

## Data Sheet

# 1009 Stainless Steel Case Gauge

### FEATURES

- Meets ASME B40.100 specifications
- Corrosion resistant stainless steel case
- Dry gauges are field fillable
- PowerFlex™ 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 1X10<sup>-6</sup> 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, ±1% of span (Dry) ±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 Stainless steel tube
Process Connection:	316L Stainless steel socket (SW) 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:	PowerFlex movement Bottom plate – 304 Stainless steel Upper plate – 304 Stainless steel Pin – 304 Stainless steel Hairspring assembly – 304 Stainless steel Pinion – 304 Stainless steel Segment – Glass filled polyester

Case:	304 Stainless steel (Std.), 316L Stainless steel (XYW)
Ring:	304 Stainless steel (Std.), 316L Stainless steel (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)

# 1009 Stainless Steel Case Gauge

## ORDERING CODE

Example: **251009 SW L 02 L XC4 3000#**

<b>Dial Size/Series Code</b>							
251009 – Stainless steel case	251009						
351009 – Stainless steel case							
<b>System</b>							
AW - 316L SS tube/Aluminum, bronze connection (Max. pressure 1000 psi)							
SW - 316L SS tube/316L SS process connection (Max. pressure 15,000 psi)		SW					
<b>Case Fill</b>							
Dry, liquid fillable case							
L - Liquid filled case (Glycerin standard)			L				
<b>Process Connection Sizes</b>							
01 - 1/8 NPT Male							
02 - 1/4 NPT Male				02			
04 - 1/2 NPT Male							
RW - SAE 1/16 & 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, N/A with throttle plug							
JQ - 6mm Tubing, N/A with throttle plug, N/A ranges above 6000 psi							
JL - 9/16" 18 UNF-2A, N/A for 251009							
<b>Connection Location</b>							
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</b>							
LL - <b>PLUS!</b> ™ performance							
GV - Silicone case fill							
GX - Halocarbon case fill							
TU - Throttling device for ranges up to 1000 psi							
TS - Throttling device 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 - Stainless steel tag wired to case							
FF - Front flange							
FW - Back flange							
UC - U-clamp							
AB - Gauges calibrated to compensate for absolute pressure							
KH - Custom calibration requirements							
HY - Hydrostatic/pneumatic testing system pressurized to 150% of rated system pressure for 5 minutes. Overload stop standard							
C4 - Individual calibration chart in accordance with ASME B40.100:2013. Accuracy traceable to N.I.S.T C4							
SM - All stainless steel movement							
YW - 316L Stainless steel case and ring							
<b>Range (coding examples only, see range table for all standard ranges)</b>							
<b>Single Scales</b>							
15# - 15 psi							3000#
1BR - 1 bar							
1KSC - 1 kilograms per sq. cm							
100KP - 100 kilopascal							
<b>Dual Scales</b>							
15#/BR - 15 psi inner scale, 1 bar outer scale							
1BR/# - 1 bar inner scale, 15 psi outer scale							

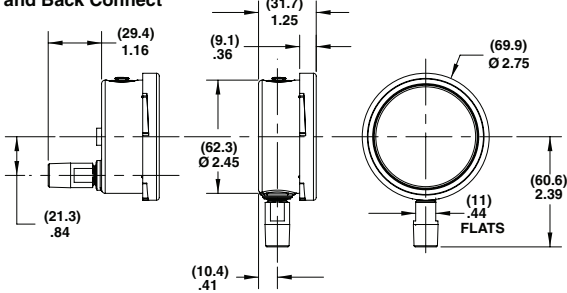
## 1009 Stainless Steel Case Gauge

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.KSC
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	1000KP	1MP	10KSC
160#	-	-	-	-
200#	-	-	-	-
-	16BR	1600KP	1.6MP	16KSC
300#	-	-	-	-
-	25BR	2500KP	2.5MP	25KSC
400#	-	-	-	-
500#	-	-	-	-
600#	40BR	4000KP	4MP	40KSC
800#	-	-	-	-
-	60BR	6000KP	6MP	60KSC
1000#	-	-	-	-
1500#	100BR	10000KP	10MP	100KSC
2000#	-	-	-	-
-	160BR	16000KP	16MP	160KSC
3000#	-	-	-	-
-	250BR	25000KP	25MP	250KSC
4000#	-	-	-	-
5000#	-	-	-	-
6000#	400BR	40000KP	40MP	400KSC
8000#	-	-	-	-
-	600BR	60000KP	60MP	600KSC
10000#	-	-	-	-
15000#	1000BR	100000KP	100MP	1000KSC

