SS-2 Pressure Switch

Model 4202

RUELCO



2063 Paxton Street Harvey, LA 70058 Phone (504) 340-0055 Fax (504) 340-0056

SS-2

Pneumatic Pressure Switch

FEATURES

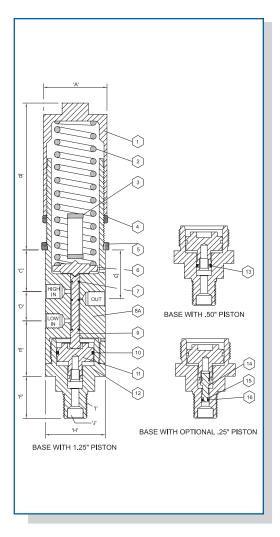
- 316 stainless steel construction (models to N.A.C.E. MR0175 available).
- Standard base range 10-10,000 p.s.i. (with 1/4" piston option).
- Operating pressure range from .5 to 20,000 psi.
- High Flow (Cv .090) on model 4222 (see back cover).
- Block-and-bleed 3-way valve.
- · Holds constant and accurate 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				
		Spring Cap	316L or ASTM-A-351 S.S.				
2A	ı	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	I	Parts Tube	Acetate Butyrate				
4	I	Lock Ring	AISI 316 St. Stl.				
5	I	Panel Mnt. Ring (Optional)	AISI 316 St. Stl.				
6	I	Spring Plate	AISI 316 St. Stl.				
7	3	Shaft O-ring	Viton				
8A	I	Body For SS-2	CF-8M St. Stl.				
8B	I	Body For SS-2 High Flow	CF-8M St. Stl.				
9	I	Spool For SS-2	17-4 PH St. Stl.				
10	I	O-ring For 1.25" Piston	Viton				
Н	I	1.25"/.50" Piston	AISI 316 St. Stl.				
12	I	1.25"/.50"/.25" Sensor Base	AISI 316 St. Stl.				
13	I	O-ring For .5" Piston	Viton				
14	I	.25" Piston (Optional)	AISI 316 St. Stl.				
15	I	Backup For .25" Piston	Teflon				
16	I	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	<u>+</u> 1%
Deadband	5% of Range
Max. Instr. Press.	I50 PSI
C _V Factor	0.030
Ambient Temp.	-20 to 250 deg. F
Range	-29 to 122 deg. C

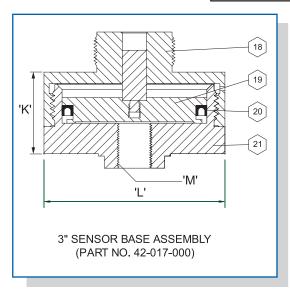
1.25"/.50"/.25" Switch Sensor Specifications

Sensor Type	Piston
Max. Oper. Press.	10,000 PSI (690 BAR)
Burst Pressure	20,000 PSI (1380 BAR)
Temperature	-20 to 250 Deg. F
Range	-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)
Н	2.0 (50.8)
1	I/2" MNPT
j j	I/4" MNPT
Panel Mount Hole	1.875 (48.0)
Valve Ports	I/4" FNPT
Weight*	4.9 lbs. (2.3Kg)

Spring	Spring Codes		Available Ranges - PSI (BAR)													
(COLOR)		.5-20 (.03-1.4)	4-40 (.3-2.75)	10-80	10-115 (.7-7.9)	-230 - 15.8)	-450 t -31)	200-750 13.8-51.8)	500-1500 (34.5-103.5)	(69-207)	(69-207)	2000-5000 (138-345)	5000-10000 (345-689)	2000-5000 (138-345)	0-9000 1-620)	-20000 -1380)
STANDARD SPRING	INCONEL SPRING	 2. (6.)	4 (.3	7.)	10	20.	50- (3.4	200	500 (34.5	69)	1000	200(5000-	200(3500 (241	8500 [.] (586 [.]
B (Blue)	G (Green)	Х			Χ			Х			Х			Х		
R (Red)	Y (Yellow)		Х			Х			Х			Χ			Χ	
S (Silver)	P (Purple)			Х			Х			Х			Х			Χ
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	Ι	I	Ι	2	2	2	3	3	3	4	4	4
		OPTI	ONAL E	BASE							OPTIC	NAL P	ISTON	ОРТІ	ONAL I	BASE



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.187" SENSOR BASE A SSEMBLY (PART NO. 42-018-000)

3.0" Sensor Base

ITEM	QTY.	DESCRIPTION	MATERIAL
18		Upper Housing	17-4 P.H. St. Stl.
19	- 1	Piston Assembly	17-4 P.H. St. Stl.
20	- 1	Seal	Viton
21	- 1	Lower Housing	17-4 P.H. St. Stl.
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	-20 to 250 Deg. F
Range	-29 to 122 Deg. C

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

* For Switch and 3.0" Sensor Base

.187" Sensor Base

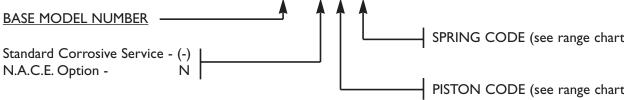
IN							
23	ITEM	QTY.	DESCRIPTION	MATERIAL			
	23	l I	Retainer Sleeve	AISI 316 St. Stl.			
24	24	- 1	.187" Sensor Base	17-4 P.H. St. Stl.			
	25	- 1	.187" Piston	17-4 P.H. St. Stl.			
25	26	- 1	Back -Up Ring	Glass Filled Teflon			
	27	- 1	Seal	Viton			
26	28	- 1	9/16" Gland Nut	AISI 316 St. Stl.			
'P' ////// \ \ \	29	- 1	9/16" Gland Collar	AISI 316 St. Stl.			
27	30		Rep. Kit F/ .187" Base	Items 7, 26 & 27			
28			Sensor Type	Piston			
			Max. Oper. Press.	20,000 PSI (1,380 B)			

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

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

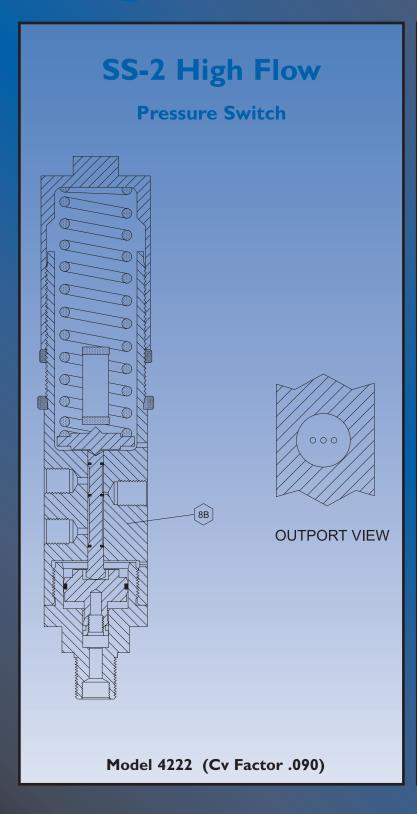
* For Switch and .187" Sensor Base

SPRING CODE (see range chart) PISTON CODE (see range chart)



Ordering Code: 4202 XXX 0 0 0





Ruelco SS Series

Pressure Switches

SS-I High Flow

SS-2 Standard

SS-2 High Flow

SS-I Differential

SS-2 Differential

SS-4 Hydraulic Bleed

> SS-E Electric

SS-E Electric Differential