

Pressure Sensor Hydraulic & Pneumatic









Versa Products Company, Inc., 22 Spring Valley Rd., Paramus, NJ 07652 USA Phone: (201)843-2400 Fax: (201)843-2931

Versa BV, Prins Willem Alexanderlaan 1427, 7312 GB Apeldoorn, The Netherlands Phone: +31-55-368-1900 Fax: +31-55-368-1909

E-mail: sales@versa-valves.com

High/Low Pressure Sensor

General Description

The Versa pneumatic/hydraulic pressure sensor is a 3-way block and bleed or a 2-way bleed, 2 position valve that is operated by pressure acting on a piston opposing an adjustable spring force. It functions as either a normally closed or normally open valve, depending on which of the two "IN" ports the instrument pressure is supplied. These ports are marked as HI or LO on the valve body.

The output port, marked 'OUT', is the same for either mode of operation. Pressure changes at the sensor

port, outside the set point range, will cause the valve to operate or shift.

The use of two pilot sensors mounted on a common manifold allows for a high/low pressure sensor system. One sensor functions as a low pressure cut off and the other as high pressure limit, protecting your system from pressure extremes in a complete, easy to mount package.

These sensors are also known as Stick Pilots.

Easy adjusting with large wrench flats

Bubble tight sealing designed for air, gas or hydraulic service

316 investment cast cap for trouble free adjustment in corrosive environments

High flow "Tri-Orifice" body design

One plunger/one valve for 3 or 2 way, NC or NO functions

> Investment cast 316 body for optimum size, weight reduction and high flow valve passages

> > Balanced high flow valve plunger for universal high or low pressure sensor applications

All 316 stainless steel

Integral tagout hole, standard

All 316 stainless steel design for harshest of media and environmental applications

Tamper resistant lock nut, standard

3-way (or 2-way) universal valve

All wetted parts NACE compliant

Dual thread Sensor port 1/2" NPT male 1/4" NPT female Ports marked HI - LO for high and low trip pressure connections

> Ease of installation with the choice of 3 mounting means; panel mount, holes in body or optional bracket.

1-7/8" diameter panel mount



Optional wall bracket (-AB)

Valve	
Function:	3-way Universal
Media:	Pneumatic and Hydraulic
Pressure:	10 - 150 psi (0.7 - 10.3 bar)
Cv:	0.12
Port Size:	¼" NPT F
Temperature Range:	5 to 250°F (-15°C to 121°C) -31°F to 149°F (-35°C to 65°C) (-44) -67°F to 194°F (-55°C to 90°C) (-T40)

Sensor	
Pressure:	20 to 10,000 psi (1.4 to 690 bar) Consult factory for 20,000 psi (1379 bar)
Media:	Pneumatic and Hydraulic
Dead Band:	< 5% of full range
Repeatability:	1% of pressure setting
Port Size:	1/2" NPT M & 1/4" NPT F
Mounting:	Bracket, body mounting holes (3) or panel mount for 1-7/8" diameter hole
Adjustment means:	Rotating spring cap. Features a wrench flat and hole for "tagout"

Pilot Pressure Range*				
Part Number	Supply Pressure	Piston Size	Max Pressure	
911	20-140 psi	2.25"	13000 psi	
912	50-260 psi	1.68"	6700 psi	
913	200-1500 psi	0.69"	15000 psi	
913A	500-3000 psi	0.50"	15000 psi	
914	1000-5000 psi	0.35"	15000 psi	
915	2500-10000 psi	0.27"	14000 psi	

Materials**				
Body:	316 Stainless steel			
Spring:	17 - 7 Stainless steel			
Seals:	FKM			
Lock Nut:	316 Stainless steel			
Adjusting Cap:	316 Stainless steel			
Internal Parts:	316 Stainless steel			

Suffix	Description
-44	Seals, low temperature Buna
-T40	Seals, low temperature Fluorosilicone
-43E	Panel mounting nut
-AB	Mounting bracket supplied with additional nut
-BAC	Engineered Polymer Spring Cap
-NA	NACE (inconel spring)

