



Pressure Sensor Hydraulic & Pneumatic



High/Low Pressure Sensor

General Description

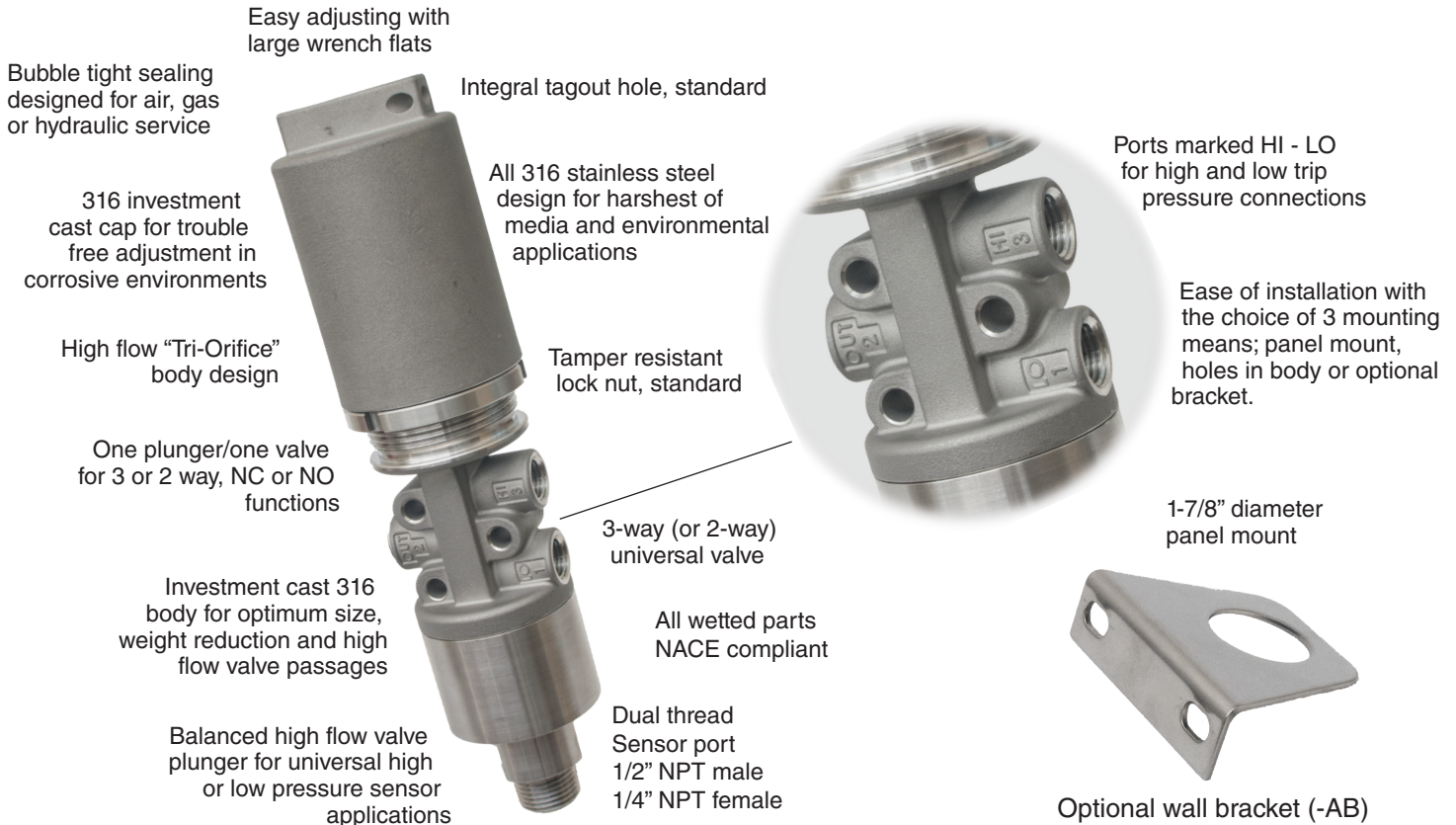
The Versa pneumatic/hydraulic pressure sensor is a 3-way block and bleed or a 2-way bleed, 2 position valve that is operated by pressure acting on a piston opposing an adjustable spring force. It functions as either a normally closed or normally open valve, depending on which of the two "IN" ports the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



