

# SR100 Series Service Regulators

## Technical Bulletin



The compact, high capacity SR113 service regulator is designed for residential or light commercial/industrial applications using various hydrocarbon or other non-corrosive gases.

### Features

- Outlet pressure ranges available in 6" to W.C. up to 2 PSIG  
Variety of interchangeable orifices  
Cast Iron Valve Body Sizes 1/2", 3/4" and 1"; available in 90 degree (right angle), 180 degree (straight) and offset configurations
- Capacities through 2500 SCFH
- Full capacity internal relief valve
- 3/4" or 1" NPT threaded vents
- Molded Diaphragm provides more precise outlet pressure control
- All models conform to ANSI Code B109.4 and CGA Service-type Regulator Specification CAN/CGA 6.18-M95.

### Advantages

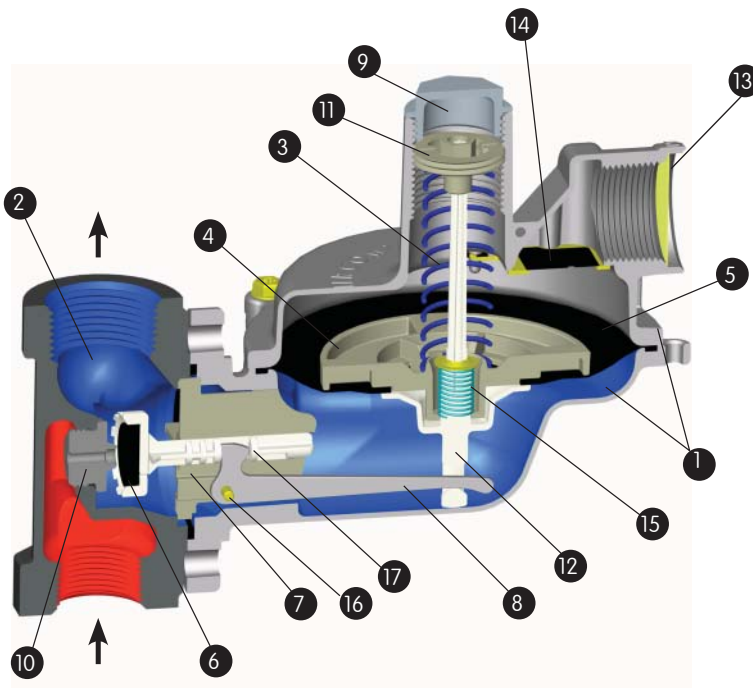
- Wide capacity range provides the ability to standardize on varying applications
- Full lockup capability provides assurance that downstream pressure will not build up during no-flow situations
- Full capacity relief provides safety during abnormal overpressure occurrences
- Compact design combined with high performance

### Options

- Vent Elbow
- Splashguard
- Pressure Taps
- Offset Valve Body

### Applications

- Residential
- Light commercial



**1** Diaphragm Case - Precision die-cast aluminum with an exclusive seven-step advanced conversion coating, single-coat polyester primer and high solid polyurethane top coat.

**2** Valve Body - Cast grey iron, undercoated, single coat polyester primer and high solid polyurethane top coat. Threads meet ANSI/ASME B1.20.1 or BS 21/EN 10226.

**3** Pressure Spring - Steel, zinc plated and chromate. Color coded for identification.

Outlet Pressure	Color Code	Part Number
6" to 8" W.C.	Blue/Yellow	70017P138
7" to 12" W.C.	Blue/Red	70017P139
13" to 16" W.C.	Blue/White	70017P140
21" to 35" W.C.	Blue/Org	70017P141
1.8 - 2#	White	70017P060

**4** Diaphragm Plate - Reinforced nylon

**5** Diaphragm - Nylon fabric reinforced Buna N.

**6** Seat Disc - Buna N; 60, 70 (std.) or 80 durometer rating.

**7** Plunger Guide - Reinforced nylon

**8** Lever - Stamped aluminum

**9** Seal Plug - Reinforced nylon

**10** Orifice Valve - High strength, corrosion resistant aluminum.

Orifice Size	Standard Part Number
5/16"	72494P022
1/4"	72494P021
3/16"	72494P020
1/8" x 3/16"	72494P030

**11** Pressure Adjustment Screw - Reinforced nylon

**12** Relief Valve - Reinforced nylon

**13** Vent Screen - Stainless steel - All models are designed with a removable weather and bug-proof stainless steel screen to resist freeze-ups and to exclude foreign matter. The vent is threaded 3/4" or 1" NPT (BSP-TR threads available).

