / <sub>8</sub><br>[124] | 5 <sup>5</sup> / <sub>8</sub><br>[16] | ¾<br>[19] | 10-24  | 1 <sup>1</sup> / <sub>8</sub> - 1 <sup>1</sup> / <sub>2</sub><br>[3-13] | 2.63<br>1.2 kg |
| 6                | 7 <sup>9</sup> / <sub>16</sub><br>[192]  | 2 <sup>3</sup> / <sub>16</sub><br>[56] | 6 <sup>5</sup> / <sub>16</sub><br>[160]  | 7<br>[178]                               | 2 <sup>1</sup> / <sub>8</sub><br>[54] | 1 <sup>5</sup> / <sub>8</sub><br>[41] | 5 <sup>5</sup> / <sub>8</sub><br>[16] | 6 <sup>1</sup> / <sub>2</sub><br>[165] | 5 <sup>5</sup> / <sub>8</sub><br>[16] | ¾<br>[19] | ¼ - 20 | 1 <sup>1</sup> / <sub>8</sub> - 1 <sup>1</sup> / <sub>2</sub><br>[3-13] | 2.75<br>1.3 kg |

