

Data Sheet

1009 2½", 3½" Stainless Steel Pressure Gauges

FEATURES

- Meets ASME B40.100 specifications
- All welded stainless steel construction
- PLUS™** Performance option dampens vibration, shock and pulsation effects
- MSL helium leak tested to 1X10⁻⁶ scc/s
- Ventable fill plug
- Wide selection of connections
- NSF-61 Compliant

TYPICAL USES

- Pumps and compressors
- Boilers
- Equipment skids
- Specialized OEM equipment
- Hydraulics and pneumatics
- Severe ambient conditions
- Ammonia and refrigeration

SPECIFICATIONS

Accuracy: ±1% of span (Dry) (ASME B40.100 Grade 1A)
±1.5% of span (Liquid filled)

Size: 2½", 3½"

Ranges: AW: Vacuum, compound, to 1,000 psi
SW: Vacuum, compound to 15,000 psi

Process Connection Location: Lower, lower back, top, 3 o'clock, 9 o'clock

Process Connection Size: ¼ NPT Male, ½ NPT Male, and others listed on page 2

Movement: 304 SS with glass filled polyester segment

Dial: Black figures on white background

Pointer: Black, aluminum

Weather Protection: IP65 (Plug closed), IP54 (Plug vented)
NEMA 4X (Plug closed)

Mounting Option: U-clamp, front or back flange

Dampening: Liquid fill or **PLUS!™** Performance

Approval: RoHS, CRN, CE/UKCA, NSF-61

WETTED COMPONENTS

| Model | Bourdon Tube | Process Connection Material |
|-------|----------------------|-----------------------------|
| SW | 316L Stainless Steel | 316L Stainless Steel |
| AW | 316L Stainless Steel | Aluminum bronze |

NON-WETTED COMPONENTS

| Case | Window | Ring (bayonet removable) |
|-----------------------------|---------------|-----------------------------|
| 304 Stainless Steel | Polycarbonate | 304 Stainless Steel |
| 316L Stainless Steel (OPT.) | Polycarbonate | 316L Stainless Steel (OPT.) |



1009SW Duralife®
2½" dial size with front flange



1009AW Duralife®
3½" dial size



1009SW Duralife®
2½" dial size



1009SW Duralife®
2½" dial size

KEY BENEFITS

- PowerFlex™** movement provides superior resistance to shock, vibration and pulsation
- True Zero™** reduces reading errors by using "zero box" instead of conventional dial pins
- Field fillable**

MIN/MAX TEMPERATURE LIMITS

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

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1009 2½", 3½" Stainless Steel Pressure Gauges

| ORDERING CODE: | Example: | 251009 | SW | L | 02 | L | XC4 | 100# |
|---|----------|--------|----|---|----|---|-----|------|
| Dial Size/Model Code | | | | | | | | |
| 25 - 251009 | | 251009 | | | | | | |
| 35 - 351009 | | | | | | | | |
| System | | | | | | | | |
| 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) (NSF-61 Compliant) | | | SW | | | | | |
| Case Fill | | | | | | | | |
| (blank) Dry gauge | | | | | | | | |
| L - Liquid filled case (glycerin standard) | | | | L | | | | |
| Process Connection Size | | | | | | | | |
| 01 - ⅛ NPT Male | | | | | | | | |
| 02 - ¼ NPT Male | | | | | 02 | | | |
| 04 - ½ NPT Male (SW models only) | | | | | | | | |
| RW - SAE-4, 7/16" - 20 Straight thread | | | | | | | | |
| 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, (SW models only) N/A with throttle plug, N/A ranges above 6,000 psi | | | | | | | | |
| JQ - 6 mm Tubing, (SW models only) N/A with throttle plug, N/A ranges above 6,000 psi | | | | | | | | |
| JL - 9/16" 18 UNF-2A, (SW models only) N/A on 25 1009 | | | | | | | | |
| JR - 3/8" Tubing, (SW models only) N/A with throttle plug, N/A on ranges above 6,000 psi | | | | | | | | |
| Process Connection Location | | | | | | | | |
| L - Lower | | | | | | L | | |
| B - Lower back | | | | | | | | |
| D - Side (3 o'clock) | | | | | | | | |
| E - Side (9 o'clock) | | | | | | | | |
| T - Top | | | | | | | | |
| Options (If choosing an option(s) must include an "X") | | | | | | | X__ | |
| Dampening | | | | | | | | |
| GV - Silicone filling (add to glycerine filled case) | | | | | | | | |
| GX - Halocarbon® filling (add to glycerine filled case) | | | | | | | | |
| LL - PLUS! ™ Performance | | | | | | | | |
| NZ - PLUS! ™ Performance silicone free | | | | | | | | |
| T4 - Push in throttle plug brass (orifice 0.007") | | | | | | | | |
| TS - Stainless helical throttle plug (standard with liquid fill and XLL (SWL) gauges 1500# and above) | | | | | | | | |
| TU - Throttle plug (orifice 0.013) (standard with liquid fill and XLL gauges 30# to 1000#) | | | | | | | | |
| WP - No throttle plug | | | | | | | | |
| ZF - Food grade silicone (add to glycerine filled gauge) | | | | | | | | |
| Mounting | | | | | | | | |
| FF - Front flange | | | | | | | | |
| FW - Back flange | | | | | | | | |
| UC - U-clamp | | | | | | | | |
| Case/Movement | | | | | | | | |
| LC - Weld nuts (when required on lower connect) | | | | | | | | |
| LJ - Liquid fillable dry case (throttle plug is standard) | | | | | | | | |
| VY - Krytox™ lubricated movement | | | | | | | | |
| YW - 316L Stainless steel case/ring (only available with system 1009SW & SWL) | | | | | | | | |

