

Ruelco



SS-2 Pressure Switch

Model 420

SS-2

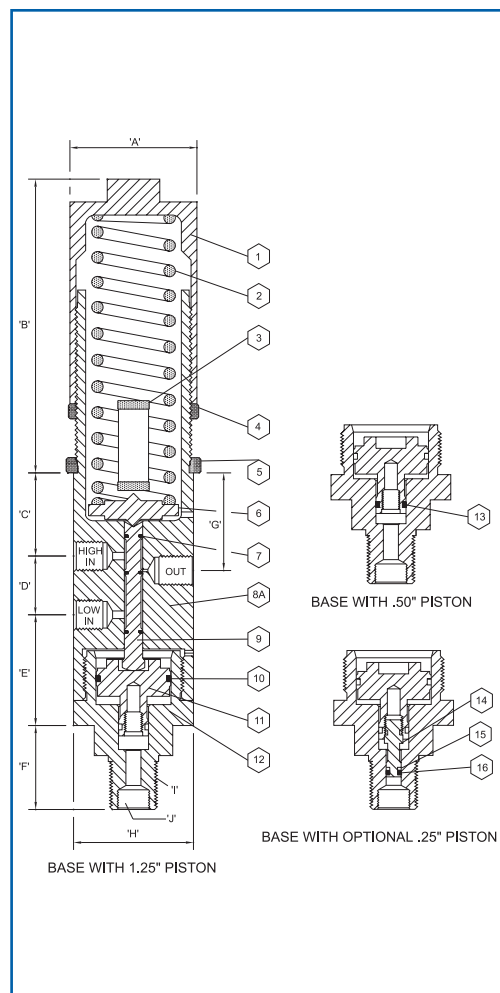
Pneumatic Pressure Switch

FEATURES

- 316 stainless steel construction (models to N.A.C.E. MR0175 available).
- Standard base range 10-10,000 p.s.i. (with 1/4" piston option).
- Operating pressure range from .5 to 20,000 psi.
- High Flow ($C_v .090$) on model 4222 (see back cover).
- Block-and-bleed 3-way valve.
- Holds constant and accurate set points.
- Designed for 1% plus or minus repeatability on set points.
- Minimum deadband between trip and reset pressure.
- Spring may be replaced with instrument and sensing pressure present in the sensor.
- Vent above sensing piston prevents high pressure from entering instrument supply should a piston seal leak develop.
- Optional tamper proof lock-out device available upon request.

GENERAL DESCRIPTION:

The Ruelco 'SS-2' pneumatic pressure switch is a three way block and bleed 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 through which of the two ports the instrument pressure is supplied. These ports are marked as 'HI IN' or 'LO IN' on the switch body. The output port, marked 'OUT' on the switch body, is the same for either mode of operation. Pressure applied to the sense port will cause the valve to operate.



Parts List For Pressure Switch Model SS-2

Item	Qty.	Description	Material
1	1	Spring Cap	316L or ASTM-A-351 S.S.
2A	1	Spring (Blue)	ASTM-401
2B	---	Spring (Red)	ASTM-401
2C	---	Spring (Silver)	ASTM-401
2D	---	Spring (Green) optional	Inconel X-750
2E	---	Spring (Yellow) optional	Inconel X-750
2F	---	Spring (Purple) optional	Inconel X-750
3	1	Parts Tube	Acetate Butyrate
4	1	Lock Ring	AISI 316 St. Stl.
5	1	Panel Mnt. Ring (Optional)	AISI 316 St. Stl.
6	1	Spring Plate	AISI 316 St. Stl.
7	3	Shaft O-ring	Viton
8A	1	Body For SS-2	CF-8M St. Stl.
8B	1	Body For SS-2 High Flow	CF-8M St. Stl.
9	1	Spool For SS-2	17-4 PH St. Stl.
10	1	O-ring For 1.25" Piston	Viton
11	1	1.25"/.50" Piston	AISI 316 St. Stl.
12	1	1.25"/.50"/.25" Sensor Base	AISI 316 St. Stl.
13	1	O-ring For .5" Piston	Viton
14	1	.25" Piston (Optional)	AISI 316 St. Stl.
15	1	Backup For .25" Piston	Teflon
16	1	O-ring For .25" Piston	Viton
17	---	Repair Kit	Items 7, 10, 13, 15, 16

Parts Tube Not Supplied With Switches Using 3.0" or .187" Sensor Base.

