

Model	OSS-Series
Service	Steam, Air, Water & Other Liquids
Sizes	1/2", 3/4", 1", 1 1/4" *
Connections	NPT, SW, 150# & 300# FLG
Body Material	Stainless Steel CF8M
Seat & Disc	Hardened 420 Stainless Steel (Disc Options - Teflon)
Diaphragm (for Steam)	Stainless Steel - Steam
Diaphragm (for Liquid or Air)	Viton- Water, Air & oil (300°F max)
Max Inlet Pressure	300 PSIG
Min Inlet Pressure	15 PSIG
Max Differential Pressure	125 PSI
Min Differential Pressure	15 PSI

*1 1/2" End Connections available; consult factory.

Design Pressure/Temperature Rating – PMA/TMA

NPT:	300 PSIG @ 450° F
150# FLG	195 PSIG @ 400° F
300# FLG	300 PSIG @ 450° F

Typical Applications

The **OSS-Series** direct-operated pressure regulators with heavy duty stainless steel bodies are suitable for a wide range of applications in the low-to-moderate flow range. Applications include small heaters, humidifiers, various hospital equipment, tire molds, as well as many other general uses. The Stainless Steel Body & Trim also make this valve a consideration for potable water service.

This style of regulator does not require an external sensing line. Set pressure is controlled by turning an adjustment screw with lock nut that increases or decreases spring force above the diaphragm. Several spring ranges are available, depending upon the downstream pressure that needs to be maintained. OSS-Series contains hardened stainless steel seat and disc for extended service life (soft seat options available). Stainless Steel Diaphragms are offered for steam service. Viton diaphragms are specifically designed for water, air, gases and other liquid service and have a working temperature range up to 300°F.

Features & Options

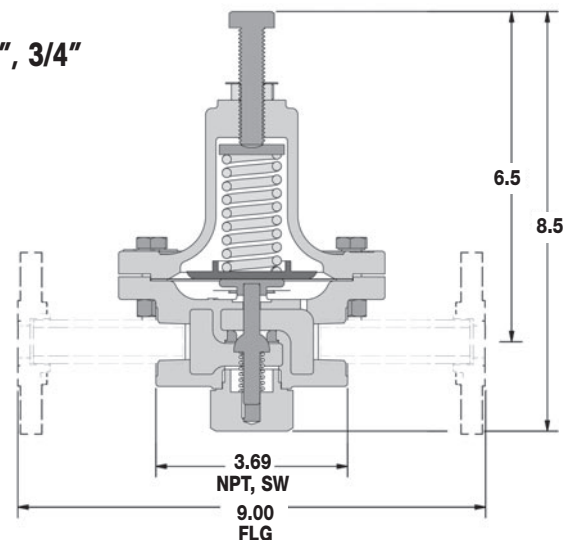
- Hardened stainless steel seat and disc for extended service life (55 Rc)
- Optional Teflon Disc Seats for increased shut-off tightness
- Stainless Steel diaphragm for Steam Service
- Viton diaphragm for up to 300°F for Water, Oil & Air Service
- Integral stainless steel strainer on 1" and 1 1/4" only

MATERIALS

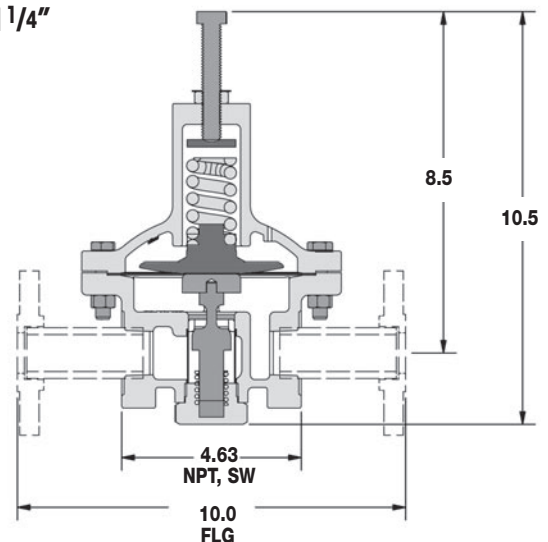
Body	Stainless Steel CF8M
Cover	Stainless Steel CF8M
Gasket	Garlock (only with SST diaphragm)
Cover Screws	Stainless Steel
Cover Nuts	Stainless Steel
Adjusting Screw	Stainless Steel
Screen	Stainless Steel (1" & 1 1/4" only)
Valve Seat	Hardened 420 SST
Valve Disc	Hardened 420 SST (Teflon opt.)
Diaphragm	Stainless Steel, (steam) Viton (water, air, oil service)



1/2", 3/4"



1, 1 1/4"



