

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

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 4 (Plug closed)

Mounting Option: U-clamp, front or back flange

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

Approval: RoHS, CRN, CE/UKCA

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



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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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)			SW					
Case Fill								
(blank) Dry gauge								
L - Liquid filled case (glycerin standard)				L				
Process Connection Size								
01 - 1/8 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 - 6mm 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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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	

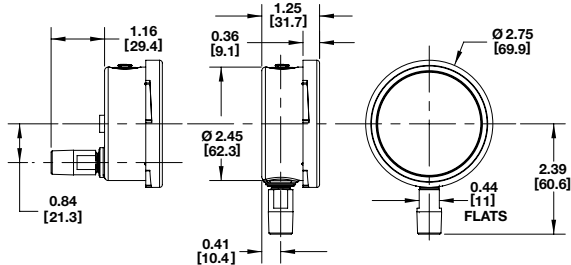
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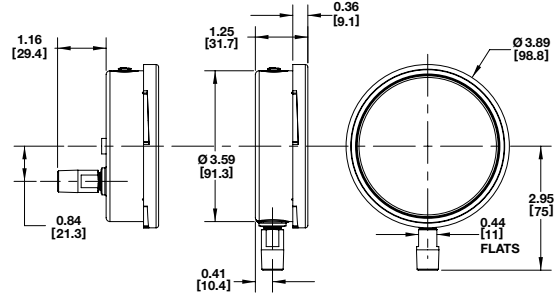
DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

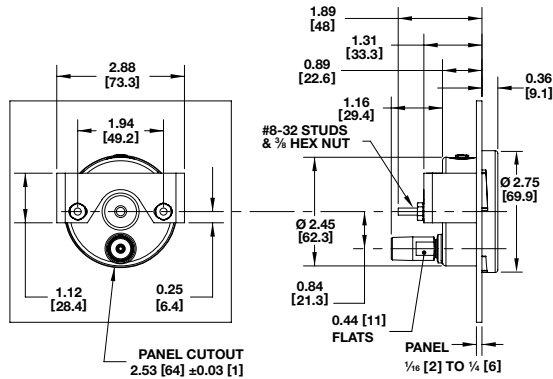
2½" 1009 Lower and Back Connect



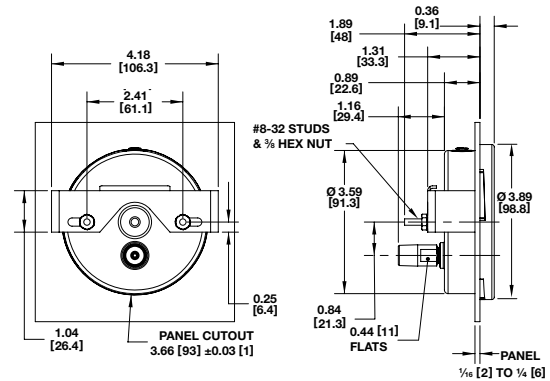
3½" 1009 Lower and Back Connect



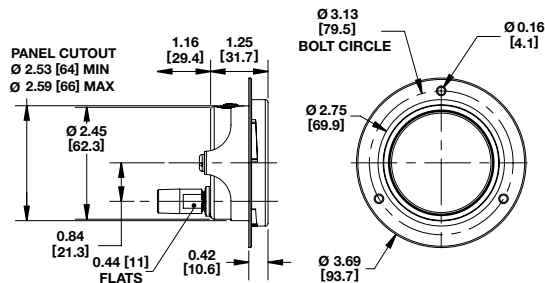
2½" 1009 Back Connect (XUC)



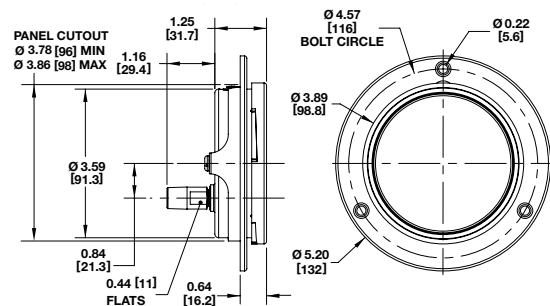
3½" 1009 Back Connect (XUC)



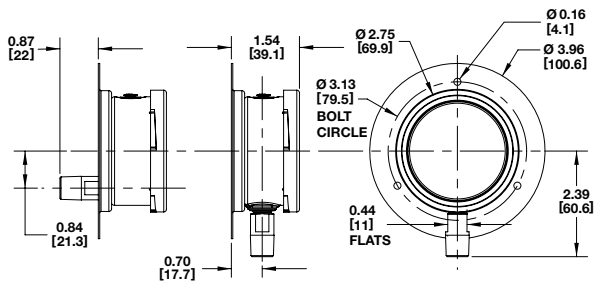
2½" 1009 Back Connect (XFF)



3½" 1009 Back Connect (XFF)



2½" 1009 Lower and Back Connect (XFW)



3½" 1009 Lower and Back Connect (XFW)

