

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 1×10^{-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, NSF-61

WETTED COMPONENTS

Model	Bourdon Tube	Process Connection Material
SW	316 Stainless steel	316L Stainless steel
AW	316 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 - 316 SS tube/aluminum, bronze connection (max. pressure 1,000 psi)								
SW - 316 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 BSP - 1009SW								
KA - ¼" Tapered JIS - 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)								

Data Sheet

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 double								
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/cm²
	Vacuum				
Compound	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#	–	–	–	–
	30IMV&300#	–	–	–	–
	–	N1/9BR	N100/900KP	N0.1/9MP	N1/9KG
Positive Pressure	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

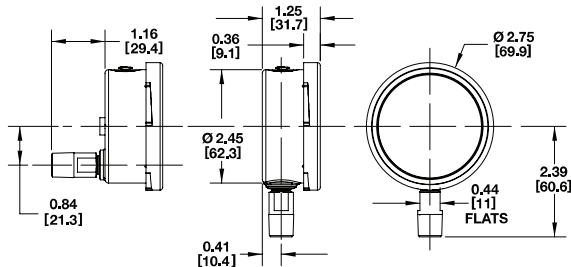
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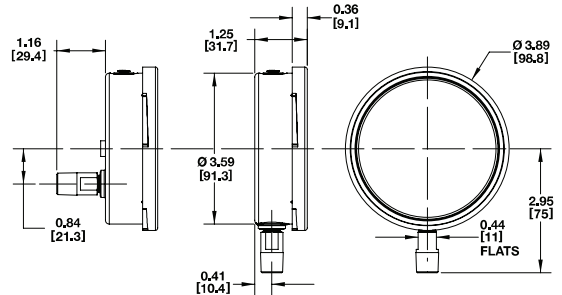
DIMENSIONS in [] are millimeters

For reference only, consult Ashcroft for specific dimensional drawings

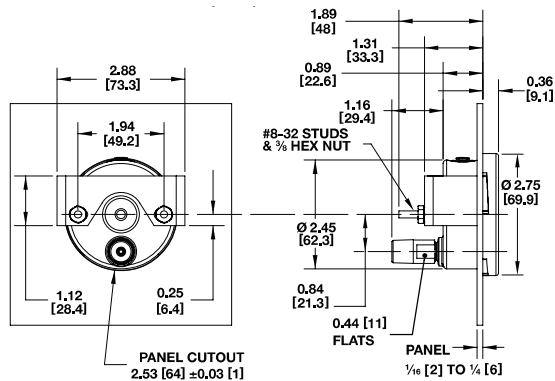
2½" 1009 Lower and Back Connect



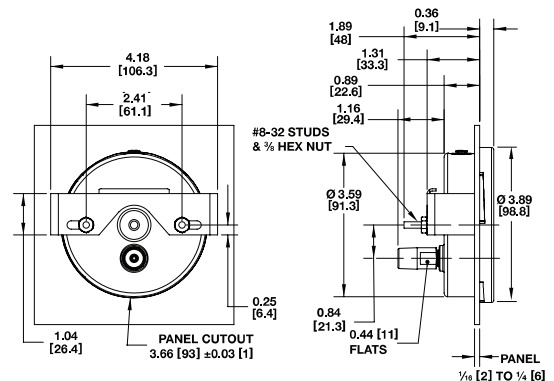
3½" 1009 Lower and Back Connect



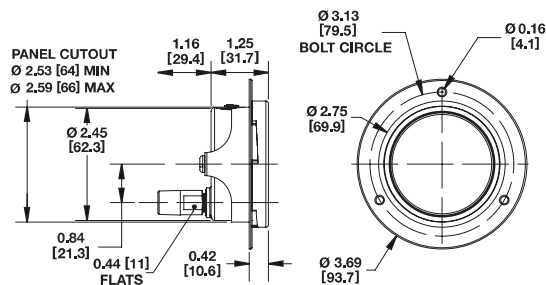
2½" 1009 Back Connect (XUC)



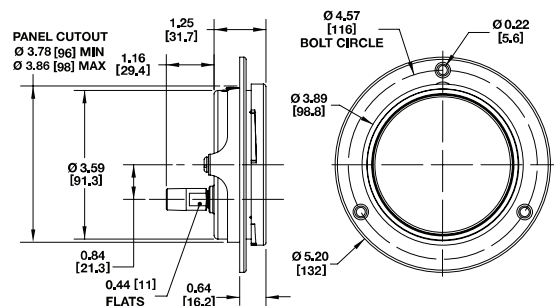
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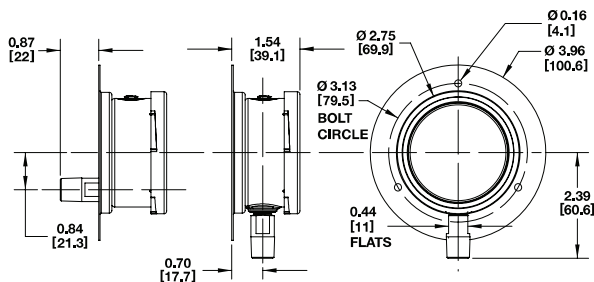
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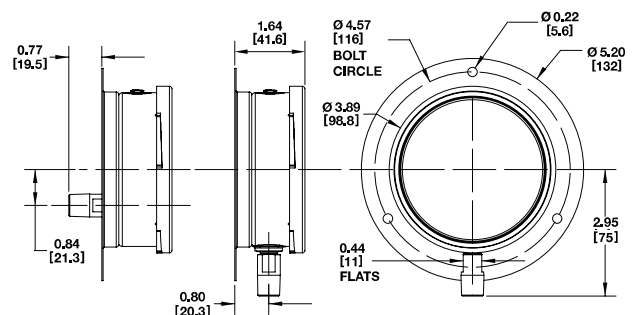
3½" 1009 Back Connect (XFF)



