

RELIEF REGULATORS

MODEL: 5220-SB, 5221-SB-300

Revision: 0

BULLETIN
5220, 5221

DESCRIPTION

SB Relief Regulators are versatile – offering fast, positive response service for air, all types of gas fuels, and inert gas applications. They may be used as bypass valves in automatic safety systems, and as high capacity relief regulators downstream of reducing regulator stations and inert gas generators.

Supplied with color-coded springs in cataloged pressure ranges. Inlet pressures to 25 psig operating; maximum surge to 50 psig without damage. Available in sizes 3/4" through 3" NPT.

APPLICATIONS

- Relief Valve.
- Gas flow shut-off valve on loss of air pressure on combustion systems.
- Vent regulators on atmosphere generators.
- High capacity safety vent regulators downstream of reducing regulator stations (overpressure relief valves).
- By-pass valves.
- Remote pneumatic-controlled shut-off valves.

CAPACITY TABLE

Relief Regulator Catalog Number	Pipe Size NPT	Capacities in SCFH of Various Specific Gravity Gases @ 14" W.C. Pressure Drop				
		0.4	0.6	1.0	1.5	2.0
SB- 6-	3/4"	1,230	1,000	780	630	550
SB- 8-	1"	2,400	2,000	1,500	1,200	1,100
SB-12-	1-1/2"	4,900	4,000	3,100	2,500	2,200
SB-20-	2-1/2"	12,300	10,000	7,800	6,300	5,500
SB-24-	3"	21,000	17,000	13,000	11,000	9,200

SPRING RANGES			
Spring Number	Spring Color	Spring Adjustment Range Start to Stroke Setting	
		Minimum	Maximum
4	Red	1" w.c.	8" w.c.
16	Orange	7" w.c.	30" w.c.
48	White	12 osi	48 osi
Spring #48 not available on #SB20 and SB24			



FEATURES

- Drip tight shut-off below start to open point.
- Balanced valve design.
- Synthetic reinforced diaphragms – for air, all fuel and inert gases.
- Inlet pressures to 25 psig operating, maximum surge to 50 psig without damage.
- Rugged proven design.
- Standard SB series operating temperatures to 150 °F.
- SB-300 series operating temperatures to 300 °F.

CAUTION: Operation of combustion equipment can be hazardous resulting in bodily injury or equipment damage. Each burner should be supervised by a combustion safeguard and only qualified personnel should install, make system adjustments and perform any required service.

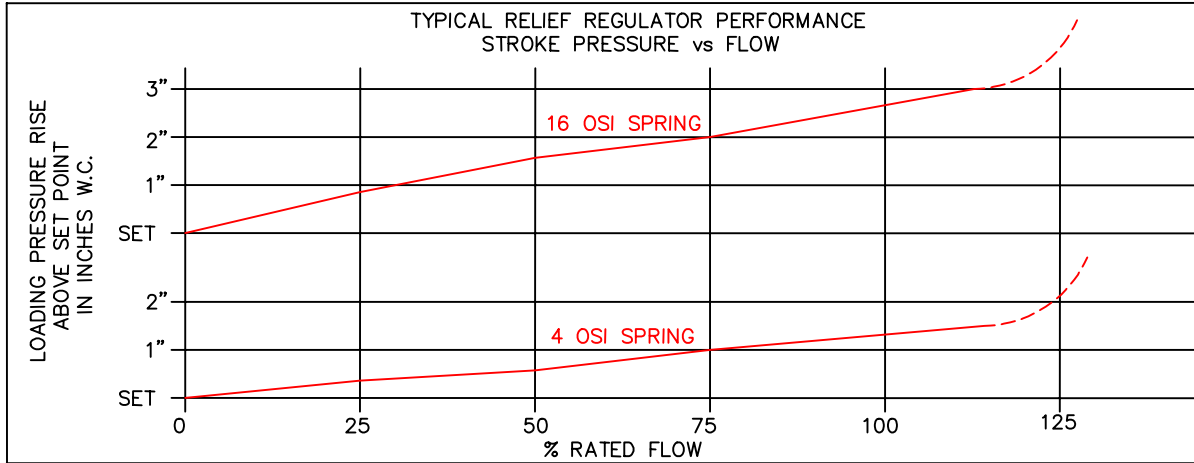


ORDAN THERMAL PRODUCTS LTD
Combustion Equipment & Controls for Industry
21 Amber St # 9, Markham Ontario Canada L3R 4Z3
Tel: (905) 475-9292 Fax: (905) 475-3286
www.ordanthermal.com

NOTICE: PYRONICS practices a policy of continuous improvement in the design of its products. It reserves the right to change the specifications at any time without prior notice.

