Model 496 Service Regulator

Technical Data

	Straight Body	Angle Body
Valve Body: Cast Iron,125 psig Working Pressure		
Spring and Lower Case: Die-Cast Aluminum	3/8" x 3/8"	–
Orifice: Aluminum (Brass Optional)	1/2" x 1/2"	–
Valve Seat/Stem: One piece molded Buna-N seat and Zamak stem	3/4" x 3/4"	3/4" x 3/4"
Throat/Support/Stem Guide: Cast Aluminum integral to lower case	3/4" x 1"	3/4" x 1"
Diaphragm Plate: Plated Steel	1" x 1"	1" x 1"

Diaphragm: 4" Molded, roll-out polyester fabric reinforced Buna-N with integral relief seat and case flange seal

Vent and Valve: Precision-fit polypropylene valve and seat, threaded 3/4" or 1" NPT

Adjustment Screw: ABS cycolac

Closing Cap: ABS cycolac with internal relief valve stop and a hole for available tamper seal wire

Operating Temperature: -20° F to 150° F (-28.9° C to 65.5° C)

Corrosion Protection: Chromate converted castings, topcoat enamel,optional E-coat

Internal Relief Valve: Set to relieve at 7" w.c. – 10" w.c. above normal outlet pressure setting of 7" w.c.

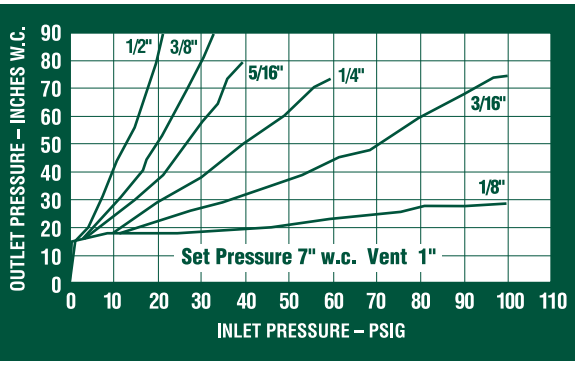
Regulator Spring Chart

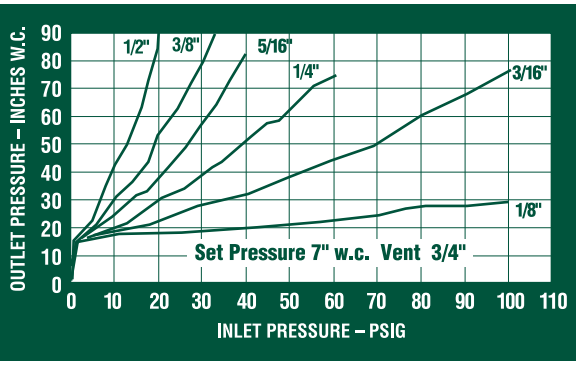
Part number	Color	Normal Spring Range
071-03409-004	Silver	3.5" w.c. – 10.5 " w.c.
071-03409-001	Blue	6.0" w.c. – 8.0" w.c.
071-03409-002	Green	6.0" w.c. – 14.0 " w.c.
071-03409-003	Red	12.0" w.c. – 28" w.c.
071-03406-002	Black	1 psig – 2 psig

Orifice and Maximum Inlet Pressure

Part Number	Size	Pressure
019-01029-001	1/8"	125 psig
019-01029-002	3/16"	125 psig
019-01029-003	1/4"	60 psig
019-01029-035	5/16"	40 psig
019-01029-004	3/8"	30 psig
019-01029-005	1/2"	20 psig

Relief Valve Performance: Lever blocked with valve disc in the wide open position

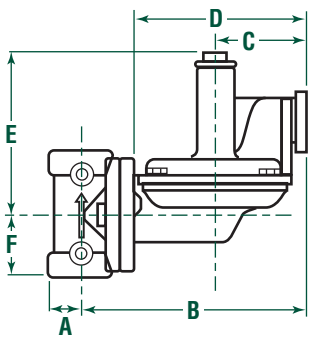




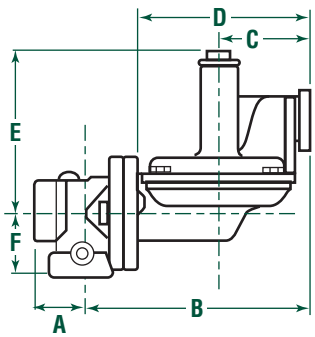
Dimensions

Body	Outlet Size	A	B	C	D	E	F
Straight	All	1.0"	7.3"	3.0"	5.7"	5.2"	2.0"
Angle	3/4" & 1"	1.5"	7.3"	3.0"	5.7"	5.2"	2.0"

406-20



496-10



For use on other compatible gases, flow capacities must be adjusted using the following correction factors:

Type Gas	Sp Grav	Corr Factor
Air	1.0	0.77
Propane	1.53	0.63
Propane-air	1.2	0.71
Nitrogen	0.97	0.79
Dry CO_2	1.52	0.63

For other non-corrosive gases, the CorrectionFactor is equal to:

$$\sqrt{0.6 / \text{Specific Gravity}}$$

Technical Data
Model 496

SENSUS
www.sensus.com/gas
805 Liberty Boulevard
DuBois, PA 15801
800-375-8875
Fax: (814) 375-8460

Outlet Pressure Set Point 7.0" w.c. @ 50 scfh, variances not to exceed +2.0" w.c. and -1.0" w.c. from set point.

