

# Mark 608 Series

## Gas Pressure Regulators

1-1/2" – 2"

The 1-1/2" and 2" size Mark 608 valves are for use on large tank blanketing applications or other low pressure gas regulation. In a tank blanketing application, the Mark 608 is used to control the flow of the blanketing gas into the tank to maintain the proper positive pressure. Once the blanket has been established, a small flow of nitrogen is continually admitted to the tank to keep the blanket fresh. These valves are often used in conjunction with Jordan's Mark 508 back pressure gas regulator, used to vent gas from the tank to prevent blanketing pressure from rising to a level that could damage the tank.

The Mark 608 comes standard with an extra large diaphragm to give set point control as low as 2.0" W.C. (4,98 mbar). In addition, the "S" pattern body design allows for high flow capacity and also gives the option of having bubble tight shutoff.



### SPECIFICATIONS

**Sizes:** 1-1/2" (DN40) & 2" (DN50)

#### End Connections

- Threaded – NPT, BSPT, BSPP
- Flanged – 150#, 300#, PN16, PN40
- Others upon request

#### Materials

- Body: Bronze (B61), Carbon Steel (WCB), Stainless Steel (CF8M)
- Trim: 316 Stainless Steel
- Seat: 316 Stainless Steel
- Diaphragm: Buna-N/Nylon, Viton/Nomex and EPDM with Polyester reinforcement
- Soft seat and o-rings match diaphragm material

**Shutoff:** ANSI Class VI

#### Ranges

- 2 to 5 inches w.c. (5,0 to 12,5 mbar)
- 4 to 8 inches w.c. (10,0 to 20 mbar)
- 8 to 28 inches w.c. (20 to 70 mbar)
- 10 to 17 inches w.c. (25 to 42 mbar)
- 14 to 28 inches w.c. (35 to 70 mbar)
- 0.75 to 1 psi (52 to 69 mbar)
- 1 to 2 psi (69 to 138 mbar)
- 1.5 to 3 psi (0,10 to 0,21 bar)
- 3 to 5 psi (0,21 to 0,34 bar)

**Cv Rating:** 23 (20 Kv)

#### Pressure Temperature Rating

- 25 psi @ 100°F (4,1 bar @ 37,8°C)
- 25 psi @ 275°F (4,1 bar @ 135°C)

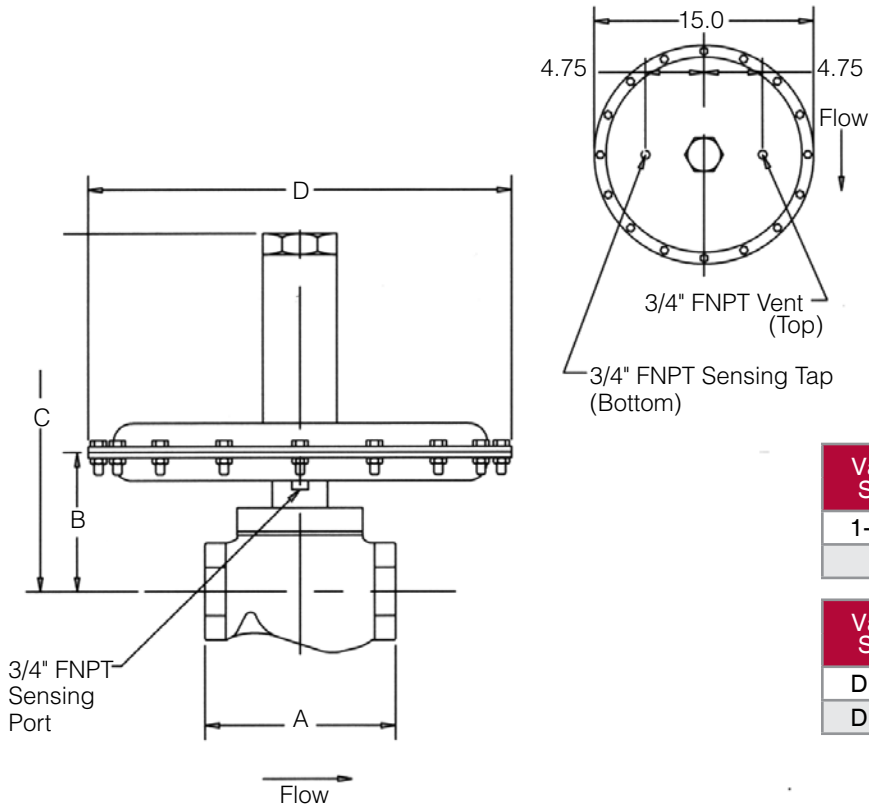
**Maximum Downstream Pressure:** 25 psig (1,7 bar)



