

## FEATURES

- PLUS!™** Performance (optional) dampens vibration, shock and pulsation effects
- PowerFlex™** movement provides superior resistance to vibration, shock, and pulsation
- True Zero™** reduces reading errors by using a "zero box" instead of conventional dial pins
- Wide selection of connections



## SPECIFICATIONS

|                              |                                                                            |
|------------------------------|----------------------------------------------------------------------------|
| Accuracy:                    | ±1% of span (Dry) (ASME B40.100 Grade 1A)<br>±1.5% of span (Liquid filled) |
| Process Connection Location: | Lower, lower back, top, 3 o'clock, 9 o'clock                               |
| Ranges:                      | AW: Vacuum, compound to 1,000 psi<br>SW: Vacuum, compound to 15,000 psi    |
| Movement:                    | 304 SS with glass filled polyester segment                                 |
| Window Material:             | Polycarbonate                                                              |
| Pointer:                     | Black, aluminum                                                            |
| Weather Protection:          | IP65 (Plug closed), IP54 (Plug vented)<br>NEMA 4 (Plug closed)             |
| Mounting Option:             | U-clamp, front or back flange                                              |
| Dampening:                   | Liquid fill or <b>PLUS!™</b> Performance                                   |

## WETTED COMPONENTS

| Model | Bourbon Tube | Process Connection Material |
|-------|--------------|-----------------------------|
| SW    | 316L SS      | 316L SS                     |
| AW    | 316L SS      | Aluminum bronze             |

## NON-WETTED COMPONENTS

| Case               | Ring (bayonet removable) |
|--------------------|--------------------------|
| 304 SS             | 304 SS                   |
| 316L SS (optional) | 316L SS (optional)       |

## MIN/MAX TEMPERATURE LIMITS

| Version          | Ambient                           | Process                            | Storage                            |
|------------------|-----------------------------------|------------------------------------|------------------------------------|
| Dry              | -40°F to 200°F<br>(-40°C to 93°C) | -40°F to 250°F<br>(-40°C to 121°C) | -40°F to 250°F<br>(-40°C to 121°C) |
| <b>PLUS!™</b>    | -40°F to 150°F<br>(-40°C to 66°C) | -40°F to 200°F<br>(-40°C to 93°C)  | -40°F to 150°F<br>(-40°C to 66°C)  |
| Glycerin Fill    | 20°F to 150°F<br>(-7°C to 66°C)   | 20°F to 200°F<br>(-7°C to 93°C)    | 0°F to 150°F<br>(-18°C to 66°C)    |
| Silicone Fill    | -40°F to 150°F<br>(-40°C to 66°C) | -40°F to 200°F<br>(-40°C to 93°C)  | -40°F to 150°F<br>(-40°C to 66°C)  |
| Halocarbon® Fill | -40°F to 150°F<br>(-40°C to 66°C) | -40°F to 200°F<br>(-40°C to 93°C)  | -40°F to 150°F<br>(-40°C to 66°C)  |



