

## 1009 Stainless Steel Case Gauge

### FEATURES

- Meets ASME B40.100 specifications
- Corrosion resistant SS case
- Dry gauges are field fillable
- Power**Flex**™ movement provides superior resistance to shock, vibration and pulsation
- True Zero™ reduces reading errors by using “zero box” instead of conventional dial pins
- **PLUS!**™ performance available for liquid filled performance with a dry gauge
- MSL helium leak tested to  $1 \times 10^{-6}$  scc/s
- Ventable fill plug
- Accessory kits for easy panel mounting

### TYPICAL USES

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

### SPECIFICATIONS

|             |                                                                                        |
|-------------|----------------------------------------------------------------------------------------|
| Accuracy:   | ASME B40.100, Grade 1A, $\pm 1\%$ of span (Dry)<br>$\pm 1.5\%$ of span (Liquid filled) |
| Dial Sizes: | 2½" (63mm), 3½" (100mm)                                                                |
| Ranges:     | Minimum 0-15 psi, maximum 0-15,000 psi, vacuum and compound                            |

#### Wetted Materials

|                     |                                                    |
|---------------------|----------------------------------------------------|
| Tube:               | 316L SS tube                                       |
| Process Connection: | 316L SS socket (SW)<br>Aluminum bronze socket (AW) |

#### Non Wetted Materials

|                    |                                                                                                                                                                                    |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Window:            | Polycarbonate (Std.), Safety glass (XSG), Polysulfone (XPS) 3½" Dial only                                                                                                          |
| Dial:              | Black figures on white background, aluminum                                                                                                                                        |
| Pointer:           | Black, aluminum, adjustable (Std.), micrometer (XMP)                                                                                                                               |
| Movement:          | Power <b>Flex</b> movement<br>Bottom plate – 304 SS<br>Upper plate – 304 SS<br>Pin – 304 SS<br>Hairspring assembly – 304 SS<br>Pinion – 304 SS<br>Segment – Glass filled polyester |
| Case:              | 304 SS (Std.), 316L SS (XYW)                                                                                                                                                       |
| Ring:              | 304 SS (Std.), 316L SS (XYW)                                                                                                                                                       |
| Process Connection |                                                                                                                                                                                    |
| Location:          | Lower, Back, Top, 3 o'clock, 9 o'clock                                                                                                                                             |
| Process Connection |                                                                                                                                                                                    |
| Sizes:             | ½ NPT, ¼ NPT (see ordering code for more options)                                                                                                                                  |



### KEY BENEFITS

- IP65 Rating
- NEMA 4X
- CRN Approved
- PED
- **PLUS!**™ Performance (XLL)

Dampening: Glycerin case fill (Std. liquid fill), Silicone case fill (XGV), Halocarbon case fill (XGX), **PLUS!** Performance (XLL)