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# MARK 608 GAS PRESSURE REGULATOR

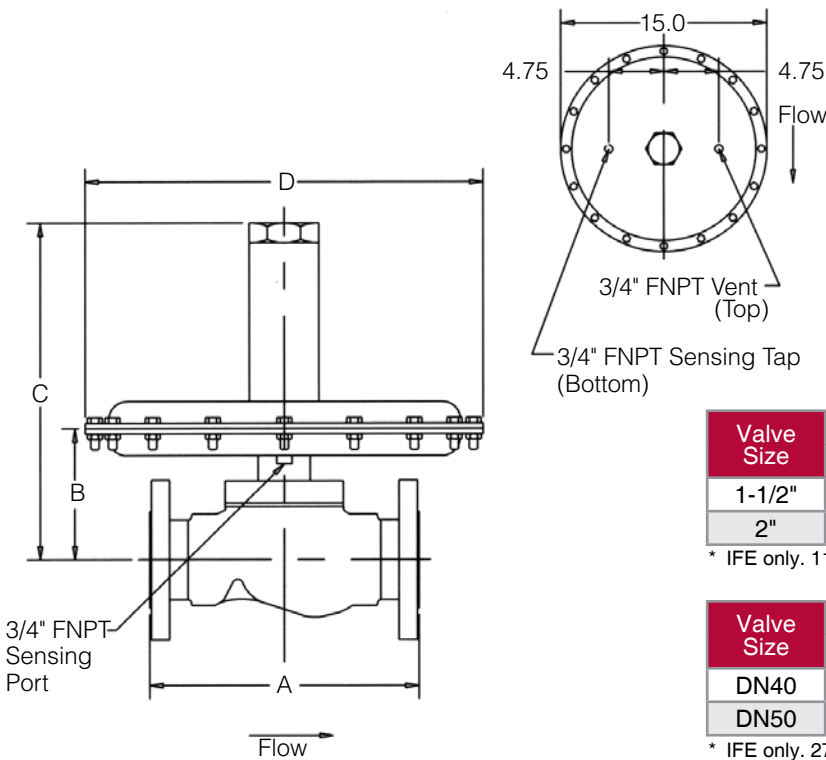
## DIMENSIONS (NPT, SWE, BSPT, BSPP ENDS)



Valve Size	Dimensions (inches)			
	A	B	C	D
1-1/2"	6.75	4.93	12.32	15.0
2"	6.75	4.93	12.32	15.0

Valve Size	Dimensions (metric)			
	A	B	C	D
DN40	171,5	125,2	313	381
DN50	171,5	125,2	313	381

## DIMENSIONS (150# FLANGED ENDS)



Valve Size	ANSI Flange	Dimensions (inches)			
		A	B	C	D
1-1/2"	150#	8.75*	4.93	12.32	15.0
2"	150#	10.00	4.93	12.32	15.0