Switch Specifications

Valve Type	3 Way
Set Point Deviation	$\pm 1\%$
Deadband	5% of Range
Max. Instr. Press.	150 PSI
C_v Factor	0.030
Ambient Temp. Range	-20 to 250 deg. F -29 to 122 deg. C

1.25"/.50"/.25" Switch Sensor Specifications

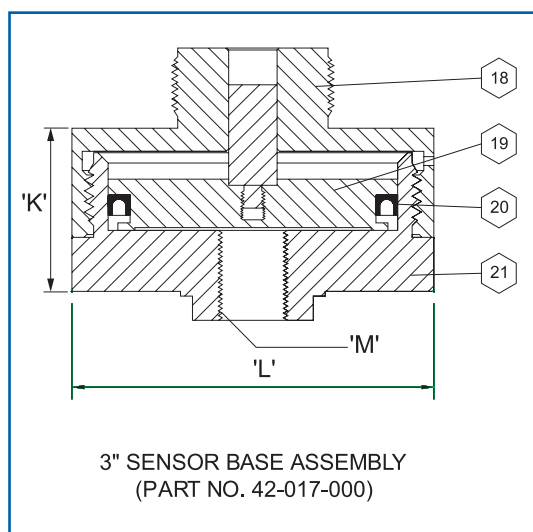
Sensor Type	Piston
Max. Oper. Press.	10,000 PSI (690 BAR)
Burst Pressure	20,000 PSI (1380 BAR)
Temperature Range	-20 to 250 Deg. F -29 to 122 Deg. C

Dimensions Inch (MM)

A	2.12 (53.8)
B (Max)	6.13 (155.7)
C	1.39 (35.3)
D	.98 (24.9)
E	1.43 (36.3)
F	1.82 (46.2)
G	1.63 (41.4)
H	2.0 (50.8)
I	1/2" MNPT
J	1/4" MNPT
Panel Mount Hole	1.875 (48.0)
Valve Ports	1/4" FNPT
Weight*	4.9 lbs. (2.3Kg)

* For Switch and 1.25/.50/.25 Sensor Base.

Spring Codes (COLOR)		Available Ranges - PSI (BAR)														
		.5-20 (.03-1.4)	4-40 (.3-2.75)	10-80 (.7-5.5)	10-115 (.7-7.9)	20-230 (1.4 - 15.8)	50-450 (3.4 -31)	200-750 (13.8-51.8)	500-1500 (34.5-103.5)	1000-3000 (69-207)	1000-3000 (69-207)	2000-5000 (138-345)	5000-10000 (345-689)	2000-5000 (138-345)	3500-9000 (241-620)	8500-20000 (586-1380)
STANDARD SPRING	INCONEL SPRING															
B (Blue)	G (Green)	X			X			X			X			X		
R (Red)	Y (Yellow)		X			X			X			X			X	
S (Silver)	P (Purple)			X			X			X			X			X
Piston Diameter		3.0"	3.0"	3.0"	1.25"	1.25"	1.25"	.50"	.50"	.50"	.25"	.25"	.25"	.187"	.187"	.187"
Piston Code		0	0	0	I	I	I	2	2	2	3	3	3	4	4	4
		OPTIONAL BASE											OPTIONAL PISTON		OPTIONAL BASE	



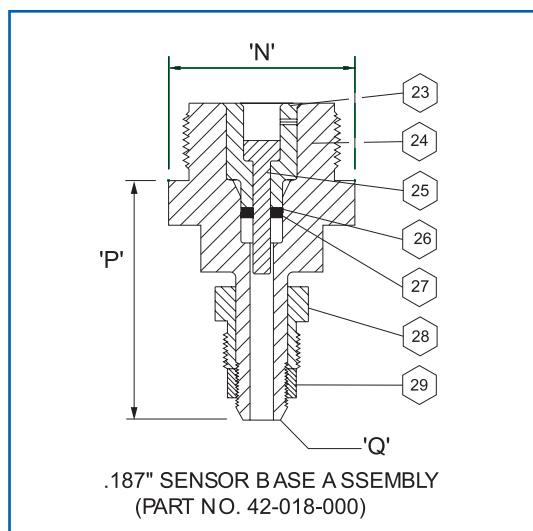
3.0" Sensor Base

ITEM	QTY.	DESCRIPTION	MATERIAL
18	1	Upper Housing	17-4 P.H. St. Std.
19	1	Piston Assembly	17-4 P.H. St. Std.
20	1	Seal	Viton
21	1	Lower Housing	17-4 P.H. St. Std.
22	---	Rep. Kit F/ 3.0" Base	Items 7 & 20

Sensor Type	Piston
Max. Oper. Press.	5,000 PSI (345 BAR)
Burst Pressure	10,000 PSI (690 BAR)
Temperature Range	-20 to 250 Deg. F -29 to 122 Deg. C

K	2.0 IN. (50.8 MM)
L	3.75 IN. (95.2 MM)
M	1/2" FNPT
Weight*	8.5 lbs. (3.7 Kg.)