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

Approvals: CRN, RoHS, PED

### MIN/MAX TEMPERATURE LIMITS

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

## Data Sheet

### 1009 Stainless Steel Case Gauge

#### ORDERING CODE

Example: **251009 SW L 02 L XC4 15#**

| Dial Size/Series Code                                                                                 |        |   |    |   |     |     |
|-------------------------------------------------------------------------------------------------------|--------|---|----|---|-----|-----|
| 251009 – SS case                                                                                      | 251009 |   |    |   |     |     |
| 351009 – SS case                                                                                      |        |   |    |   |     |     |
| System                                                                                                |        |   |    |   |     |     |
| AW - 316L SS tube/Aluminum, bronze connection<br>(Max. pressure 1000 psi)                             |        |   |    |   |     |     |
| SW - 316L SS tube/316L SS process connection<br>(Max. pressure 15,000 psi)                            | SW     |   |    |   |     |     |
| Case Fill                                                                                             |        |   |    |   |     |     |
| Dry, liquid fillable case                                                                             |        |   |    |   |     |     |
| L - Liquid filled case (Glycerin standard)                                                            |        | L |    |   |     |     |
| Process Connection Sizes                                                                              |        |   |    |   |     |     |
| 01 - 1/8 NPT Male                                                                                     |        |   |    |   |     |     |
| 02 - 1/4 NPT Male                                                                                     |        |   | 02 |   |     |     |
| 04 - 1/2 NPT Male                                                                                     |        |   |    |   |     |     |
| RW - SAE 7/16 & 20 Straight thread                                                                    |        |   |    |   |     |     |
| EJ - 7/16 X 20 UNF-3A 37° flare                                                                       |        |   |    |   |     |     |
| KJ - 1/4 Straight JIS, BSP - 1009SW                                                                   |        |   |    |   |     |     |
| KA - 1/4 Tapered JIS, BSP - 1009SW                                                                    |        |   |    |   |     |     |
| 13 - G 1/4" DIN                                                                                       |        |   |    |   |     |     |
| JP - 1/4" Tubing, no throttle plug (max pressure 10,000 psi)                                          |        |   |    |   |     |     |
| JQ - 6mm Tubing, no throttle plug (max pressure 6,000 psi)                                            |        |   |    |   |     |     |
| JL - 9/16" 18 UNF-2A, N/A on 25 1009 lower                                                            |        |   |    |   |     |     |
| Connection Location                                                                                   |        |   |    |   |     |     |
| L - Lower mount connection                                                                            |        |   |    | L |     |     |
| B - Lower back mount connection                                                                       |        |   |    |   |     |     |
| D - Side connection (3 o'clock)                                                                       |        |   |    |   |     |     |
| E - Side connection (9 o'clock)                                                                       |        |   |    |   |     |     |
| T - Top connection                                                                                    |        |   |    |   |     |     |
| <b>Options (if choosing an option(s) must include an "X")</b>                                         |        |   |    |   | X__ |     |
| LL - <b>PLUS!</b> ™ performance                                                                       |        |   |    |   |     |     |
| GV - Silicone case fill                                                                               |        |   |    |   |     |     |
| GX - Halocarbon case fill                                                                             |        |   |    |   |     |     |
| TU - Throttle plug for ranges up to 1000 psi                                                          |        |   |    |   |     |     |
| TS - Throttle plug for ranges up to 15,000 psi                                                        |        |   |    |   |     |     |
| 6B - Cleaned for oxygen service                                                                       |        |   |    |   |     |     |
| SG - Safety glass                                                                                     |        |   |    |   |     |     |
| PS - Polysulfone window (3 1/2" dial only)                                                            |        |   |    |   |     |     |
| EO - Adjustable red set hand                                                                          |        |   |    |   |     |     |
| SH - Red set hand, stationary                                                                         |        |   |    |   |     |     |
| NH - SS tag wired to case                                                                             |        |   |    |   |     |     |
| FF - Front flange                                                                                     |        |   |    |   |     |     |
| FW - Back flange                                                                                      |        |   |    |   |     |     |
| UC - U-clamp                                                                                          |        |   |    |   |     |     |
| EA - External zero adjust (3 1/2" dial only)                                                          |        |   |    |   |     |     |
| C4 - Individual calibration chart in accordance with ASME B40.100:2013. Accuracy traceable to N.I.S.T |        |   |    |   | C4  |     |
| SM - All SS movement                                                                                  |        |   |    |   |     |     |
| YW - 316L SS case and ring                                                                            |        |   |    |   |     |     |
| Range (coding examples only, see range table for all standard ranges)                                 |        |   |    |   |     |     |
| Single Scales                                                                                         |        |   |    |   |     |     |
| 15# - 15 psi                                                                                          |        |   |    |   |     | 15# |
| 1BR - 1 bar                                                                                           |        |   |    |   |     |     |
| 1KSC - 1 kilograms per sq. cm                                                                         |        |   |    |   |     |     |
| 100KP - 100 kilopascal                                                                                |        |   |    |   |     |     |
| Dual Scales                                                                                           |        |   |    |   |     |     |
| 15#/BR - 15 psi inner scale, 1 bar outer scale                                                        |        |   |    |   |     |     |
| 1BR/# - 1 bar inner scale, 15 psi outer scale                                                         |        |   |    |   |     |     |