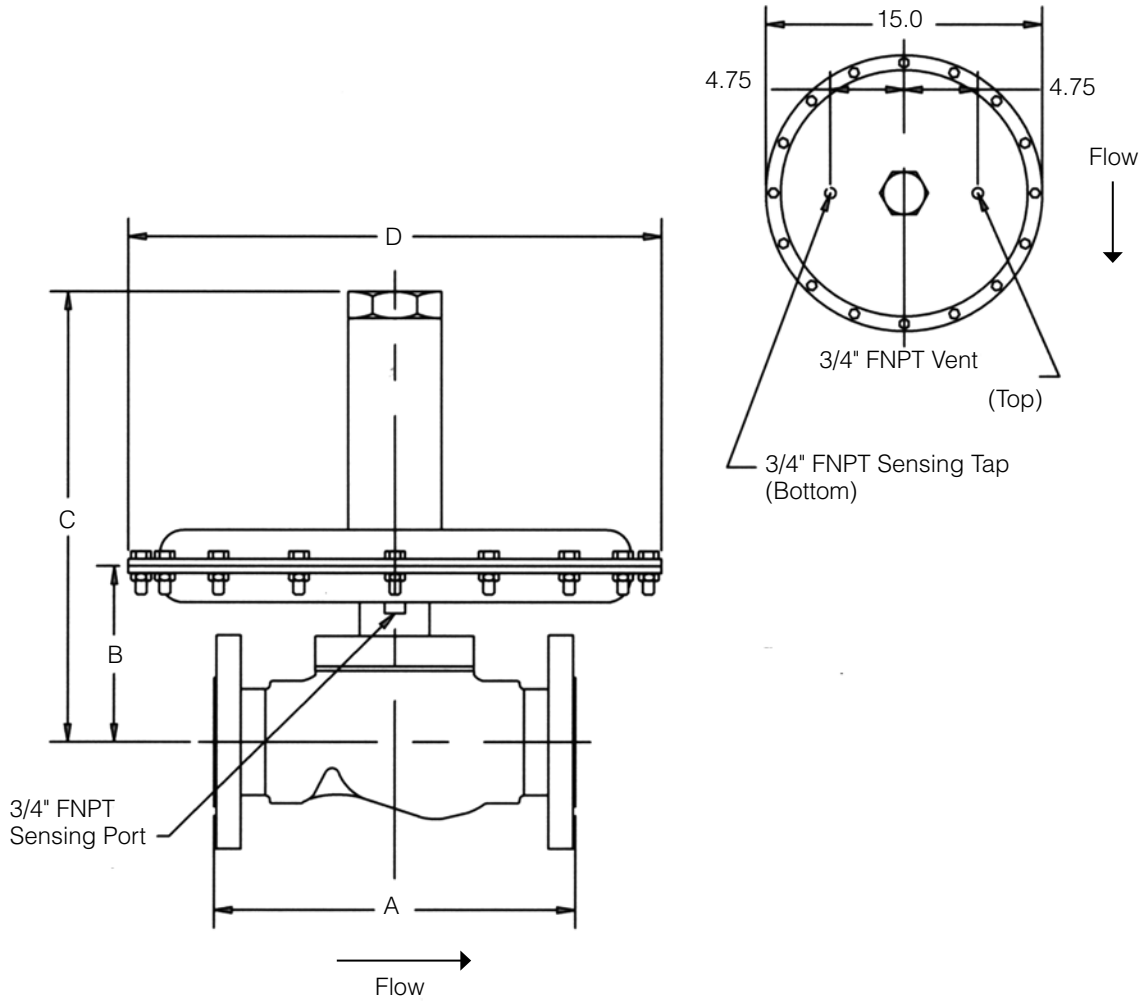
\* IFE only. 11.00" for WFE and TFE

Valve Size	ANSI Flange	Dimensions (metric)			
		A	B	C	D
DN40	PN10/16	222,3*	125,2	313	381
DN50	PN10/16	254.0	125,2	313	381

\* IFE only. 279,45mm for WFE and TFE

MARK 608 GAS PRESSURE REGULATOR

**DIMENSIONS (300# FLANGED ENDS)**



Valve Size	ANSI Flange	Dimensions (inches)			
		A	B	C	D
1-1/2"	300#	9.25*	4.93	12.32	15.0
2"	300#	10.50	4.93	12.32	15.0

\* IFE only. 11.00" for WFE and TFE

Valve Size	ANSI Flange	Dimensions (metric)			
		A	B	C	D
DN40	PN40	235,0*	125,2	313	381
DN50	PN40	266,7	125,2	313	381