Valve	
Function:	3-way Universal
Media:	Pneumatic and Hydraulic
Pressure:	10 - 150 psi (0.7 - 10.3 bar)
Cv:	0.12
Port Size:	1/4" 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



BAA: B-316 Series

Function:
2 = 2-way (valve plugged at factory)
8 = 3-way NC and NO (universal flow)

Size: 3 = 1/4" Size

Body: 0 = Side ported

Plunger:
1 = NC function (for 2-way only)
2 = 3-way NC or NO, 2-way NO

Suffix: None = No options
-44 = Low temperature
-T40 = Low temperature
-43E = Panel mounting nut
-AB = Mounting bracket
-BAC = Engineer polymer spring cap
-NA = NACE (Inconel Spring)

Sensor Pressure:
2 = 50 - 260 psi (3.4 - 18.0 bar)
3 = 200 - 1500 psi (13.8 - 103.4 bar)
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)

Actuator:
91 = Pilot Action, adjustable spring return

Single Unit Pressure Sensor
BAA-8302-914
Shown

High/Low Pressure Sensor 2 Valve Assembly

BA 3 - 8 2 1 2 - 8 2 1 2 - 44

BA: = B-316 Series, Hi/low
2 valve assembly

Manifold:
3 = 1/4" NPT Unit

Valve 1

Valve 2

8

Function:
2 = 2-way (valve plugged at factory)
8 = 3-way NC and NO (universal flow)

8

2

Plunger:
1 = NC function (for 2-way only)
2 = 3-way NC or NO, 2-way NO

2

1

Suffix:
1 = Stainless Spring, Stainless Adjusting Cap

1

2

Sensor Pressure:
2 = 50 - 260 psi (3.4 - 18.0 bar)
3 = 200 - 1500 psi (13.8 - 103.4 bar)
3A = 500 - 3000 psi (34.5 - 206.8 bar)
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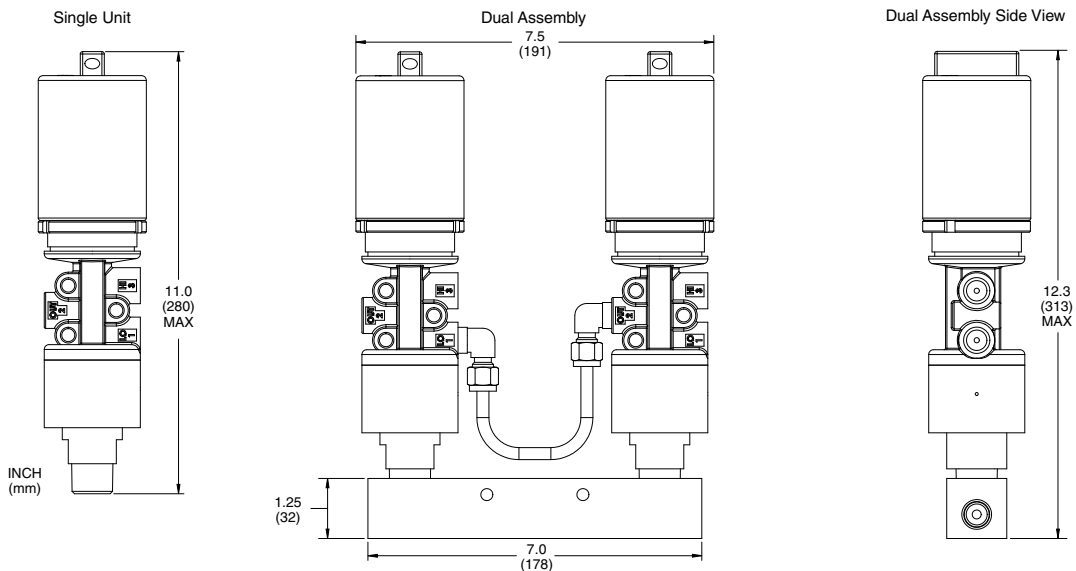
2