* For Switch and 3.0" Sensor Base



.187" Sensor Base

ITEM	QTY.	DESCRIPTION	MATERIAL
23	1	Retainer Sleeve	AISI 316 St. Std.
24	1	.187" Sensor Base	17-4 P.H. St. Std.
25	1	.187" Piston	17-4 P.H. St. Std.
26	1	Back -Up Ring	Glass Filled Teflon
27	1	Seal	Viton
28	1	9/16" Gland Nut	AISI 316 St. Std.
29	1	9/16" Gland Collar	AISI 316 St. Std.
30	---	Rep. Kit F/ .187" Base	Items 7, 26 & 27

Sensor Type	Piston
Max. Oper. Press.	20,000 PSI (1,380 BAR)
Burst Pressure	40,000 PSI (2,760 BAR)
Temperature Range	-20 to 250 Deg. F -29 to 122 Deg. C

N	2.0 IN. (50.8 MM)
P	2.57 IN. (65.3 MM)
Q	9/16" M/P Autoclave
Weight*	5.0 lbs. (2.3 Kg.)

* For Switch and .187" Sensor Base

Ordering Code: 4202 X X X 0 0 0

BASE MODEL NUMBER

Standard Corrosive Service - (-)
N.A.C.E. Option - N

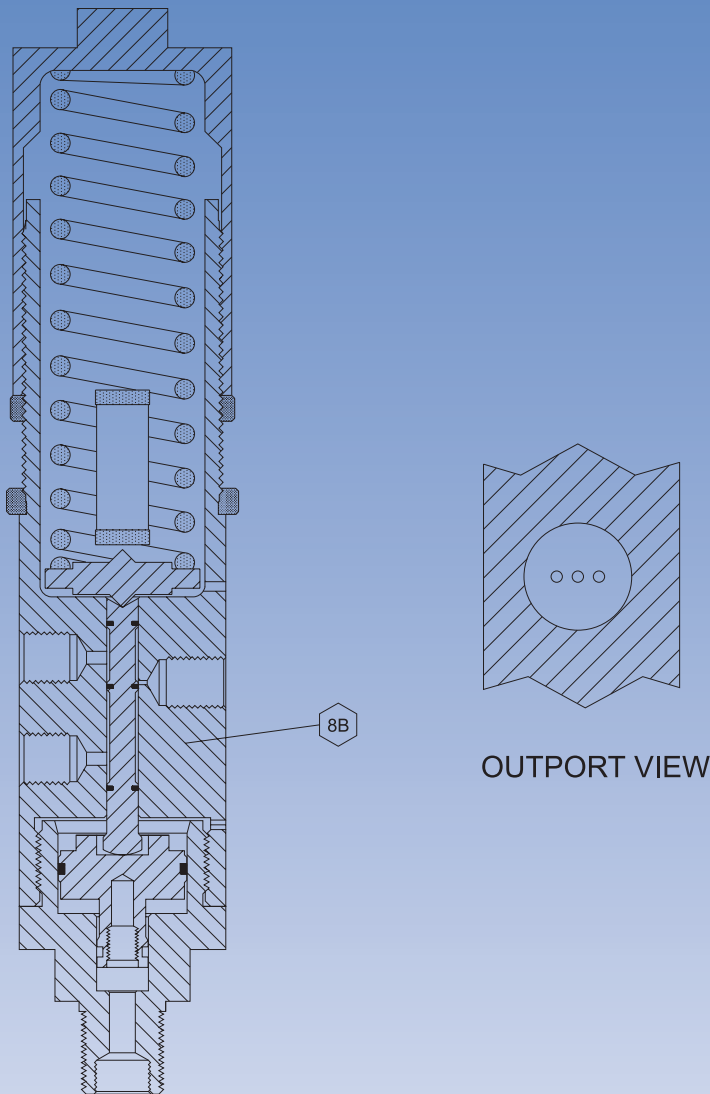
SPRING CODE (see range chart)

PISTON CODE (see range chart)



SS-2 High Flow

Pressure Switch



Model 4222 (Cv Factor .090)

Ruelco SS Series

Pressure Switches

**SS-1
High Flow**

**SS-2
Standard**

**SS-2
High Flow**

**SS-1
Differential**

**SS-2
Differential**

**SS-4
Hydraulic Bleed**

**SS-E
Electric**

**SS-E
Electric Differential**