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1009 2½", 3½" Stainless Steel Pressure Gauges

| ORDERING CODE: (continued) | Example: | 251009 | SW | L | 02 | L | XC4 | 100# |
|---|----------|--------|----|---|----|---|-----|------|
| Options (If choosing an option(s) must include an "X") | | | | | | | | X__ |
| Windows | | | | | | | | |
| SG - Safety glass | | | | | | | | |
| Pointers | | | | | | | | |
| EO - Red set hand - adjustable (not available with liquid filled units) | | | | | | | | |
| SH - Red set hand - stationary single | | | | | | | | |
| SJ - Red set hand - stationary single | | | | | | | | |
| MP - Adjustable pointer - micrometer | | | | | | | | |
| Tags | | | | | | | | |
| DA - Dial marking | | | | | | | | |
| NH - Stainless steel tag | | | | | | | | |
| NN - Paper tag | | | | | | | | |
| Test and Calibration Report | | | | | | | | |
| 6B - Cleaned for gaseous oxygen service (for liquid filled Halocarbon® (GX) required, N/A on ranges greater than 10,000 psi) | | | | | | | | |
| 6W - Cleaned for gases other than oxygen | | | | | | | | |
| C3 - Material certification (consult factory for availability) | | | | | | | | |
| C4 - Traceable calibration certificate | | | | | | | | C4 |
| HY - Hydrostatic test - when attached to a diaphragm seal add HY code to gauge and seal product code (if attached to seal charge will be on gauge only) | | | | | | | | |
| KH - Any calibration other than standard | | | | | | | | |
| MF - Mercury free | | | | | | | | |
| MQ - Positive material identification (PMI) (only available with stainless steel systems, tube, tip, and socket) | | | | | | | | |
| Refrigerants - (consult factory for available dials) | | | | | | | | |
| R1 - Refrigerant 11 | | | | | | | | |
| R2 - Refrigerant 12 | | | | | | | | |
| R3 - Refrigerant 22 | | | | | | | | |
| R4 - Refrigerant 502 | | | | | | | | |
| R5 - Ammonia - (must have stainless steel wetted parts) | | | | | | | | |
| R6 - Refrigerant 114 | | | | | | | | |
| R7 - Refrigerant 500 | | | | | | | | |
| R8 - Refrigerant 134A | | | | | | | | |
| R9 - Refrigerant 123 | | | | | | | | |
| Other | | | | | | | | |
| AB - Absolute pressure (gauge is offset by 14.7 psi, contact inside sales for more information) | | | | | | | | |
| PR - Receiver gauge (N/A on liquid filled gauges - consult factory for available dials) | | | | | | | | |
| Range (see range table for all standard ranges) | | | | | | | | |
| 100# - 100 psi | | | | | | | | 100# |