\* IFE only. 279,45mm for WFE and TFE

MARK 608 GAS PRESSURE REGULATOR

1-1/2" MARK 608 SERIES FLOW CAPACITIES

			Inlet Pressure										
Range	Set Point	Accuracy	2.0 psi (0,14 bar)	3.0 psi (0,21 bar)	5.0 psi (0,34 bar)	10.0 psi (0,7 bar)	15.0 psi (1,0 bar)	20.0 psi (1,4 bar)	25.0 psi (1,7 bar)	30.0 psi (2,1 bar)	40.0 psi (2,8 bar)	50.0 psi (3,5 bar)	60.0 psi (4,1 bar)
2.0 - 5.0 WC	3.0" WC	0.75" WC	4853	5185	5999								
5,0 - 12,5 mbar	7,5 mbar	1,9 mbar	137	147	170								
4.0 - 8.0" WC	5.0" WC	1" WC	4675	5532	6748	8599							
	7.0" WC		4987	5747	6482	6984							
10,0 - 20,0 mbar	12,5 mbar	2,5 mbar	132	157	191	246							
	17,4 mbar		141	163	184	198							
8.0 - 28" WC	10.0" WC	1.5" WC	5601	5297	6622	7720	8468	7638					
	25.0" WC		4293	4672	4357	4858	6876	7220					
20,0 - 70,0 mbar	24,9 mbar	3,7 mbar	159	150	188	219	240	216					
	62,3 mbar		122	132	123	138	195	204					
10.0 - 17.0" WC	12.0" WC	2" WC	4582	5984	7169	10367	10228	10838					
	15.0" WC		4297	5200	7111	9778	10310	10748					
24,9 - 42,4 mbar	28,9 mbar	5,0 mbar	130	169	203	294	290	307					
	37,4 mbar		122	147	201	277	292	304					
14.0 - 28.0" WC	15.0" WC	2.5" WC	4070	5737	8261	10811	12068	13414	13120	14768	18382	22625	26656
	25.0" WC		3123	4487	6675	9057	10792	11608	12938	14614	18310	22315	26307
34,9 - 70,0 mbar	37,4 mbar	6,2 mbar	115	162	234	306	342	380	372	418	520	640	754
	62,3 mbar		88	127	189	256	306	329	366	414	518	632	744
0.75 - 1 psi	0.75 psi	0.25 psi	4843	7253	9628	11573	13833	15278	17038	19240	24148	29419	34672
	1 psi		4638	6286	9501	11557	13892	15253	17026	19234	24071	29344	34599
51,7 - 69,0 mbar	51,7 mbar	12,9 mbar	137	205	273	328	392	433	482	544	683	833	981
	68,8 mbar		131	178	269	327	393	432	482	544	681	830	979
1 - 2 psi	1.5 psi	0.3 psi		4352	8736	11529	13957	15514	17358	19667	24473	29873	35253
	2.0 psi			3505	7588	11281	13764	15351	17206	19499	24129	29494	34836
69,0 - 137,9 mbar	0,10 bar	20,7 mbar		123	247	326	395	439	492	557	693	845	998
	0,14 bar			99	215	319	390	435	487	552	683	835	986
1.5 - 3 psi	2.0 psi	0.4 psi		3929	8034	11339	13874	15466	17332	19499	24313	29719	35102
	3.0 psi				6057	10924	13626	15327	17252	19448	23925	29185	34535
0.10 - 0.21 bar	0,14 bar	27,5 mbar		111	228	321	393	438	491	552	688	841	993
	0,21 bar				172	309	386	434	489	550	677	826	977
3 - 5 psi	3.5 psi	0.5 psi			3507	10781	13598	15365	17332	19712	24286	29472	34908
	5.0 psi					9639	12792	14682	16688	19145	23706	28339	33665
0,21 - 0,34 mbar	0,24 bar	34,4 mbar			99	305	385	435	491	558	687	834	988
	0,34 bar					273	362	416	473	542	671	802	953

Nitrogen at 0.97 s.g. in scfh and Nm<sup>3</sup>/hr  
 Operation in shaded areas not recommended