## Data Sheet

### 1009 Stainless Steel Case Gauge

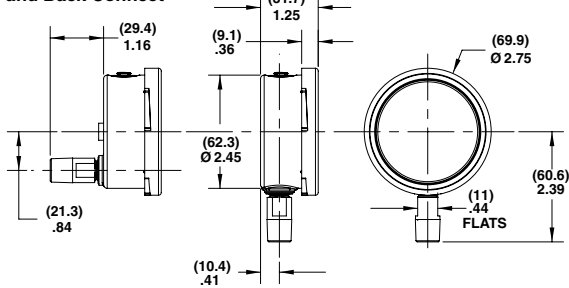
| STANDARD RANGES |          |            |           |                    |
|-----------------|----------|------------|-----------|--------------------|
| psi             | bar      | kPa        | Mpa       | kg/cm <sup>2</sup> |
| 30IMV           | -1BR     | -100KP     | -.1MP     | -1KSC              |
| -               | -1&.6BR  | -100&60KP  | -.1&.06MP | -1&.6KSC           |
| 30IMV&15#       | -        | -          | -         | -                  |
| -               | -1&1.5BR | -100&150KP | -.1&.15MP | -1&1.5KSC          |
| 30IMV&30#       | -        | -          | -         | -                  |
| -               | -1&3BR   | -100&300KP | -.1&.3MP  | -1&3KSC            |
| 30IMV&60#       | -        | -          | -         | -                  |
| -               | -1&5BR   | -100&500KP | -.1&.5MP  | -1&5KSC            |
| 30IMV&100#      | -        | -          | -         | -                  |
| -               | 1&9BR    | -100&900KP | -.1&.9MP  | -1&9KSC            |
| 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           |