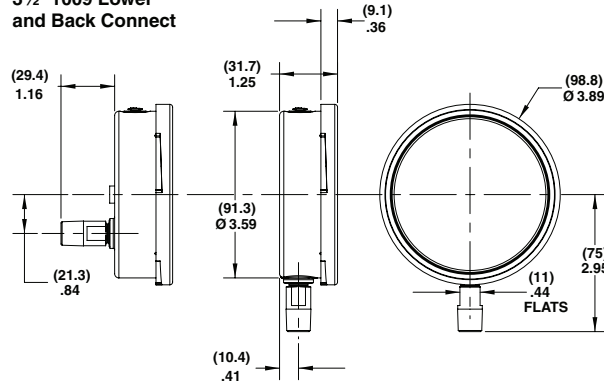
# 1009 Stainless Steel Case Gauge

## DIMENSIONS (dimensions in [ ] are millimeters)

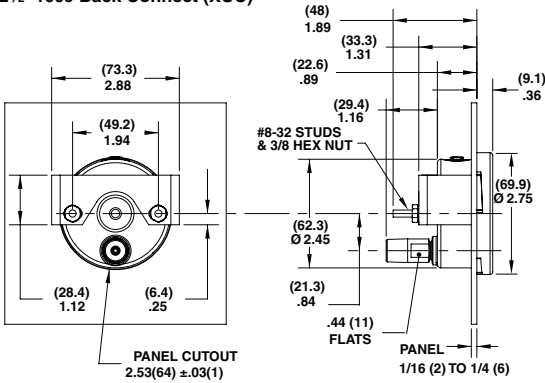
**2½" 1009 Lower and Back Connect**



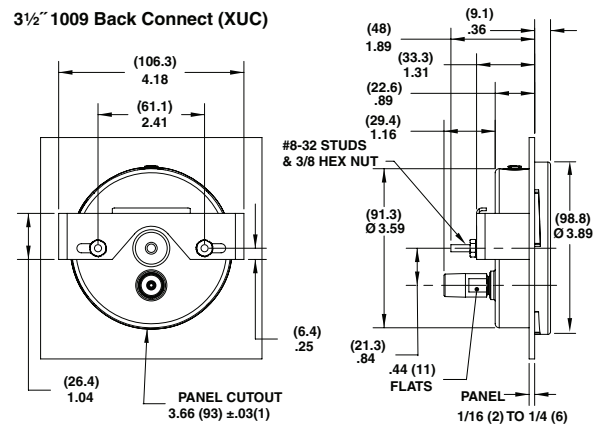
**3½" 1009 Lower and Back Connect**



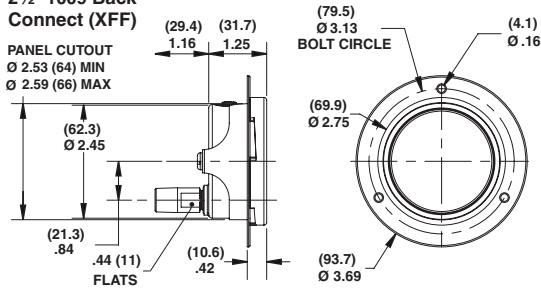
**2½" 1009 Back Connect (XUC)**



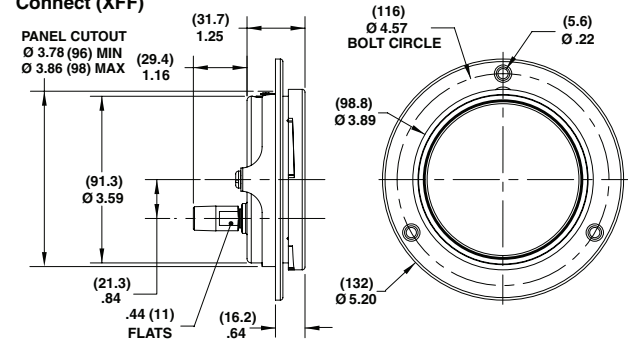
