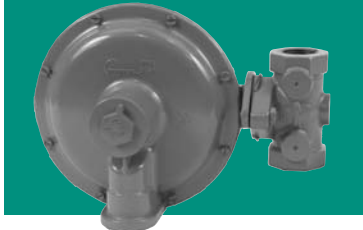


Model 143-B Service Regulator

Technical Data



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

Diaphragm: 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 cyclolac

Closing Cap: ABS cyclolac 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: Dip primed chromate-based primer, topcoat enamel, optional E-coat

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

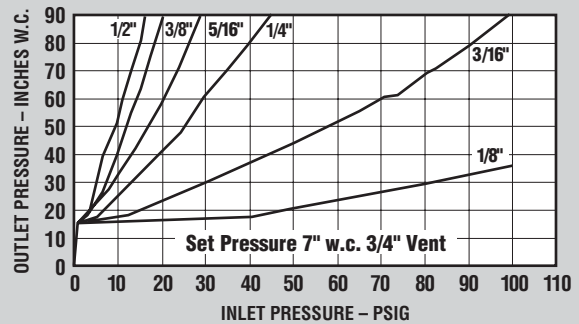
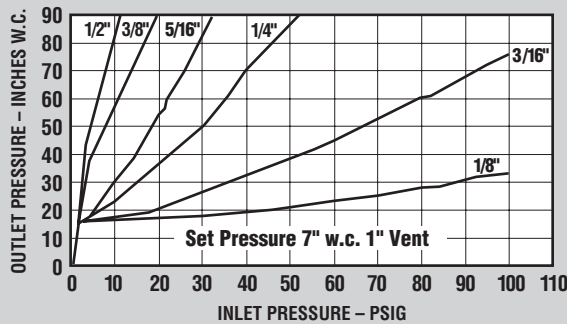
Regulator Spring Chart

Part number	Color	Normal Spring Range
071-1637-01	Silver	3.5" w.c. – 10.5" w.c.
071-1637-04	Green	3.5" w.c. – 14.0" w.c.
071-1637-06	Blue	6.0" w.c. – 8.0" w.c.
071-1637-05	Red	8.75" w.c. – 24.5" w.c.
071-1637-07	Black	1 psig – 2 psig

Orifice and Maximum Inlet Pressure

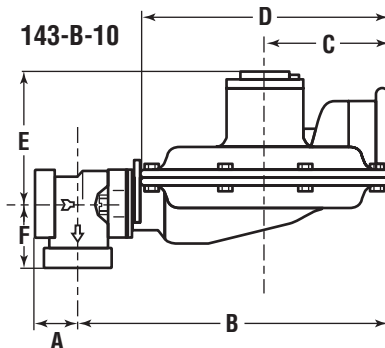
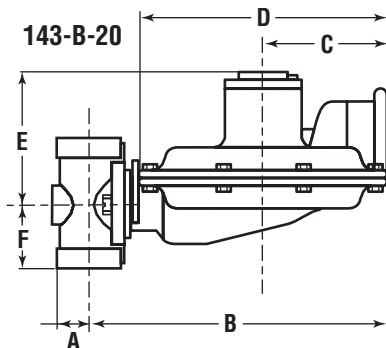
Part Number	Size	Pressure
018-01029-001	1/8"	125 psig
018-01029-002	3/16"	125 psig
018-01029-003	1/4"	60 psig
018-01029-035	5/16"	40 psig
018-01029-004	3/8"	30 psig
018-01029-005	1/2"	20 psig

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



Dimensions

Body	Outlet Size	A	B	C	D	E	F
Straight	3/4" and 1"	1.0"	9.0"	3.0"	5.7"	5.2"	2.0"
Straight	1-1/4"	1.1"	9.0"	3.5"	7.4"	3.7"	2.0"
Angle	All	1.2"	9.0"	3.5"	7.4"	3.7"	2.0"



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 Correction Factor is equal to:

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

Model 143-B

Technical Data

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: 3/4"