**1009SW Duralife®**  
2½" dial size



**1009AW Duralife®**  
2½" dial size



**1009SW Duralife®**  
3½" dial size



**1009AW Duralife®**  
3½" dial size



## 2½", 3½" - 1009 Pressure Gauge

| ORDERING CODE:                                                                                          | Example: | 251009 | SW | L | 02 | L | XC4 | 100# |
|---------------------------------------------------------------------------------------------------------|----------|--------|----|---|----|---|-----|------|
| <b>Dial Size/Model Code</b>                                                                             |          |        |    |   |    |   |     |      |
| 251009 - 2½" SS case                                                                                    |          | 251009 |    |   |    |   |     |      |
| 351009 - 3½" SS case                                                                                    |          |        |    |   |    |   |     |      |
| <b>System</b>                                                                                           |          |        |    |   |    |   |     |      |
| AW - 316L SS tube/Aluminum, bronze connection (max. pressure 1,000 psi)                                 |          |        |    |   |    |   |     |      |
| SW - 316L SS tube/316L SS process connection (max. pressure 15,000 psi)                                 |          |        | SW |   |    |   |     |      |
| <b>Case Fill</b>                                                                                        |          |        |    |   |    |   |     |      |
| Blank - Dry gauge                                                                                       |          |        |    |   |    |   |     |      |
| L - Liquid filled case (glycerin standard)                                                              |          |        |    | L |    |   |     |      |
| <b>Process Connection Size</b>                                                                          |          |        |    |   |    |   |     |      |
| 02 - ¼ NPT Male                                                                                         |          |        |    |   | 02 |   |     |      |
| 04 - ½ NPT Male                                                                                         |          |        |    |   |    |   |     |      |
| RW - SAE - 47/16" - 20 Straight thread with washer, O-ring and nut                                      |          |        |    |   |    |   |     |      |
| EJ - 7/16" X 20 UNF-3A 37° flare                                                                        |          |        |    |   |    |   |     |      |
| KJ - ¼" Straight JIS, BSP - 1009SW                                                                      |          |        |    |   |    |   |     |      |
| KA - ¼" Tapered JIS, BSP - 1009SW                                                                       |          |        |    |   |    |   |     |      |
| 13 - G ¼" DIN                                                                                           |          |        |    |   |    |   |     |      |
| JP - ¼" Tubing, N/A with throttle plug, N/A ranges above 6,000 psi                                      |          |        |    |   |    |   |     |      |
| JQ - 6mm Tubing, N/A with throttle plug, N/A ranges above 6,000 psi                                     |          |        |    |   |    |   |     |      |
| JL - 9/16" 18 UNF-2A, N/A on 25 1009 lower                                                              |          |        |    |   |    |   |     |      |
| <b>Process Connection Location</b>                                                                      |          |        |    |   |    |   |     |      |
| L - Lower                                                                                               |          |        |    |   |    | L |     |      |
| B - Lower back                                                                                          |          |        |    |   |    |   |     |      |
| D - Side (3 o'clock)                                                                                    |          |        |    |   |    |   |     |      |
| E - Side (9 o'clock)                                                                                    |          |        |    |   |    |   |     |      |
| T - Top                                                                                                 |          |        |    |   |    |   |     |      |
| <b>Options (if choosing an option(s) must include an "X")</b>                                           |          |        |    |   |    |   | X__ |      |
| C4 - Individual calibration chart (in accordance with ASME B 40.100 Accuracy of unit traceable to NIST) |          |        |    |   |    |   | C4  |      |
| LL - <b>PLUS!</b> ™ Performance                                                                         |          |        |    |   |    |   |     |      |
| GV - Silicone case fill                                                                                 |          |        |    |   |    |   |     |      |
| GX - Halocarbon® case fill                                                                              |          |        |    |   |    |   |     |      |
| TU - Throttle plug, (1,000 psi max pressure)                                                            |          |        |    |   |    |   |     |      |
| TS - Throttle screw, (15,000 psi max pressure)                                                          |          |        |    |   |    |   |     |      |
| 6B - Cleaned for oxygen service (SW system only)                                                        |          |        |    |   |    |   |     |      |
| SG - Safety glass                                                                                       |          |        |    |   |    |   |     |      |
| EO - Adjustable red set hand, (N/A with liquid fill)                                                    |          |        |    |   |    |   |     |      |
| SH - Red set hand, stationary                                                                           |          |        |    |   |    |   |     |      |
| NH - SS tag wired to case                                                                               |          |        |    |   |    |   |     |      |
| FF - Front flange                                                                                       |          |        |    |   |    |   |     |      |
| BF - Back flange                                                                                        |          |        |    |   |    |   |     |      |
| UC - U-clamp                                                                                            |          |        |    |   |    |   |     |      |
| SM - All SS movement                                                                                    |          |        |    |   |    |   |     |      |
| YW - 316L SS case and ring                                                                              |          |        |    |   |    |   |     |      |
| <b>Range (see range table on page 34 for all standard ranges)</b>                                       |          |        |    |   |    |   |     |      |
| 100# - 100 psi                                                                                          |          |        |    |   |    |   |     | 100# |