**14** Vent Valve - Stainless steel with Electrogalvanized steel retainer.

**15** Relief Valve Spring - Steel, zinc plated and yellow chromate. Non-adjustable. Color coded for identification. Standard set point of 9" w.c. above outlet set pressure of 7" w.c. Standard set point of 1.1 psig above outlet set pressure of 2 psig.

**16** Lever Pin - Carbon steel, zinc plated

**17** Plunger -Reinforced nylon

# SR100 Capacity

1/2" x 1/2" Valve Body



CAPACITY (SCFH) 1/2" VALVE HEAD					
7"wc set, 1" droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
1	100	125	150	150	175
2	150	150	200	225	225
5	225	250	300	325	350
10	325	350	425	475	500
15	400	425	550	550	600
20	475	500	600	600	650
30	600	600	700	700	700
40	650	650	750	750	700
60	700	700	800	700	
80	750	700	800		
100	800	750	750		
125	650	600			

CAPACITY (SCFH) 1/2" VALVE HEAD					
11"wc set, 1" droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
1	100	125	150	175	175
2	150	150	175	200	225
5	225	250	325	325	350
10	325	350	425	500	500
15	425	425	550	600	550
20	475	500	650	700	650
30	600	650	750	750	750
40	700	700	750	750	800
60	750	800	800	750	850
80	750	850	800	700	
100	800	800	800		
125	650	750			

CAPACITY (SCFH) 1/2" VALVE HEAD					
14"wc set, 1" droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
1	75	100	125	125	150
2	125	150	150	175	175
5	175	225	225	275	300
10	275	325	325	375	400
15	350	400	425	475	550
20	425	475	500	550	600
30	550	600	700	600	700
40	650	700	700	500	700
60	800	750	750	650	700
80	750	800	800	600	
100	800	750	800		
125	650	650			

# SR100 Capacity

1/2" x 1/2" Valve Body



CAPACITY (SCFH) 1/2" VALVE HEAD					
2# set, ±10% droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
3					
5	150	225	225	300	275
10	250	275	325	350	400
15	275	400	350	550	475
20	375	450	475	500	600
30	425	500	550	650	650
40	550	650	650	800	850
60	700	850	750	1000	1000
80	800	1000	950	1100	
100	950	1000	1000		
125	950	1000			

CAPACITY (SCFH) 1/2" VALVE HEAD					
5# set, ±10% droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
10	250	300	300	425	400
15	300	300	425	500	500
20	375	425	450	650	700
30	500	600	600	800	850
40	650	700	800	950	1000
60	850	900	1100	1200	1300
80	1000	1200	1200	1400	
100	1200	1300	1200		
125	1300	1400			

# SR100 Capacity

## 3/4" x 3/4 Valve Body

CAPACITY (SCFH) 3/4" VALVE BODY					
7"wc set, 1" droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
1	—	—	175	225	225
2	—	—	200	275	275
5	225	275	350	425	450
10	350	350	550	750	750
15	425	450	850	1100	1000
20	500	475	950	1200	1200
30	650	650	1400	1500	1600
40	800	800	1500	1700	1800
60	1100	1100	1700	1900	
80	1400	1400	1900	1900	
100	1700	1700	1800		
125	1800	1800			

CAPACITY (SCFH) 3/4" VALVE BODY					
11"wc set, 1" droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
1	—	—	175	225	225
2	—	—	250	325	300
5	250	250	425	500	500
10	350	350	700	800	800
15	450	425	900	1000	950
20	500	500	1100	1200	1000
30	650	650	1200	1500	1300
40	800	800	1400	1600	1400
60	1100	1100	1200	1600	
80	1400	1300	1200		
100	1700	1300	1200		
125	1900	1300			

CAPACITY (SCFH) 3/4" VALVE BODY					
14"wc set, 1" droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
1	—	—	150	150	175
2	—	—	200	225	225
5	200	250	325	375	400
10	300	350	475	600	600
15	400	425	650	800	800
20	500	500	750	900	950
30	650	650	1100	1300	1200
40	800	800	1200	1400	1300
60	1100	1100	1200	1400	1300
80	1400	1300	1200	1400	1400
100	1600	1300	1200		
125	1600	1300			

