



## "RHB" PILOT "HYDRAULIC PRESSURE SENSOR"

### OPERATION

The BWB "RHB" is a 2 way, normally open or normally closed, automatic, hydraulic, 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 assembly & spring combination (See Pressure Chart), and either loosening or tightening the adjustment bolt, the sensor may be set between 3 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 (Port P) from the component which it is monitoring and hydraulic supply pressure (Port A or B) from the safety system which it will shutdown.

During normal operation, the sensing pressure (Port P) should remain either above or below the desired setting. This will allow supply pressure (Port A or B) to be blocked and the exhaust (Port A or B) open to the reservoir.

When the sensing pressure (Port P) rises above or falls below the set pressure, the sensor will bleed the supply pressure (Port A or B) through the exhaust (Port A or B); thus closing the actuator or system.

When the sensing pressure (Port P) returns to normal operating limits, the sensor will automatically reset.

### FEATURES

- 316 STAINLESS STEEL MATERIALS
- 1/4" FNPT CONTROL PORTS
- DEAD BAND +/- 10% OF SET PRESSURE
- SET POINT REPEATABILITY +/- 1% OF SET PRESSURE

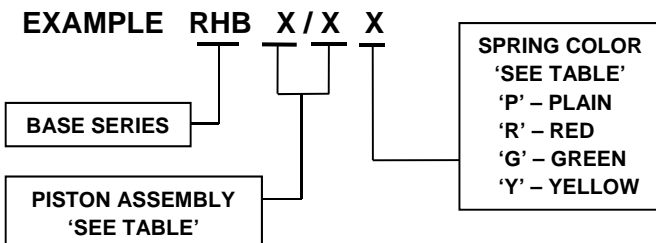
### SERVICE CLASSIFICATION

- Standard service: Viton O-rings
- Temperature Range: -15 to 250° F (-26 to 121° C)
- Special service: O Ring compounds and materials to Customer Requirements

**BWB Controls 'RHB' Pilots can be configured to meet the needs of the customer by changing the Sensing Sleeves, Sensing Pistons and Springs. Please review the charts below to determine your configuration.**



### ORDERING INFORMATION



PART #	PISTON/SPRING	ADJUSTABLE RANGE	
		PSI	bar
RHBLP	LP PLAIN	3 - 10	.21 - .69
RHB1/2P	#1/2 - PLAIN	5 - 15	.34 - 1.02
RHB1/2R	#1/2 - RED	15 - 50	1.02 - 3.45
RHB1/2G	#1/2 - GREEN	50 - 200	3.45 - 13
RHB1/2Y	#1/2 - YELLOW	150 - 325	10 - 22
RHB2/1G	#2/1 - GREEN	150 - 500	10 - 34
RHB2/1Y	#2/1 - YELLOW	300 - 900	20 - 62
RHB2/3G	#2/3 - GREEN	150 - 500	10 - 34
RHB2/3Y	#2/3 - YELLOW	300 - 900	20 - 62
RHB3/2G	#3/2 - GREEN	500-1500	34 - 103
RHB3/2Y	#3/2 - YELLOW	750 - 2000	52 - 138
RHB4/5G	#4/5 - GREEN	1000 - 3000	69 - 207
RHB4/5Y	#4/5 - YELLOW	1500 - 4000	103 - 275
RHB5/4G	#5/4 - GREEN	2000 - 6000	138 - 413
RHB5/4Y	#5/4 - YELLOW	3500 - 10000	241 - 689

WEIGHTS	
RHB	5.75 POUNDS
PANEL MOUNT	
1 - 3/8" Diameter Hole (35 mm)	
Maximum Panel Thickness, 0.25 Inches (6 mm)	
Panel Nut Thickness; 0.25 inches (6 mm)	



## INSTALLATION

### PORT 'A'

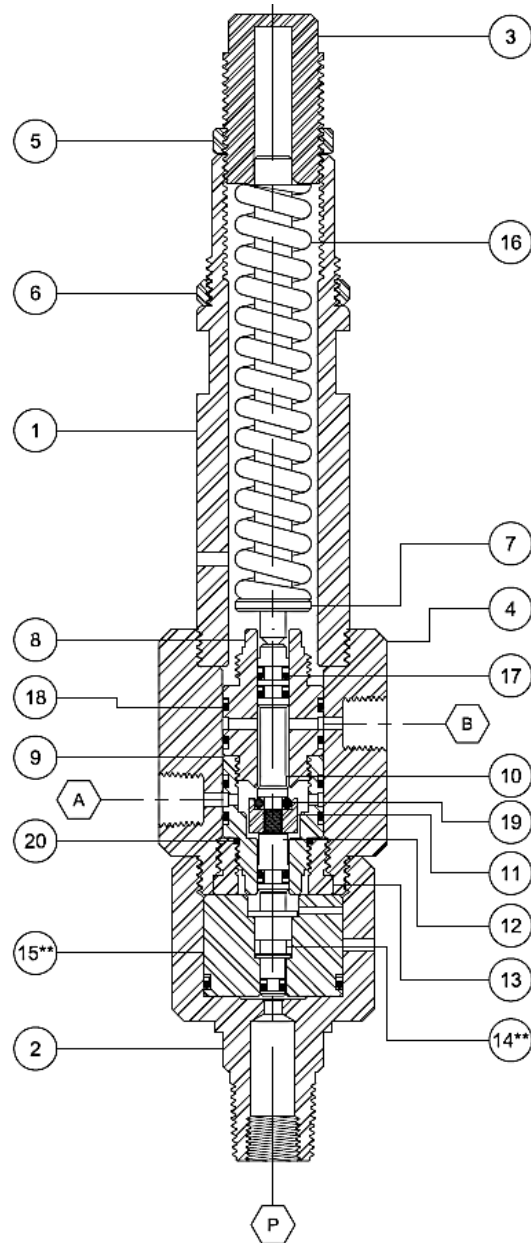
PSL – Supply Inlet (N.O.)  
 PSH – Outlet (N.C.)  
 30 to 6000 PSI (2.06 to 413.40 bar)  
 1/4" FNPT - Orifice - .125" (3.18 mm)