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| STANDARD RANGES | | | | | |
|-----------------|------------|-----------|------------|------------|--------------------|
| | psi | bar | kPa | MPa | kg/cm ² |
| Vacuum | 30IMV | N1BR | N100KP | N0.1MP | N1KG |
| | - | N1/0.6BR | N1/0.6BR | N0.1/0.6MP | N1/0.6KG |
| | 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# | - | - | - | - |
| | 30IMV&150# | - | - | - | - |
| Compound | 30IMV&300# | - | - | - | - |
| | - | N1/9BR | N100/900KP | N0.1/9MP | N1/9KG |
| | 15# | 1BR | 100KP | .1MP | 1KSC |
| | 20# | - | - | - | - |
| | - | 1.6BR | 160KP | .16MP | 1.6KSC |
| | 30# | - | - | - | - |
| | - | 2.5BR | 250KP | .25MP | 2.5KSC |
| | 60# | 4BR | 400KP | .4MP | 4KSC |
| | - | 6BR | 600KP | .6MP | 6KSC |
| | 100# | - | - | - | - |
| | 120# | - | - | - | - |
| | - | 10BR | 1,000KP | 1MP | 10KSC |
| | 160# | - | - | - | - |
| | 200# | - | - | - | - |
| | - | 16BR | 1,600KP | 1.6MP | 16KSC |
| | 300# | - | - | - | - |
| | - | 25BR | 2,500KP | 2.5MP | 25KSC |
| | 400# | - | - | - | - |
| | 500# | - | - | - | - |
| | 600# | 40BR | 4,000KP | 4MP | 40KSC |
| | 800# | - | - | - | - |
| | - | 60BR | 6,000KP | 6MP | 60KSC |
| | 1,000# | - | - | - | - |
| | 1,500# | 100BR | 10,000KP | 10MP | 100KSC |
| | 2,000# | - | - | - | - |
| | - | 160BR | 16,000KP | 16MP | 160KSC |
| | 3,000# | - | - | - | - |
| - | 250BR | 25,000KP | 25MP | 250KSC | |
| 4,000# | - | - | - | - | |
| 5,000# | - | - | - | - | |
| 6,000# | 400BR | 40,000KP | 40MP | 400KSC | |
| 8,000# | - | - | - | - | |
| - | 600BR | 60,000KP | 60MP | 600KSC | |
| 10,000# | - | - | - | - | |
| 15,000# | 1,000BR | 100,000KP | 100MP | 1,000KSC | |

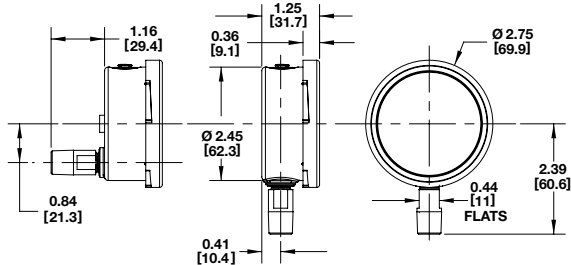
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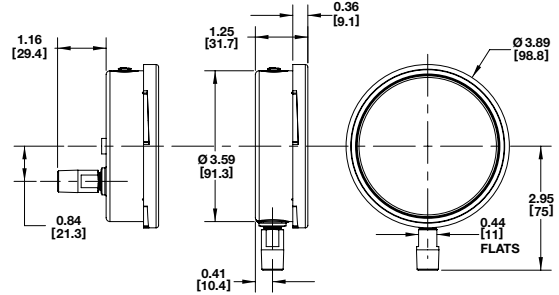
DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