CAPACITY (SCFH) 3/4" VALVE BODY					
2# set, ±10% droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
3	150	125	125	200	200
5	200	175	175	275	225
10	325	275	300	425	425
15	425	375	350	550	550
20	500	450	475	650	700
30	650	550	650	850	900
40	800	750	750	1100	1200
60	1100	950	1200	1600	1500
80	1400	1300	1600	1800	
100	1600	1500	1900		
125	1900	1800			

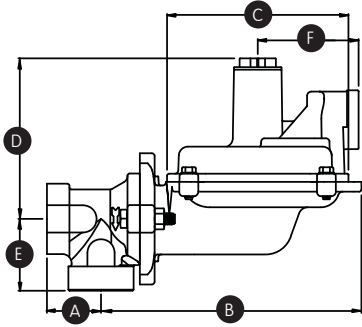
# SR100 Capacity

## 3/4" x 3/4 Valve Body



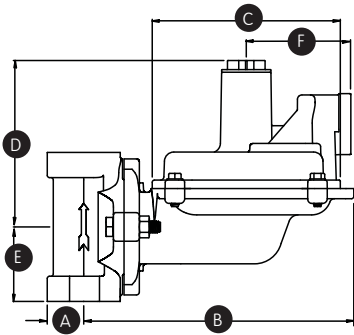
CAPACITY (SCFH) 3/4" VALVE BODY					
5# set, ±10% droop					
INLET (psig)	ORIFICE				
	1/8"	1/8" x 3/16"	3/16"	1/4"	5/16"
10	275	325	375	475	500
15	350	400	500	600	650
20	400	500	650	750	900
30	550	600	900	1100	1100
40	650	800	1100	1300	1500
60	900	1100	1500	1900	2000
80	1200	1400	1900	2300	2400
100	1300	1700	2200		
125	1700	2000			

# SR100 Service Regulator Dimensions



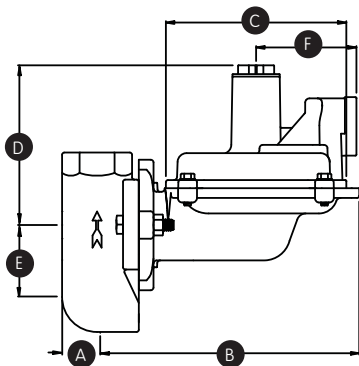
Model SR113 - 90°

Inlet	Outlet	A	B	C	D	E	F
3/4"	3/4"	1-1/2" 38.10mm	7-1/8" 180.98mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm1/2
1/2"	1/2"	1-1/2" 38.10mm	7-1/8" 180.98mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm
1"	1"	1-1/2" 38.10mm	7-1/8" 180.98mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm



Model SR113- 180°

Inlet	Outlet	A	B	C	D	E	F
3/4"	3/4"	1" 25.40mm	7-1/8" 180.98mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm1/2
1/2"	1/2"	1" 25.40mm	7-1/8" 180.98mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm
1"	1"	1" 25.40mm	7-1/8" 180.98mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm



Model SR113 - Offset

Inlet	Outlet	A	B	C	D	E	F
3/4"	3/4"	1" 25.40mm	8-9/16" 217.49mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm
3/4"	1"	1" 25.40mm	8-9/16" 217.49mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm
1"	1"	1" 25.40mm	8-9/16" 217.49mm	5-3/8" 136.53mm	4-7/16" 112.73mm	2" 50.80mm	2-13/16" 71.45mm

## Regulator Pressure Rating

125 PSIG (8.6 bar) = Maximum recommended inlet pressure for normal service.  
Maximum recommended pressure may vary with orifice size.

175 PSIG (12 bar) = Maximum inlet pressure for abnormal or emergency service, without causing damage to regulator case.

2 PSIG (138 mbar) = Maximum outlet pressure for normal service.

10 PSIG (689 mbar) = Maximum outlet pressure which can be contained by pressure carrying components (no flange leakage to atmosphere except for normal relief action). **If regulator is subjected to these conditions, it should be removed from service.**

50 PSIG (3.5 bar) = Maximum outlet pressure for abnormal service without damage to internal components. **If regulator is subjected to these conditions, it should be removed from service.**