WEIGHTS – inches

Size	Weight (lbs)
1/2"	8
3/4"	8
1"	18
1 1/4"	18

Regulators

Pressure Regulating Valve



OSS-Series

Direct-Operated

Pressure Regulating Valves for

Steam: Stainless Steel Diaphragm

Water, Oil, Air: Viton Diaphragm

CAPACITIES – Steam (lbs/hr), Air (SCFM), Water (GPM)

Inlet Press.	Outlet Press.	1/2", 3/4"			1", 1 1/4"		
		Steam	Air	Water	Steam	Air	Water
15	2	46	26	6	130	73	16
	5	38	21	4	106	59	13
20	5	65	36	8	184	102	22
	10	61	34	6	174	97	18
30	15	45	25	4	128	72	13
	5	83	46	10	236	131	28
50	10	83	46	10	236	131	28
	15	71	40	6	201	112	18
100	5	121	67	13	342	190	38
	25	121	67	13	342	190	38
125	40	87	49	6	247	138	18
	30	214	119	17	607	337	47
150	50	214	119	14	607	337	40
	70	195	109	11	390	218	25
200	30	261	145	19	739	410	55
	50	261	145	17	739	410	49
250	70	261	145	15	739	410	42
	100	201	112	10	569	318	28
300	25	307	171	23	871	484	63
	50	307	171	20	871	484	57
350	70	307	171	18	871	484	51
	100	298	166	14	844	471	40
400	120	239	133	11	677	378	31
	75	401	222	22	1135	630	64
450	100	401	222	20	1135	630	57
	125	374	205	17	1058	583	49
500	150	327	178	14	924	507	40
	125	494	274	22	1400	777	63
550	150	470	259	18	1329	734	56
	200	371	202	14	1049	574	40
600	100**	584	325	28	1721	968	80
	175	542	297	22	1598	885	63
650	200	509	278	20	1499	828	56

* Air and water capacities are based on using elastomeric diaphragms. For Water capacities, check pressure drop for cavitation. Consult factory if needed.

** Max. 125 psi pressure drop. Use these capacities when sizing safety valves (SRV).

Note: For capacities of other liquids multiply the water capacities by the following factors:

Argon–0.85 CO2 –0.81 Helium–2.69 Nitrogen–1.02

Notes: For capacities of other liquids multiply the water capacities by the following factors:

Diesel Fuel (68F) - 1.07

Kerosene (68F) - 1.11

Ethylene Glycol (68F) - 0.56

Size/ Connection NPT	Reduced Pressure Range (PSI)	STEAM	Water • Oil • Air	Weight lbs
		Model Code	Model Code	
SINGLE SPRING		STEAM	Water • Oil • Air	
1/2"	0-10	OSS-12-N-13-S	OSS-12-N-13-V	10
	10-50	OSS-12-N-14-S	OSS-12-N-14-V	10
	40-100	OSS-12-N-09-S	OSS-12-N-09-V	10
	100-200	OSS-12-N-10-S	OSS-12-N-10-V	10
3/4"	0-10	OSS-13-N-13-S	OSS-13-N-13-V	10
	10-50	OSS-13-N-14-S	OSS-13-N-14-V	10
	40-100	OSS-13-N-09-S	OSS-13-N-09-V	10
	100-200	OSS-13-N-10-S	OSS-13-N-10-V	10
1"	0-10	OSS-14-N-0007-S	OSS-14-N-0007-V	19
	10-30	OSS-14-N-0008-S	OSS-14-N-0008-V	19
	30-50	OSS-14-N-0009-S	OSS-14-N-0009-V	19
	40-85	OSS-14-N-0010-S	OSS-14-N-0010-V	19
1-1/4"	0-10	OSS-15-N-0007-S	OSS-15-N-0007-V	19
	10-30	OSS-15-N-0008-S	OSS-15-N-0008-V	19
	30-50	OSS-15-N-0009-S	OSS-15-N-0009-V	19
	40-85	OSS-15-N-00010-S	OSS-15-N-00010-V	19

Connection Codes:

(N=NPT, SW=Socket Weld, F150=150# FLG, F300=300# FLG)

Important Application Note:

- Use Stainless Steel Diaphragms for Steam.
- Use Viton diaphragms for Water, Air and Oil Applications.

Stainless Steel Diaphragms may fracture if used on Liquid Service. Use for Steam Only.

Diaphragm Code:

S - Stainless Steel for Steam Service

V - Viton (300 °F Max) for Air & Other Liquids

Teflon Soft-Seat Option Suffix Code: 6T

Example Model Codes:

1) **OSS-13-N-14-S-6T**

(OSS Series, 3/4" NPT, 10-50 PSI, Stainless Steel Diaphragm, Teflon Disc)

2) **OSS-13-N-14-V**

(OSS-Series, 3/4" NPT, 10-50 PSI, Viton Diaphragm, Stainless Disc)

PRESSURE
Regulators

www.vaportec.us