### PORT 'B'

PSH – Supply Inlet (N.C.)  
 PSL – Outlet (N.O.)  
 30 to 6000 PSI (2.06 to 413.40 bar)  
 1/4" FNPT - Orifice - .125" (3.18 mm)

### PORT 'P'

Sensing Pressure Inlet  
 3 to 10000 PSI (0.21 to 689.48 bar)  
 1/4" FNPT and 1/2" MNPT  
 Orifice Size - .187" (4.75 mm)



ITEM	DESCRIPTION
1	UPPER BODY
2	BASE
3	ADJUSTMENT BOLT
4	LOWER BODY
5	LOCKRING
6	PANEL NUT
7	SPRING GUIDE
8	UPPER SLEEVE
9	LOWER SLEEVE
10	INNER PISTON
11	SEAT ADAPTER
12	LOWER INNER PISTON
13	INNER CAP
14	SENSING PISTON **
15	SENSING SLEEVE **
16	SPRING
17	O-RING AND BACKUP (QTY 3)
18	O-RING AND BACKUP (QTY 4)
19	O-RING
20	O-RING

\*\* SENSING PISTON AND  
 SLEEVE DATA IS FOUND BELOW

### REPAIR KIT(S):

CONTAINS ALL SEALS



**BWB Controls**  
 Telephone (985)-876-4117  
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 ISO 9001 Certified

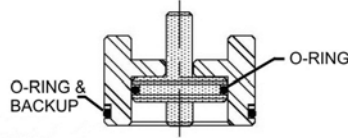
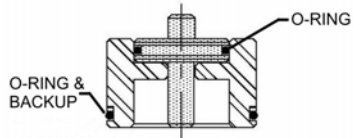


Please see the diagrams below of the Sleeve and Piston configurations.

**1/2 PISTON ASSEMBLY**

1/2 PISTON & SLEEVE

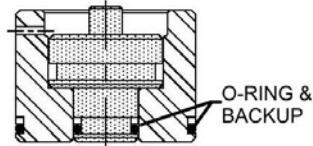
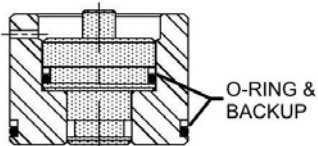
2/1 PISTON & SLEEVE



**2/3 PISTON ASSEMBLY**

2/3 PISTON & SLEEVE

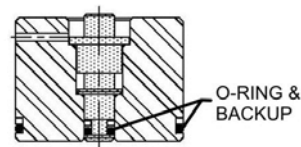
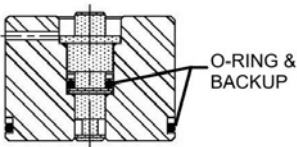
3/2 PISTON & SLEEVE



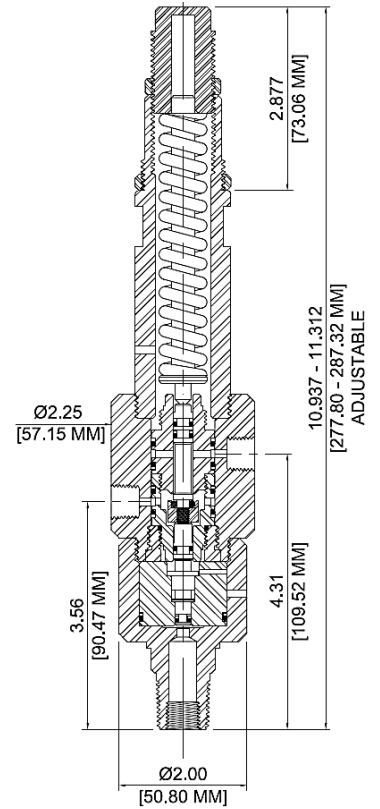
**4/5 PISTON ASSEMBLY**

4/5 PISTON & SLEEVE

5/4 PISTON & SLEEVE



**DIMENSIONS**



The RHB pressure sensor can be switched between High and Low by flipping the internal cartridge.

**HIGH OR LOW CONFIGURATION**

LOW

HIGH