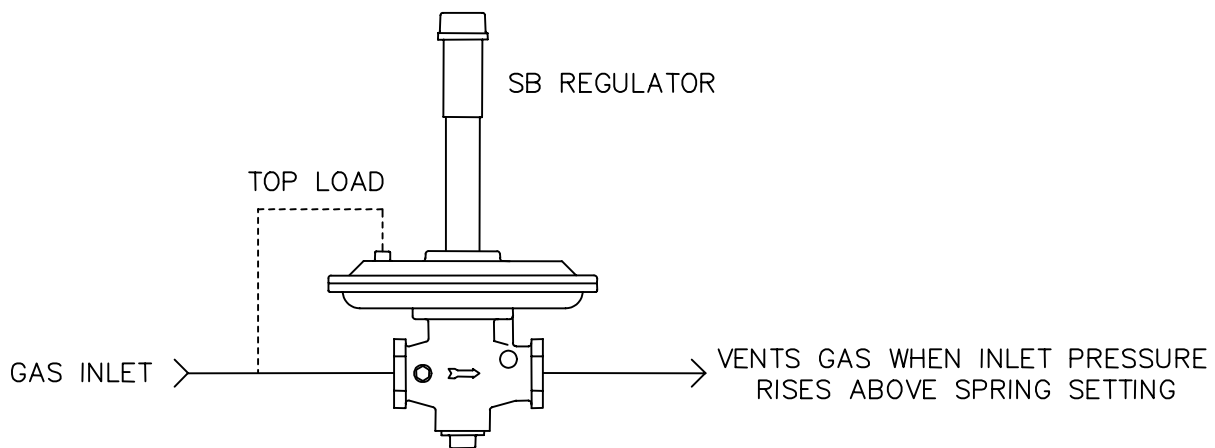
RELIEF REGULATORS

BULLETIN
5220, 5221
PAGE NO. 2



Top diaphragm loading connection may be direct connected from inlet tapping on valve body or from a remote signal source. When direct connected, the pressure ahead of the regulator will remain same as spring setting. Valve opens as inlet pressure rises.