Body Size Outlet: 1/2"

Inlet	Orifice					
Psig	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
1	–	110	200	220	–	–
2	–	210	240	300	–	–
5	220	290	330	390	–	–
10	290	350	420	480	–	–
15	350	410	470	550	–	–
20	410	490	500	560	–	–
25	430	500	550	580	–	–
30	470	520	580	590	–	–
40	500	570	600	600	–	–
50	550	600	600	–	–	–
60	570	600	600	–	–	–
80	600	600	–	–	–	–
100	600	600	–	–	–	–

Body Size Outlet: 3/8"

Inlet	Orifice					
Psig	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
1	–	100	160	190	–	–
2	–	150	200	220	–	–
5	180	200	250	260	–	–
10	190	220	270	280	–	–
15	200	240	280	290	–	–
20	220	260	290	300	–	–
25	230	260	290	300	–	–
30	240	270	300	300	–	–
40	250	280	300	300	–	–
50	260	300	300	–	–	–
60	270	300	300	–	–	–
80	300	300	–	–	–	–
100	300	300	–	–	–	–

Body Size Outlet: 3/4"

Inlet	Orifice					
Psig	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
1	–	200	275	300	400	500
2	–	250	400	475	575	775
5	275	400	675	725	875	1050
10	400	650	900	950	1000	1175
15	500	775	1100	1100	1150	1300
20	600	1000	1175	1250	1300	1350
25	675	1100	1225	1350	1375	–
30	775	1250	1300	1475	1500	–
40	900	1300	1350	1525	–	–
50	1050	1375	1425	–	–	–
60	1250	1425	1500	–	–	–
80	1500	1500	–	–	–	–
100	1550	1550	–	–	–	–

Body Size Outlet: 1"

Inlet	Orifice					
Psig	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
1	–	200	250	300	400	425
2	–	300	350	475	525	550
5	250	450	600	725	950	1150
10	375	750	900	1200	1250	1700
15	500	950	1150	1550	1550	1800
20	600	1200	1350	1600	1600	1950
25	675	1350	1600	1650	1650	–
30	775	1550	1800	1825	1850	–
40	950	1875	1900	1950	–	–
50	1100	2000	2025	–	–	–
60	1250	2075	2100	–	–	–
80	1500	2200	–	–	–	–
100	1800	2250	–	–	–	–

Outlet Pressure Set Point 2.0 psig @ 50 scfh, variances not to exceed +/- 10% from pressure set point.

Body Size Outlet: 1/2"

Inlet	Orifice					
Psig	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
5	160	290	340	420	–	–
10	250	420	480	500	–	–
15	320	490	520	620	–	–
20	360	510	590	650	–	–
25	390	550	660	700	–	–
30	440	590	720	760	–	–
40	520	700	800	810	–	–
50	530	750	840	–	–	–
60	580	870	920	–	–	–
80	670	910	–	–	–	–
100	750	1000	–	–	–	–

Body Size Outlet: 3/8"

Inlet	Orifice					
Psig	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
5	150	280	330	380	–	–
10	240	400	430	440	–	–
15	310	440	460	500	–	–
20	350	450	480	510	–	–
25	380	460	500	530	–	–
30	430	490	520	560	–	–
40	450	510	560	580	–	–
50	460	550	570	–	–	–
60	470	560	590	–	–	–
80	540	570	–	–	–	–
100	570	580	–	–	–	–

Body Size Outlet: 3/4"

Inlet	Orifice					
Psig	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
5	200	300	350	500	550	50
10	325	500	600	700	800	1050
15	425	650	725	900	1050	1150
20	525	725	850	1050	1200	1400
25	575	850	1000	1175	–	–
30	600	900	1100	1300	–	–
40	700	950	1250	1500	–	–
50	800	1100	1400	–	–	–
60	900	1250	1500	–	–	–
80	1100	1425	–	–	–	–
100	1200	1500	–	–	–	–

Body Size Outlet: 1"

Inlet	Orifice					
Psig	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
5	250	275	350	400	450	750
10	300	425	550	650	900	1050
15	400	500	700	1000	1050	1200
20	475	650	800	1200	1300	1500
25	550	700	1000	1300	1400	–
30	650	850	11000	1400	1500	–
40	800	1050	1300	1500	–	–
50	900	1225	1500	–	–	–
60	1000	1350	1700	–	–	–
80	1300	18000	–	–	–	–
100	1700	2000	–	–	–	–

Flow capacities in SCFH of 0.60 specific gravity gas @ 60° F and 14.7 psia. For maximum performance, maximum inlet pressure should not exceed maximum capacity rating for any given orifice size.