| Single Scale Models: 1008S, 1009, 1010, 1017, 1020 & 2008 |            |          |            |             | Notes                                        |
|-----------------------------------------------------------|------------|----------|------------|-------------|----------------------------------------------|
|                                                           | psi        | bar      | kPa        | MPa         | kg/cm <sup>2</sup>                           |
| Vacuum                                                    | 30IMV      | N1BR     | N100KP     | N0.1MP      | N1KG                                         |
|                                                           | -          | N1/0.6BR | N100/60KP  | N0.1/0.06MP | N1/0.6KG                                     |
| Compound                                                  | 30IMV&15#  | -        | -          | -           | -                                            |
|                                                           | -          | N1/1.5BR | N100/150KP | N0.1/0.15MP | N1/1.5KG                                     |
|                                                           | 30IMV&30#  | -        | -          | -           | -                                            |
|                                                           | -          | N1/3BR   | N100/300KP | N0.1/0.3MP  | N1/3KG                                       |
|                                                           | 30IMV&60#  | -        | -          | -           | -                                            |
|                                                           | -          | N1/5BR   | N100/500KP | N0.1/0.5MP  | N1/5KG                                       |
|                                                           | -          | -        | -          | -           | -                                            |
|                                                           | 30IMV&100# | -        | -          | -           | -                                            |
|                                                           | -          | N1/9BR   | N100/900KP | N0.1/9MP    | N1/9KG                                       |
|                                                           | 15#        | 1BR      | 100KP      | 0.1MP       | 1KG                                          |
| Positive Pressure                                         | -          | 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       | 1,000KG                                      |
|                                                           | 20000#     | -        | -          | -           | -                                            |
|                                                           | 30000#     | -        | -          | -           | -                                            |
|                                                           |            |          |            |             | 4½", 6" 1009, 1010, 1017 SS systems only     |
|                                                           |            |          |            |             | 4½", 6" 1009, 1010, 1017 Monel® systems only |

## Standard Pressure Ranges

| G2, G3, T2 RANGE TABLE                  |                         |          |    |    |    |
|-----------------------------------------|-------------------------|----------|----|----|----|
|                                         | Range                   | Code     | G2 | T2 | G3 |
| Compound                                | Vacuum                  | 0#&vac   |    |    | •  |
|                                         | 15 psi/-14.7 psi        | 15#&vac  |    |    | •  |
|                                         | 30 psi/-14.7 psi        | 30#&vac  | •  | •  | •  |
|                                         | 45 psi/-14.7 psi        | 45#&vac  | •  | •  | •  |
|                                         | 60 psi/-14.7 psi        | 60#&vac  | •  | •  | •  |
|                                         | 85 psi/-14.7 psi        | 85#&vac  | •  | •  | •  |
|                                         | 100 psi/-14.7 psi       | 100#&vac | •  | •  | •  |
|                                         | 150 psi/-14.7 psi       | 150#&vac | •  | •  | •  |
|                                         | 200 psi/-14.7 psi       | 200#&vac | •  | •  | •  |
|                                         | 300 psi/-14.7 psi       | 300#&vac | •  | •  | •  |
| Positive Pressure                       | 5 psi                   | 5#       |    |    | •  |
|                                         | 15 psi                  | 15#      |    |    | •  |
|                                         | 30 psi                  | 30#      | •  | •  | •  |
|                                         | 50 psi                  | 50#      | •  | •  | •  |
|                                         | 60 psi                  | 60#      | •  | •  | •  |
|                                         | 100 psi                 | 100#     | •  | •  | •  |
|                                         | 150 psi                 | 150#     | •  | •  | •  |
|                                         | 200 psi                 | 200#     | •  | •  | •  |
|                                         | 250 psi                 | 250#     | •  | •  |    |
|                                         | 300 psi                 | 300#     | •  | •  | •  |
|                                         | 400 psi                 | 400#     | •  | •  |    |
|                                         | 500 psi                 | 500#     | •  | •  |    |
|                                         | 750 psi                 | 750#     | •  | •  |    |
|                                         | 1,000 psi               | 1000#    | •  | •  |    |
|                                         | 1,500 psi               | 1500#    | •  | •  |    |
|                                         | 2,000 psi               | 2000#    | •  | •  |    |
|                                         | 3,000 psi               | 3000#    | •  | •  |    |
|                                         | 5,000 psi               | 5000#    | •  | •  |    |
|                                         | 6,000 psi               | 6000#    | •  | •  |    |
|                                         | 7,500 psi               | 7500#    | •  | •  |    |
|                                         | 10,000 psi              | 10000#   | •  | •  |    |
|                                         | 15,000 psi <sup>1</sup> | 15000#   | •  | •  |    |
|                                         | 20,000 psi <sup>1</sup> | 20000#   | •  | •  |    |
| bar, kPa, and mPa ranges also available |                         |          |    |    |    |