# Data Sheet

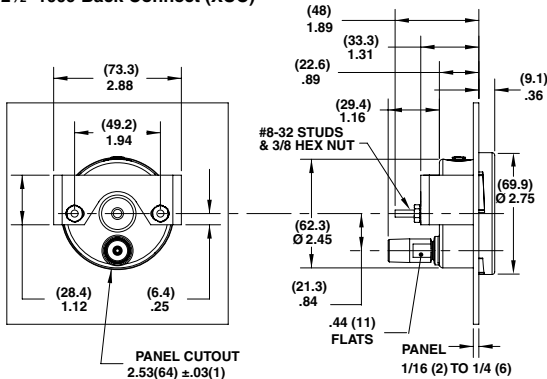
## 1009 Stainless Steel Case Gauge

### DIMENSIONS (dimensions in [ ] are millimeters)

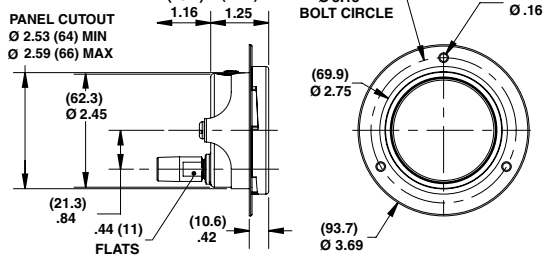
**2½" 1009 Lower and Back Connect**



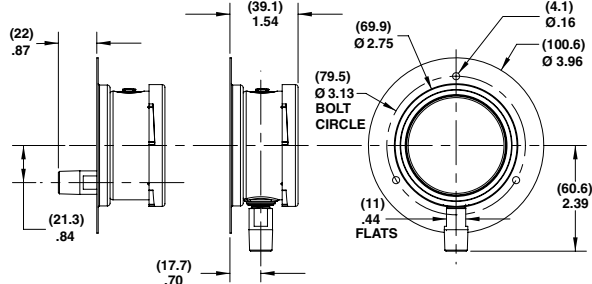
**2½" 1009 Back Connect (XUC)**



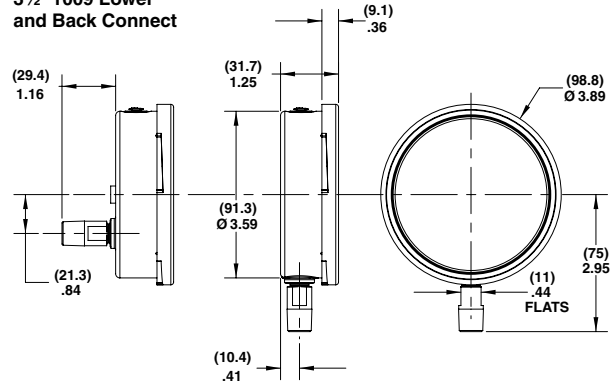
**2½" 1009 Back Connect (XFF)**



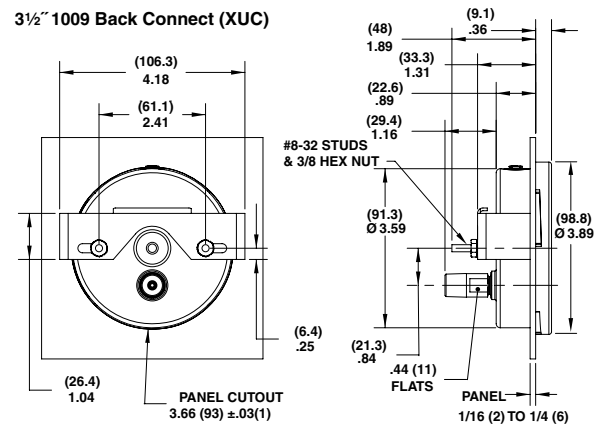
**2½" 1009 Lower and Back Connect (XFW)**



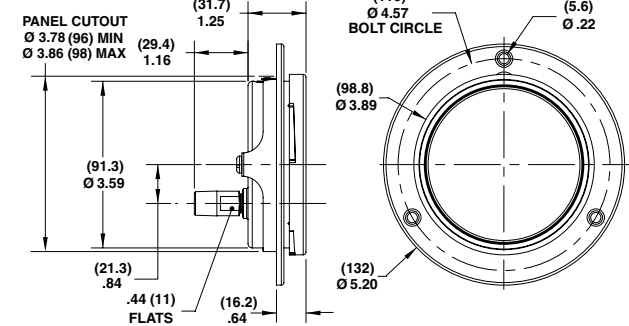
**3½" 1009 Lower and Back Connect**



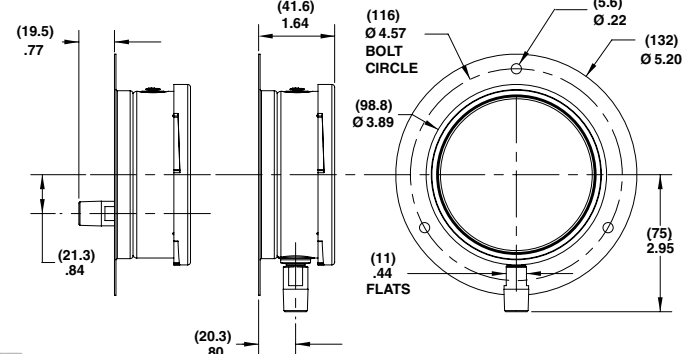
**3½" 1009 Back Connect (XUC)**



**3½" 1009 Back Connect (XFF)**



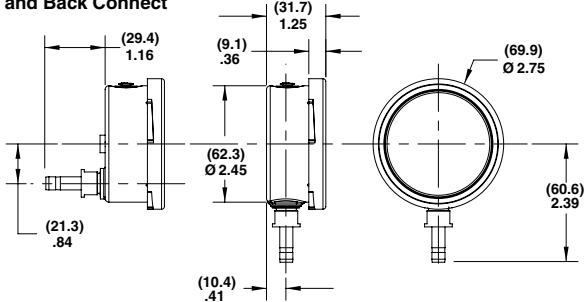
**3½" 1009 Lower and Back Connect (XFW)**



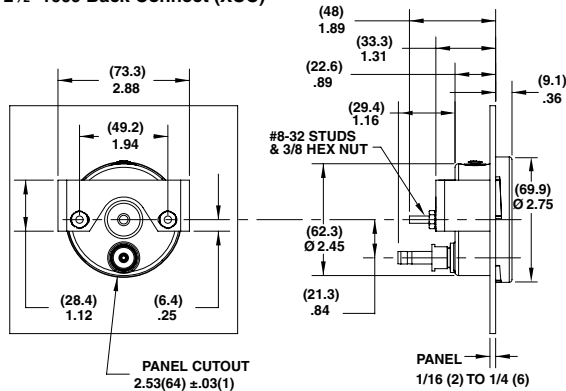
## 1009 Stainless Steel Case Gauge with Tubing Connections