**3½" 1009 Back Connect (XUC)**



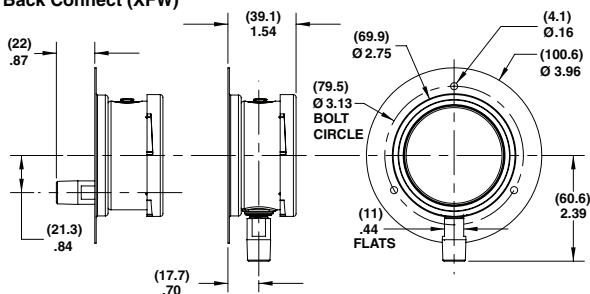
**2½" 1009 Back Connect (XFF)**



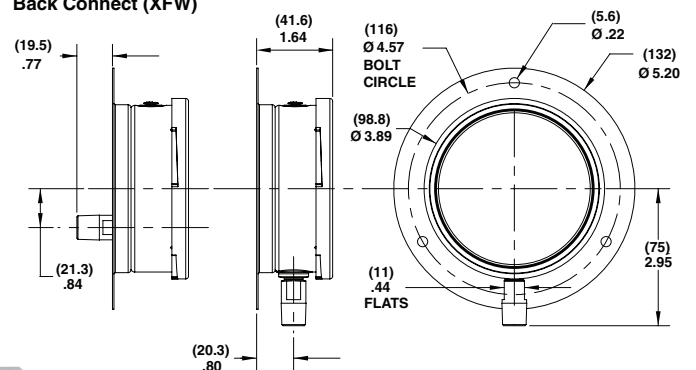
**3½" 1009 Back Connect (XFF)**



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



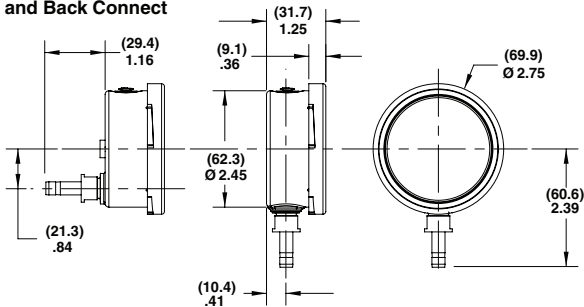
**3½" 1009 Lower and Back Connect (XFW)**



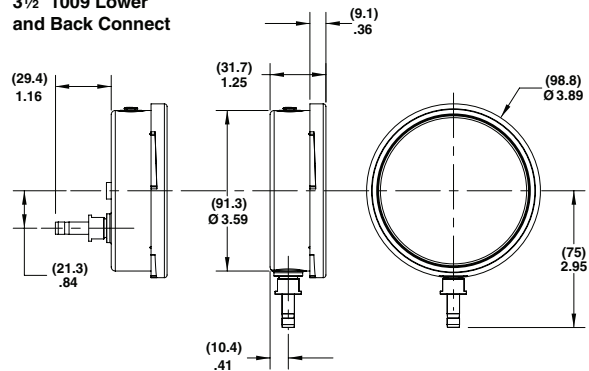
# 1009 Stainless Steel Case Gauge with Tubing Connections

