

# RPS PRESSURE SENSOR



## SERVICE CLASSIFICATION

- **Pneumatic / Hydraulic Service**
- Standard Service:  
Fluorocarbon O-Rings
- Temperature Range:  
-15 to 250 °F (-26 to 121 °C)
- 30-150 PSI (2.07-10.34 BAR)  
Instrument Pressure Rating



## FEATURES

- 316/316L Stainless Steel Materials
- Electropolished finish which removes surface imperfections that can compromise the performance and longevity of the device
- Normally Open or Normally Closed
- Special Service O-Rings and material available to meet customer requirements
- Dry film lubricant applied to adjustment threads to increase the load-bearing capabilities; thus, reducing the chance of thread galling while still maintaining an extremely low coefficient of friction
- Contains O-Rings for all sensing configurations
- Deadband +/-5% of set pressure (Deadband may be affected in hydraulic applications)
- Set point repeatability 1% of set pressure

# RPS PRESSURE SENSOR

## OPERATION

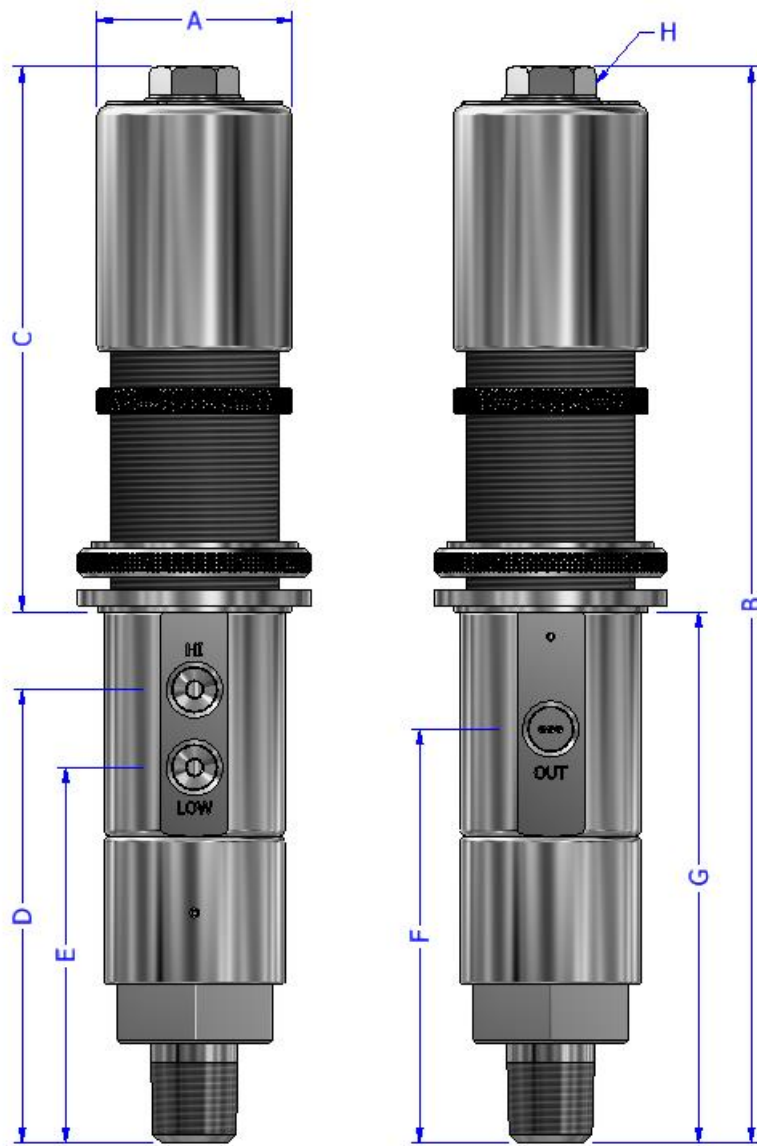
The BWB "RPS" is a 3-way, normally closed or normally open, automatic, pressure sensing device. By choosing the appropriate inlet, the sensor can detect pressure above (**PSH**) or below (**PSL**) any desired pressure setting. By selecting the correct piston & spring combination (see pressure chart), and either loosening or tightening the adjustment cap, the sensor may be set between **10** and **10,000 psi**. It is normally installed on a process vessel, process flow line, or in a control panel. The sensor receives sensing pressure from the component which it is monitoring and supply pressure from the safety system which it will shut down.