MARK 608 GAS PRESSURE REGULATOR

2" MARK 608 SERIES FLOW CAPACITIES

Range	Set Point	Accuracy	Inlet Pressure											
			2.0 psi (0,14 bar)	3.0 psi (0,21 bar)	5.0 psi (0,34 bar)	10.0 psi (0,7 bar)	15.0 psi (1,0 bar)	20.0 psi (1,4 bar)	25.0 psi (1,7 bar)	30.0 psi (2,1 bar)	40.0 psi (2,8 bar)	50.0 psi (3,5 bar)	60.0 psi (4,1 bar)	
2.0 - 5.0 WC	3.0" WC	0.75" WC	5392	5761	6666									
5,0 - 12,5 mbar	7,5 mbar	1,9 mbar	153	163	189									
4.0 - 8.0" WC	5.0" WC	1" WC	5195	6147	7498	9554								
	7.0" WC		5541	6385	7202	7760								
10,0 - 20,0 mbar	12,5 mbar	2,5 mbar	147	174	212	271								
	17,4 mbar		157	181	204	220								
8.0 - 28" WC	10.0" WC	1.5" WC	6223	5885	7358	8578	9408	8486						
	25.0" WC		4770	5191	4841	5398	7640	8022						
20,0 - 70,0 mbar	24,9 mbar	3,7 mbar	176	167	208	243	266	240						
	62,3 mbar		135	147	137	153	216	227						
10.0 - 17.0" WC	12.0" WC	2" WC	5091	6649	7965	11519	11365	12042						
	15.0" WC		4775	5778	7901	10864	11456	11942						
24,9 - 42,4 mbar	28,9 mbar	5,0 mbar	144	188	226	326	322	341						
	37,4 mbar		135	164	224	308	324	338						
14.0 - 28.0" WC	15.0" WC	2.5" WC	4523	6374	9179	12013	13409	14904	14578	16409	20646	25140	29618	
	25.0" WC		3470	4986	7416	10063	11991	12898	14376	16403	20552	25048	29528	
34,9 - 70,0 mbar	37,4 mbar	6,2 mbar	128	180	260	340	380	422	413	464	584	711	838	
	62,3 mbar		98	141	210	285	340	365	407	464	582	709	836	
0.75 - 1 psi	0.75 psi	0.25 psi	5382	8059	10698	12859	15370	16976	18931	21328	26769	32612	38435	
	1 psi		5153	6984	10556	12841	15436	16948	18918	21321	26684	32529	38354	
51,7 - 69,0 mbar	51,7 mbar	12,9 mbar	152	228	303	364	435	481	536	604	758	923	1088	
	68,8 mbar		146	198	299	364	437	480	536	603	755	921	1085	
1 - 2 psi	1.5 psi	0.3 psi			4835	9706	12810	15508	17238	19286	21901	27254	33268	39260
	2.0 psi				3895	8431	12534	15293	17056	19118	21731	26892	32871	38825
69,0 - 137,9 mbar	0,10 bar	20,7 mbar			137	275	363	439	488	546	620	771	941	1111
	0,14 bar				110	239	355	433	483	541	615	761	930	1099
1.5 - 3 psi	2.0 psi	0.4 psi			4365	8927	12599	15412	17185	19258	21880	27076	33096	39091
	3.0 psi					6731	12138	15140	17030	19169	21823	26847	32750	38753
0.10 - 0.21 bar	0,14 bar	27,5 mbar			124	253	357	436	487	545	619	766	937	1106
	0,21 bar					191	344	429	482	543	618	760	927	1097
3 - 5 psi	3.5 psi	0.5 psi			3897	11979	15109	17072	19258	21436	27025	32796	34908	
	5.0 psi					10710	14214	16314	18543	21207	26259	31391	37290	
0,21 - 0,34 mbar	0,24 bar	34,4 mbar			110	339	428	483	545	607	765	928	988	
	0,34 bar					303	402	462	525	600	743	888	1055	

Nitrogen at 0.97 s.g. in scfh and Nm<sup>3</sup>/hr  
 Operation in shaded areas not recommended

**ORDERING SCHEMATIC**

Model No	Size	Body Mat'l	1	2	3	4	5	6	7	8	9	10	11	12

Model	
608	Standard

3 & 4		Seat & Diaphragm	
BN		Buna - N	
VN		Viton	
EN		EPDM	

Size	
150	1-1/2" (DN40)
200	2" (DN50)

5 & 6		Range	
		W.C.	mbar
07		2 - 5" W.C.	5,0 - 12,5 mbar
08		4 - 8" W.C.	10,0 - 19,9 mbar
09		8 - 28" W.C.	19,9 - 70,0 mbar
10		10 - 17" W.C.	24,9 - 42,3 mbar
11		14 - 28" W.C.	34,9 - 70,0 mbar
12		0.75 - 1 psi	51,7 - 69,0 mbar
13		1 - 2 psi	69,0 - 137,9 mbar
14		1.5 - 3 psi	0,10 - 0,21 bar
15		3 - 5 psi	0,21 - 0,34 bar
ZZ		Non-Standard	

Body Material	
BR	Bronze
CS	Carbon Steel (WCB)
S6	Stainless Steel (CF8M)

7 & 8		Actuator	
SD		Standard	
ZZ		Non-Standard	

1 & 2		End Connections	
PT		NPT	
BT		BSPT	
BP		BSPP	
SW		FSW	
F1		125#FE	
F5		150# FE	
F2		250# FE	
F3		300# FE	
F7		PN10 DIN FE	
F6		PN16 DIN FE	
F8		PN25 DIN FE	
F4		PN40 DIN FE	
I3		IFE 300#	
I5		IFE 150#	
ZZ		Non-Standard	

9 & 10		Bushing	
TF		Teflon	
CG		Carbon Graphite	
ZZ		Non-Standard	

11 & 12		PED Compliance	
00		Not Required	
FF		CE Category 1	
ZZ		Non-Standard	