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

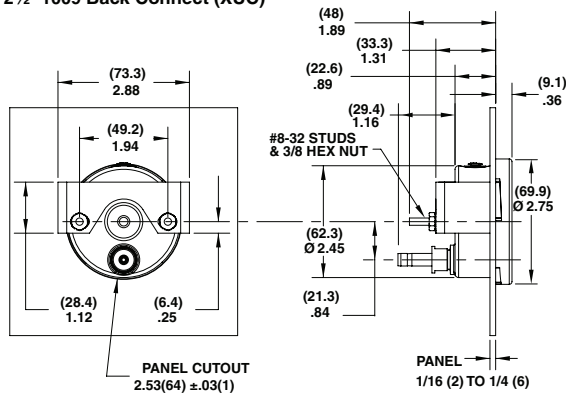
**2½" 1009 Lower and Back Connect**



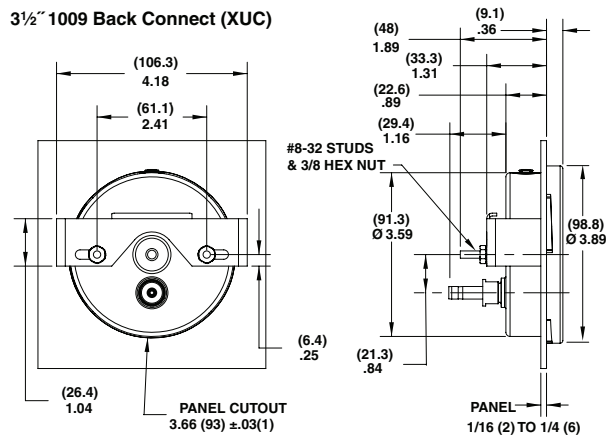
**3½" 1009 Lower and Back Connect**



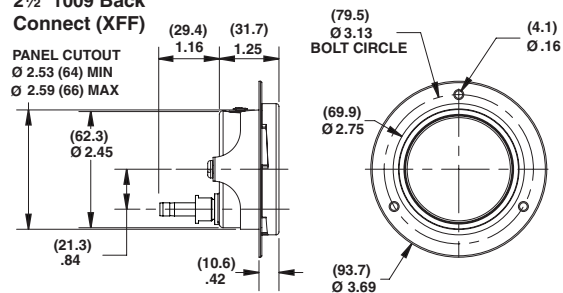
**2½" 1009 Back Connect (XUC)**



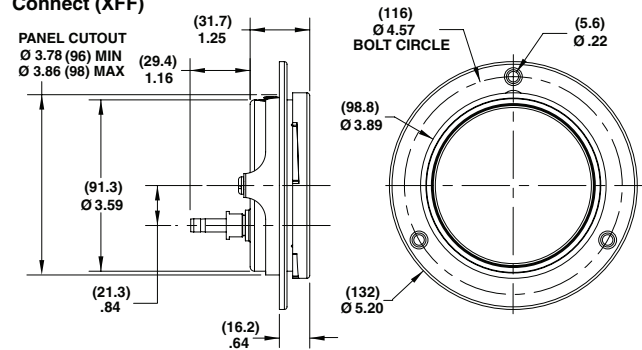
**3½" 1009 Back Connect (XUC)**



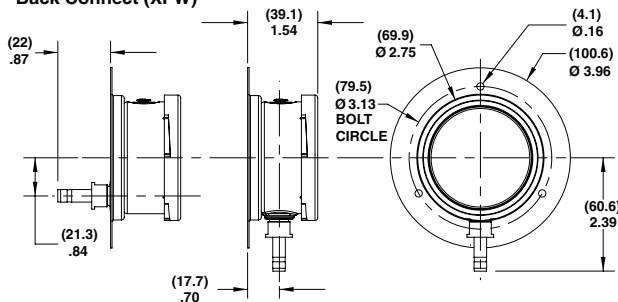
**2½" 1009 Back Connect (XFF)**



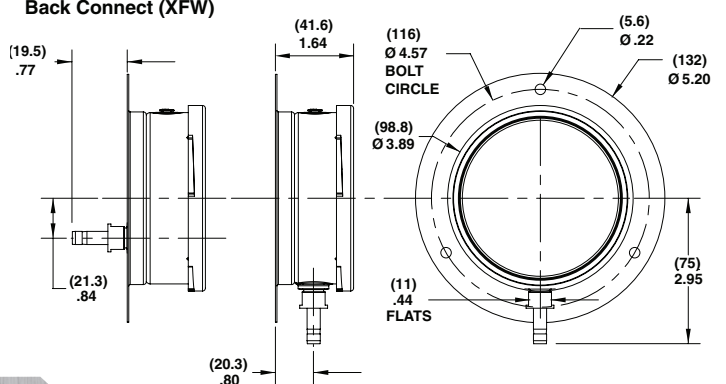
**3½" 1009 Back Connect (XFF)**



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



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



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