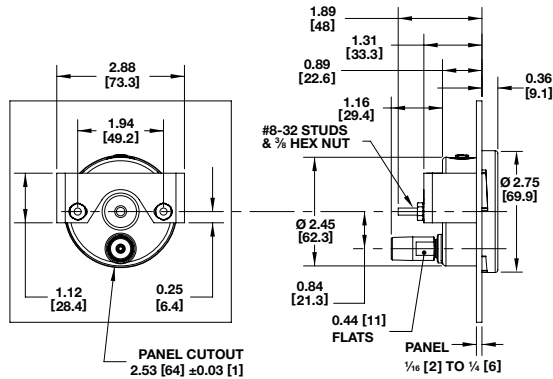
2½" 1009 Lower and Back Connect



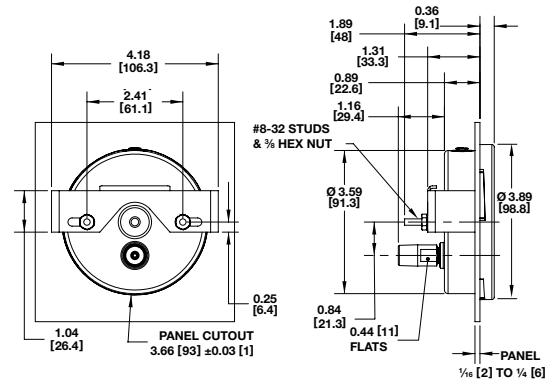
3½" 1009 Lower and Back Connect



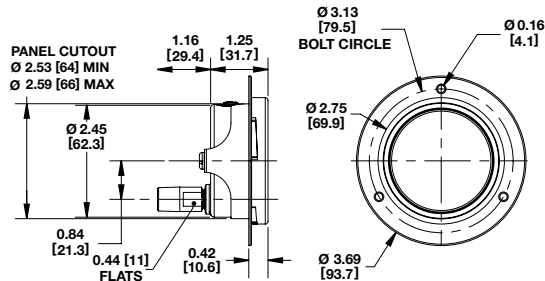
2½" 1009 Back Connect (XUC)



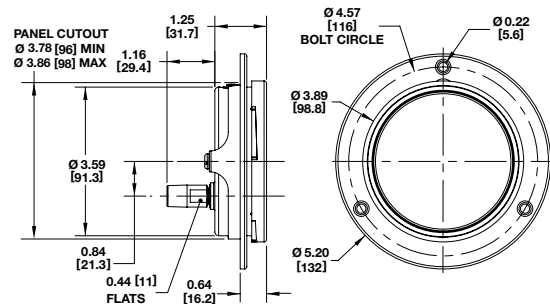
3½" 1009 Back Connect (XUC)



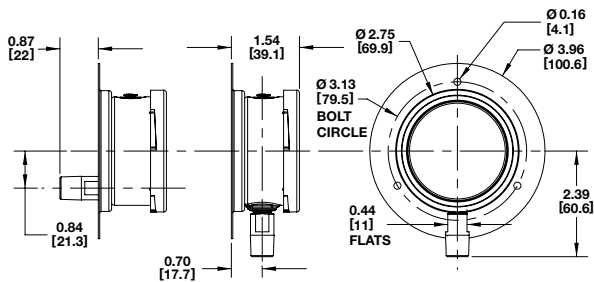
2½" 1009 Back Connect (XFF)



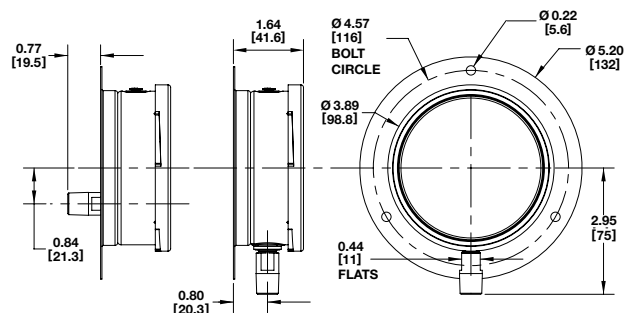
3½" 1009 Back Connect (XFF)



2½" 1009 Lower and Back Connect (XFW)



3½" 1009 Lower and Back Connect (XFW)