<sup>1</sup> Only available with M01, M02, MG2, M76, M03 & M77 process connections

| A2, A4, A2X RANGE TABLE |                  |         |                                                                                            |
|-------------------------|------------------|---------|--------------------------------------------------------------------------------------------|
|                         | Range            | Code    | NOTES                                                                                      |
| Compound                | Vacuum           | 0#&vac  | 17-4PH SS sensor not available, gauge pressure only                                        |
|                         | 15 psi/-14.7 psi | 15#&vac | 17-4PH SS sensor not available, gauge pressure only                                        |
|                         | 30 psi/-14.7 psi | 30#&vac | 17-4PH SS sensor not available, gauge pressure only                                        |
|                         | 45 psi/-14.7 psi | 45#&vac | Gauge pressure only                                                                        |
|                         | 60 psi/-14.7 psi | 60#&vac | Gauge pressure only                                                                        |
|                         |                  |         |                                                                                            |
| Positive Pressure       | 1.5 psi          | 1.5#    | 17-4PH SS sensor not available, gauge pressure only, available with accuracies B or C only |
|                         | 5 psi            | 5#      | 17-4PH SS sensor not available, gauge pressure only                                        |
|                         | 10 psi           | 10#     | 17-4PH SS sensor not available, gauge pressure only                                        |
|                         | 15 psi           | 15#     | 17-4PH SS sensor not available                                                             |
|                         | 30 psi           | 30#     | 17-4PH SS sensor not available                                                             |
|                         | 50 psi           | 50#     |                                                                                            |
|                         | 60 psi           | 60#     |                                                                                            |
|                         | 75 psi           | 75#     |                                                                                            |
|                         | 100 psi          | 100#    |                                                                                            |
|                         | 150 psi          | 150#    |                                                                                            |
|                         | 200 psi          | 200#    |                                                                                            |
|                         | 300 psi          | 300#    |                                                                                            |
|                         | 500 psi          | 500#    |                                                                                            |
|                         | 750 psi          | 750#    |                                                                                            |
|                         | 1,000 psi        | 1000#   |                                                                                            |
|                         | 1,500 psi        | 1500#   |                                                                                            |
|                         | 2,000 psi        | 2000#   |                                                                                            |
|                         | 3,000 psi        | 3000#   |                                                                                            |
|                         | 5,000 psi        | 5000#   |                                                                                            |
|                         | 6,000 psi        | 6000#   |                                                                                            |
|                         | 7,500 psi        | 7500#   |                                                                                            |
|                         | 10,000 psi       | 10000#  | 17-4PH SS sensor required                                                                  |