## PART NUMBER SELECTOR

EXAMPLE PART NUMBER: 15516-01012 (#1 Sensing Configuration, Fluorocarbon Elastomers, Silver Spring, 316SS Adjustment Cap, Preset Panel Nut)

BASE MODEL	ELASTOMERS	SPRING	ADJUSTMENT CAP MATERIAL	PANEL NUTS
<b>15516</b> (#1 Sensing Configuration)	0 – Fluorocarbon (Viton)	0 – Black	00 – Delrin	0 – None
<b>15517</b> (#2 Sensing Configuration)		1 – Silver	01 – 316SS	1 – Standard Panel Nut
<b>15518</b> (#3 Sensing Configuration)		2 – Green		2 – Preset Panel Nut
		3 – Black Inconel (X750)		
		4 – Silver Inconel (X750)		
		5 – Green Inconel (X750)		

# RPS PRESSURE SENSOR



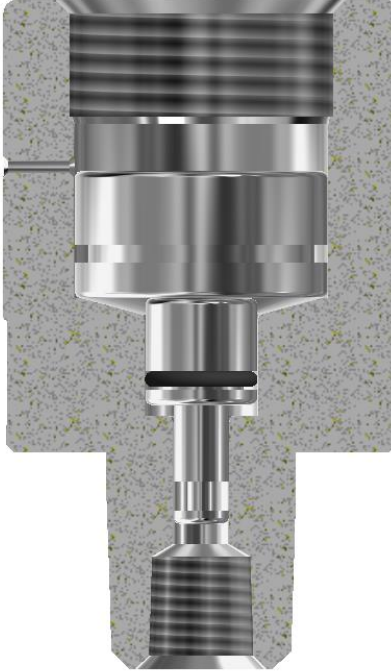
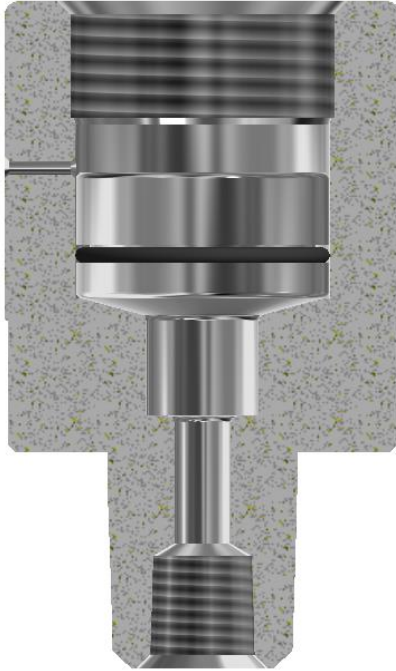
DIMENSION	RPS
A	1.88" (47.75 mm)
B	10.95" (278.13 mm)
C	7.99" (202.95 mm)
D	4.37" (111.00 mm)
E	3.62" (91.95 mm)
F	3.99" (101.35 mm)
G	5.12" (130.56 mm)
H	.75" Hex (19.05 mm)
Port Size	1/4-18-NPT

# RPS PRESSURE SENSOR

**#1 1-1/8" SENSING UNIT**

**#2 1/2" SENSING UNIT**

**#3 1/4" SENSING UNIT**



## SPECIFICATIONS

**Maximum Operating Pressure**  
10,000 PSI (689.48 Bar)

**Process Connections**  
1/2"-14-MNPT / 1/4"-18-FNPT

## PRESSURE RANGES

Piston Configuration #1		
Spring	Range (PSI)	Range (Bar)
Black	10 - 30 PSI	0.7 - 2
Silver	30 - 250 PSI	2 - 17
Green	200 - 500 PSI	14 - 34

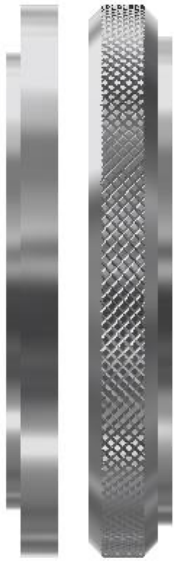
Piston Configuration #2		
Spring	Range (PSI)	Range (Bar)
Silver	250 - 1300 PSI	17 - 90
Green	400 - 2000 PSI	28 - 138

Piston Configuration #3		
Spring	Range (PSI)	Range (Bar)
Silver	2000 - 5500 PSI	138 - 379
Green	3500 - 10,000 PSI	241 - 690

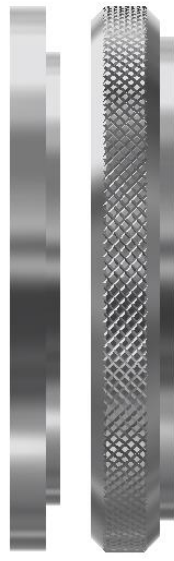
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## PANEL MOUNT OPTIONS

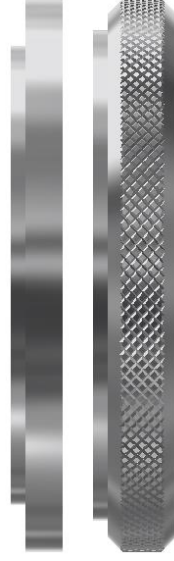
#1 1-5/8"



#2 1-7/8"



#3 2"



#4 2"



Options 1-3 orientate panel nut to desired panel hole size as shown above.

Option 4 is recommended for preset pressure sensors. Removal of the adjustment cap is not necessary to install the pressure sensor in the panel.