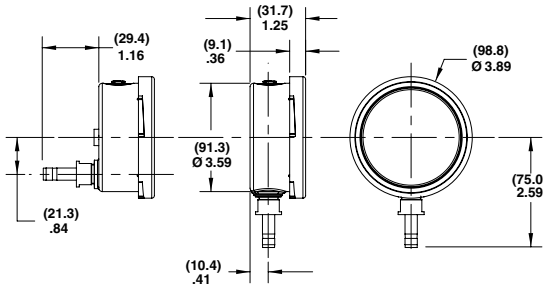
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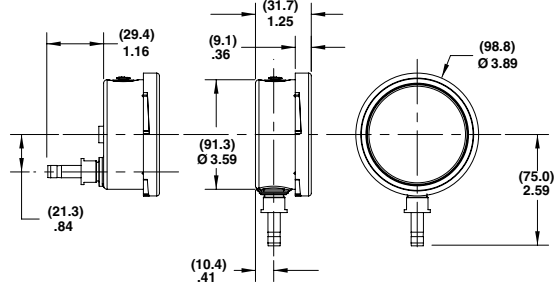
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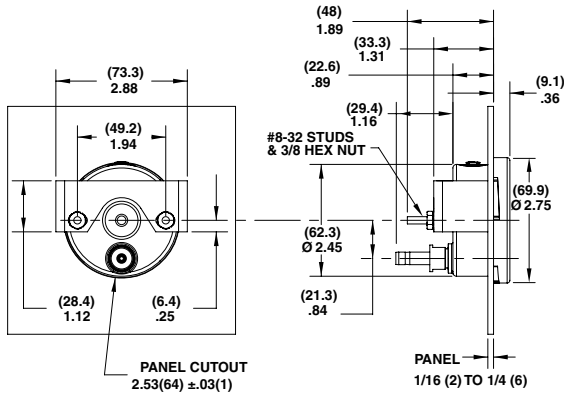
2½" 1009 Lower and Back Connect



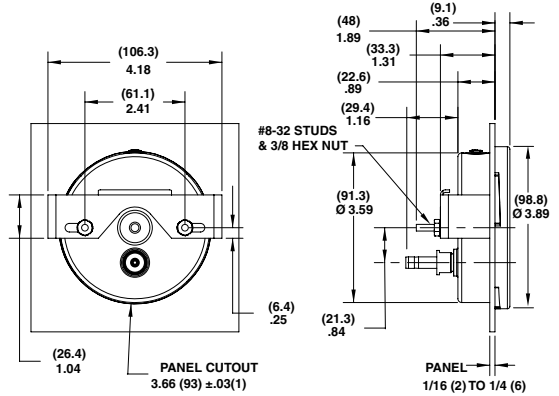
3½" 1009 Lower and Back Connect



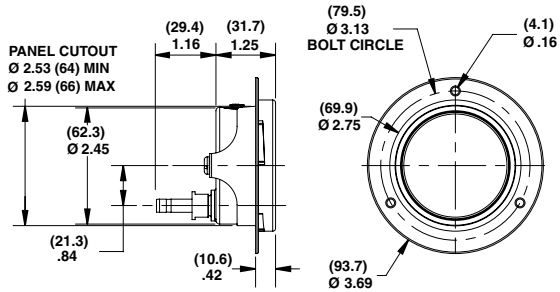
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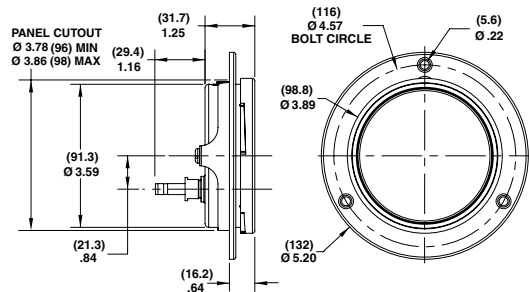
3½" 1009 Back Connect (XUC)



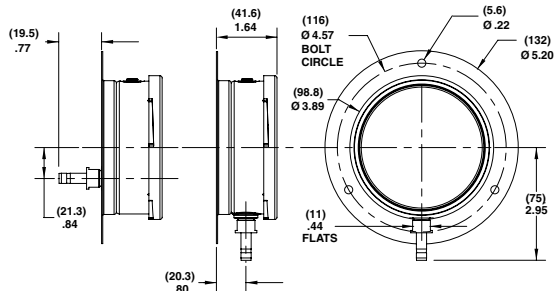
2½" 1009 Back Connect (XFF)



3½" 1009 Back Connect (XFF)



2½" 1009 Lower and Back Connect (XFW)



3½" 1009 Lower and Back Connect (XFW)