Inlet Psig	Orifice					
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
1	-	200	225	400	450	500
2	-	300	350	500	550	650
5	300	525	625	650	875	900
10	400	700	1000	1025	1050	1175
15	600	900	1200	1225	1250	1300
20	775	1100	1450	1475	1500	1550
25	900	1250	1475	1500	1525	-
30	1000	1400	1525	1525	1550	-
40	1225	1575	1675	1700	-	-
50	1350	1700	1800	-	-	-
60	1500	1825	1875	-	-	-
80	1650	1850	-	-	-	-
100	1700	1900	-	-	-	-

Body Size Outlet: 1"

Inlet Psig	Orifice					
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
1	-	200	275	375	475	500
2	-	300	450	575	675	725
5	250	550	800	1050	1175	1200
10	400	825	1300	1550	1600	1625
15	525	1075	1600	2000	2025	2050
20	625	1300	2000	2200	2225	2300
25	700	1425	2200	2300	2325	-
30	775	1600	2325	2400	2425	-
40	950	2000	2400	2450	-	-
50	1100	2200	2450	-	-	-
60	1300	2400	2500	-	-	-
80	1550	2450	-	-	-	-
100	1950	2500	-	-	-	-

Body Size Outlet: 1-1/4"

Inlet Psig	Orifice					
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
1	-	200	275	375	400	450
2	-	275	425	525	550	650
5	300	525	650	775	900	1000
10	400	800	900	925	1000	1100
15	525	1050	1050	1075	1100	1200
20	625	1225	1200	1300	1400	1500
25	700	1425	1400	1425	1450	-
30	775	1600	1625	1625	1650	-
40	950	1750	1800	1900	-	-
50	1100	1800	1900	-	-	-
60	1175	1900	1950	-	-	-
80	1550	2000	-	-	-	-
100	1900	2100	-	-	-	-

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.



805 Liberty Boulevard
DuBois, PA 15801
800-375-8875

Fax: (814) 375-8460
www.sensus.com
(open "North American Gas")

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

Body Size Outlet: 3/4"

Inlet Psig	Orifice					
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
5	200	300	400	450	550	650
10	300	450	650	700	825	900
15	350	625	850	950	1100	1125
20	450	775	1000	1100	1250	1500
25	550	950	1200	1300	1425	-
30	625	1050	1400	1550	1700	-
40	825	1425	1625	1800	-	-
50	1000	1600	1750	-	-	-
60	1150	1850	1950	-	-	-
80	1425	2200	-	-	-	-
100	1700	2250	-	-	-	-

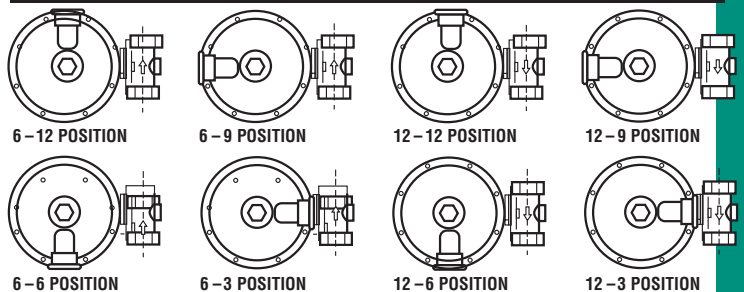
Body Size Outlet: 1"

Inlet Psig	Orifice					
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
5	200	300	400	525	575	725
10	275	500	700	875	1000	1150
15	400	650	950	1200	1300	1500
20	475	825	1250	1600	1700	1725
25	600	1050	1500	2000	2050	-
30	700	1200	1875	2200	2300	-
40	875	1600	2400	2850	-	-
50	1050	1950	2700	-	-	-
60	1175	2325	3000	-	-	-
80	1450	2700	-	-	-	-
100	1700	-	-	-	-	-

Body Size Outlet: 1-1/4"

Inlet Psig	Orifice					
	1/8"	3/16"	1/4"	5/16"	3/8"	1/2"
5	200	275	400	500	525	675
10	300	450	650	750	775	900
15	375	600	825	900	950	1200
20	500	700	1000	1100	1150	1500
25	550	850	1200	1250	1350	-
30	650	1000	1400	1425	1600	-
40	775	1200	1750	1800	-	-
50	900	1400	1950	-	-	-
60	1050	1600	2200	-	-	-
80	1425	1800	-	-	-	-
100	1700	2000	-	-	-	-

Straight Body



Angle Body