### DIMENSIONS (dimensions in [ ] are millimeters)

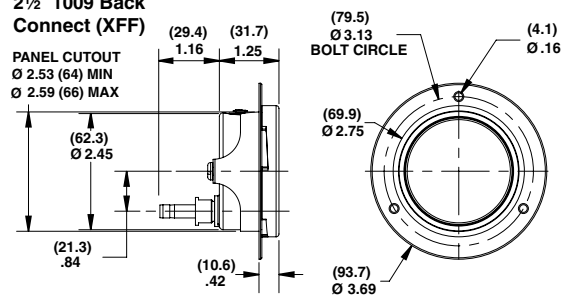
**2½" 1009 Lower and Back Connect**



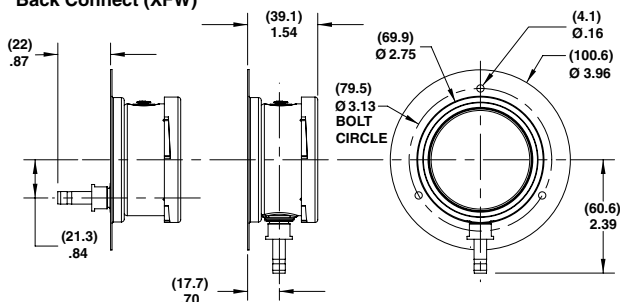
**2½" 1009 Back Connect (XUC)**



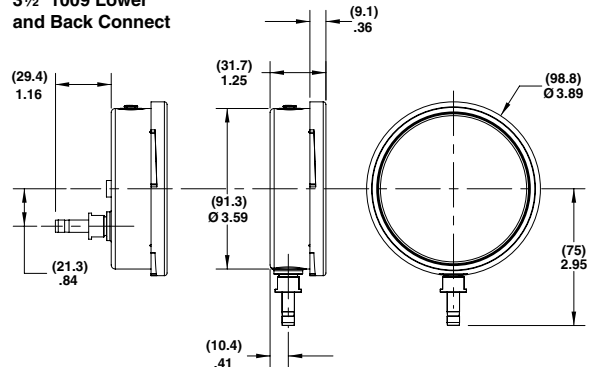
**2½" 1009 Back Connect (XFF)**



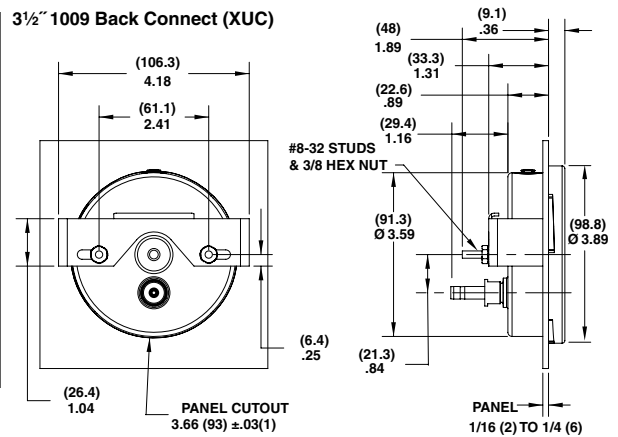
**2½" 1009 Lower and Back Connect (XFW)**



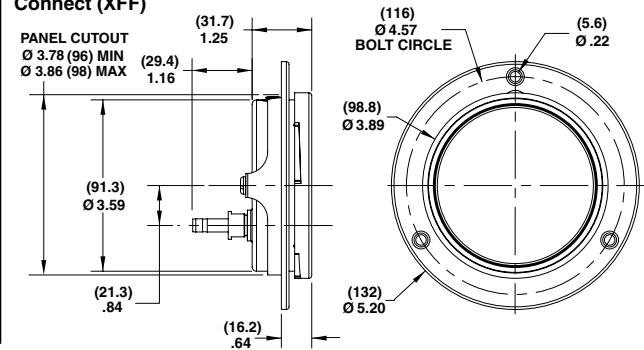
**3½" 1009 Lower and Back Connect**



**3½" 1009 Back Connect (XUC)**



**3½" 1009 Back Connect (XFF)**



**3½" 1009 Lower and Back Connect (XFW)**