*Guidance for pressure range

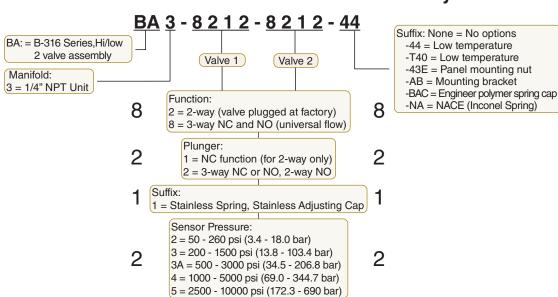
If desired pilot pressure is, for example, 80 psi and there's an overlap of 2 pressure ranges of 20 – 140 psi and 50 – 260 psi. For better deadband performance: choose 20 – 140 psi. For easier spring cap adjustment: choose 50 – 260 psi.

**All NACE compliant materials except adjusting spring. For full NACE valve add -NA

Single Unit Pressure Sensor BAA - 8 3 0 2 - 91 2 - 44 Suffix: None = No options BAA: B-316 Series -44 = Low temperature -T40 = Low temperature -43E = Panel mounting nut Function: -AB = Mounting bracket 2 = 2-way (valve plugged at factory) -BAC = Engineer polymer spring cap 8 = 3-way NC and NO (universal flow) -NA = NACE (Inconel Spring) Sensor Pressure: Size: 3 = 1/4" Size 2 = 50 - 260 psi (3.4 - 18.0 bar) 3 = 200 - 1500 psi (13.8 - 103.4 bar) Body: 0 = Side ported 3A = 500 - 3000 psi (34.5 - 206.8 bar) 4 = 1000 - 5000 psi (69.0 - 344.7 bar) 5 = 2500 - 10000 psi (172.3 - 690 bar) 1 = NC function (for 2-way only) 2 = 3-way NC or NO, 2-way NO 91 = Pilot Action, adjustable spring return

Single Unit Pressure Sensor BAA-8302-914 Shown

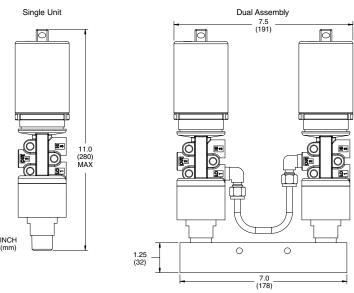
High/Low Pressure Sensor 2 Valve Assembly

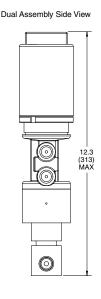




High/Low Pressure Sensor 2 Valve Assembly BA3-8213-8214 Shown

Dimensions





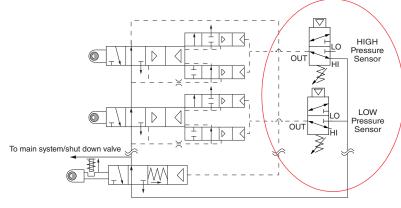
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Applications

Well Head Control

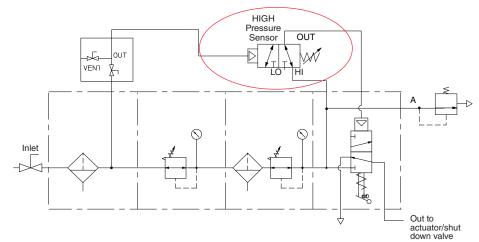
Typical First Out Indicator





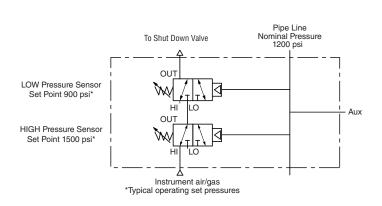
Pipeline Control Over Pressure Protection





High-Low Trip System Manifold Assembly





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