2½" 1009 Lower and Back Connect (XFW)



3½" 1009 Lower and Back Connect (XFW)



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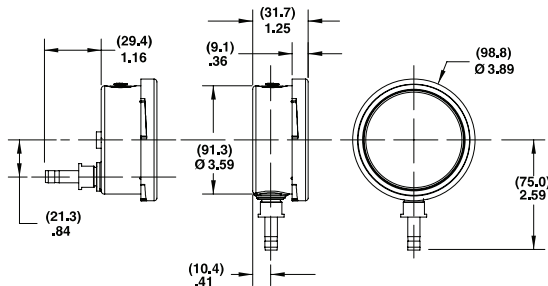
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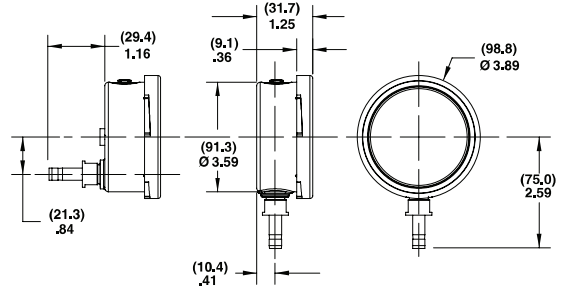
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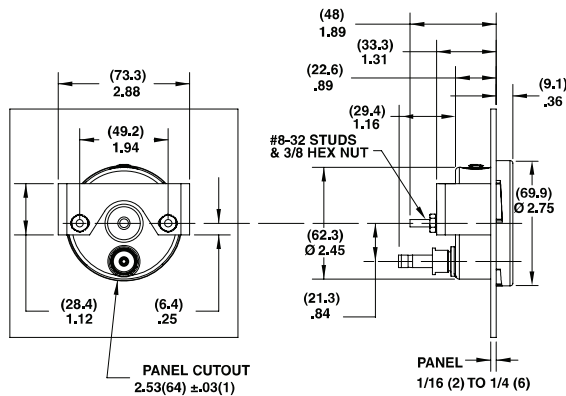
2½" 1009 Lower and Back Connect



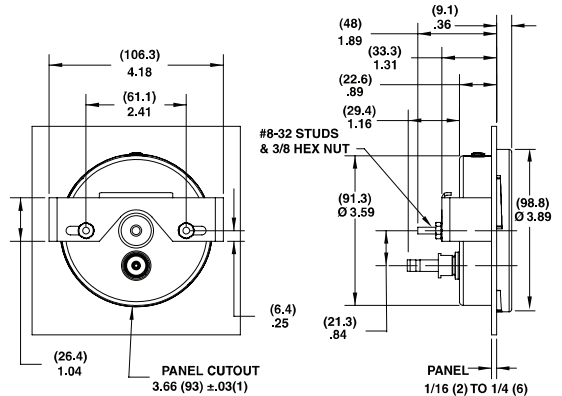
3½" 1009 Lower and Back Connect



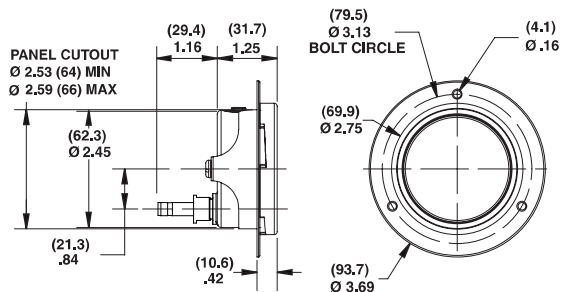
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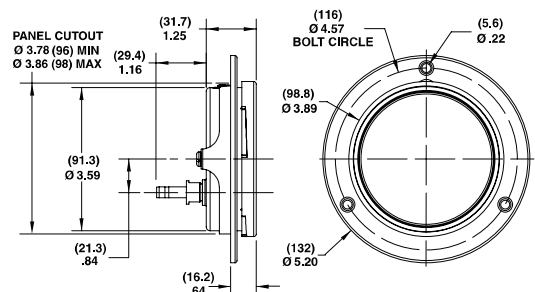
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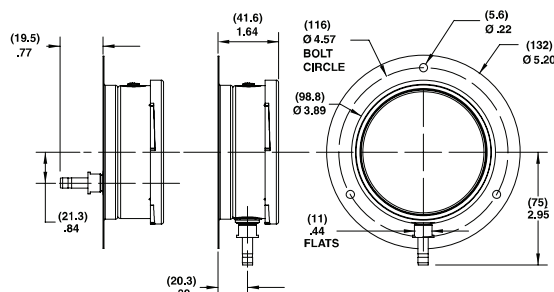
2½" 1009 Back Connect (XFF)



3½" 1009 Back Connect (XFF)



2½" 1009 Lower and Back Connect (XFW)



3½" 1009 Lower and Back Connect (XFW)