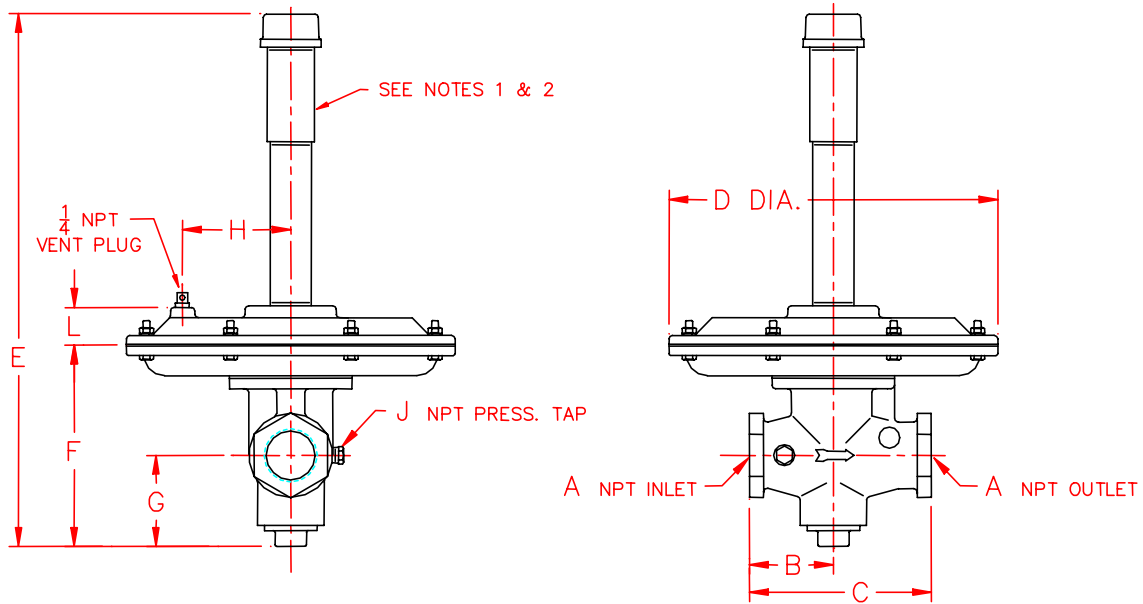
SB PIPING DIAGRAM



RELIEF REGULATORS

BULLETIN
5220, 5221
PAGE NO.3

DIMENSIONS: 3/4" - 3" SIZES SB and SB-300



Model Number	A	B	C	D	E	F	G	H	J	L	Weight	
											Lbs.	Kgs.
SB- 6- 4	3/4	2-1/2	5	8-1/4	19	4-7/8	2	----	1/8	----	13.0	5.90
SB- 6-16	3/4	2-1/2	5	8-1/4	20-1/2	4-7/8	2	----	1/8	----	13.0	5.90
SB- 6-48	3/4	2-1/2	5	8-1/4	12-7/8	4-7/8	2	----	1/8	----	13.0	5.90
SB- 8- 4 & 16	1	2-3/8	4-3/4	9-3/4	20-1/2	4-3/4	2	3-3/8	1/8	1-1/4	19.0	8.62
SB- 8-48	1	2-3/8	4-3/4	9-3/4	12-7/8	4-3/4	2	3-3/8	1/8	1-1/4	19.0	8.62
SB-12- 4 & 16	1-1/2	3	6-1/2	11-3/4	25-7/8	7-1/4	3-1/4	3-7/8	1/4	1-3/8	26.0	11.79
SB-12-48	1-1/2	3	6-1/2	9-3/4	15-1/8	7	3-1/4	3-3/8	1/4	1-1/4	26.0	11.79
SB-20- 4	2-1/2	4	8-3/4	14	28	8-3/4	3-5/8	3-5/8	1/4	1-7/8	50.0	22.68
SB-20-16	2-1/2	4	8-3/4	14	32	8-3/4	3-5/8	3-5/8	1/4	1-7/8	50.0	22.68
SB-24- 4	3	5-3/4	11-1/2	14	29-3/4	10-5/8	4-5/8	3-5/8	1/4	1-7/8	72.0	32.66
SB-24-16	3	5-3/4	11-1/2	14	33-3/4	10-5/8	4-5/8	3-5/8	1/4	1-7/8	72.0	32.66

NOTES:

1. Spring housing must be perpendicular to pipe run in an upright position.
2. Gas pipe run must be horizontal and level.
3. All dimensions are in inches.

ORDERING INFORMATION

1. Select quantities and sizes of Relief Regulators required, based on capacity table on Page 1.
2. Select spring range and color from table for opening pressure desired.
3. Add catalog letters "MT" for maximum travel stop to prevent valve from opening beyond a preset flow limit. "MT" is only for air or inert gases - not for fuel gases.
4. Example: SB20-16-MT for 2-1/2" Relief Regulators with maximum travel stop and 7" to 30" w.c. spring range.

CAUTION: Operation of combustion equipment can be hazardous resulting in bodily injury or equipment damage. Each burner should be supervised by a combustion safeguard and only qualified personnel should install, make system adjustments and perform any required service.



ORDAN THERMAL PRODUCTS LTD
Combustion Equipment & Controls for Industry
21 Amber St # 9, Markham Ontario Canada L3R 4Z3
Tel: (905) 475-9292 Fax: (905) 475-3286
www.ordanthermal.com

NOTICE: PYRONICS practices a policy of continuous improvement in the design of its products. It reserves the right to change the specifications at any time without prior notice.