Suffix: None = No options
-44 = Low temperature
-T40 = Low temperature
-43E = Panel mounting nut
-AB = Mounting bracket
-BAC = Engineer polymer spring cap
-NA = NACE (Inconel Spring)



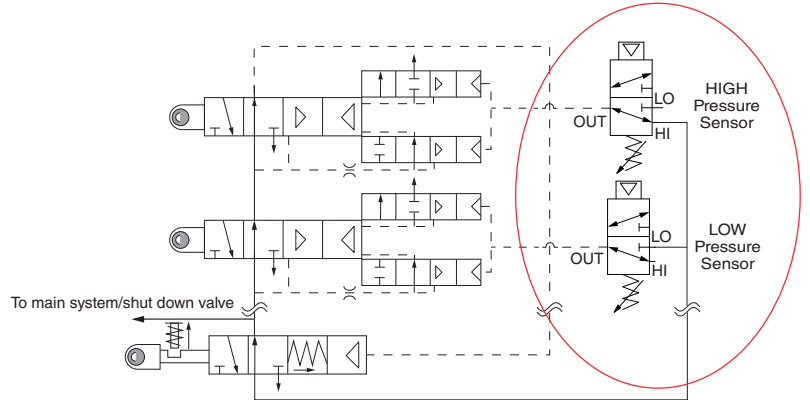
High/Low Pressure Sensor
2 Valve Assembly
BA3-8213-8214 Shown

Dimensions

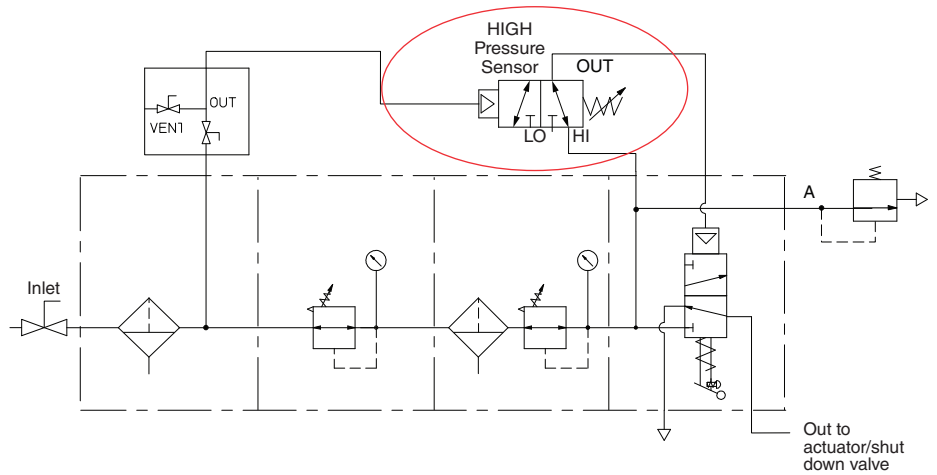
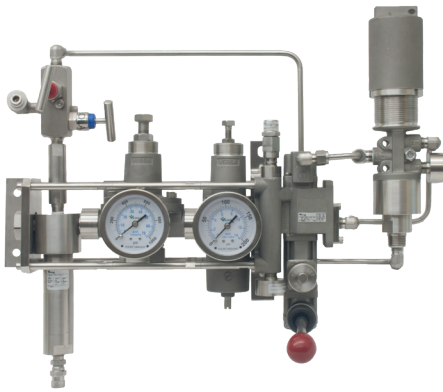


Applications

Well Head Control Typical First Out Indicator



Pipeline Control Over Pressure Protection



High-Low Trip System Manifold Assembly

