

P627 High Flow Gas Regulator



- Wide Range of Flow Capacities
- Durable Powder Coated Exterior
- Installation Versatility
- NACE Construction Available

The P627 is a spring loaded, direct-operated regulator for both low and high pressure applications in the oil and gas industries. These regulators provide durability, from the powder-coated epoxy exterior finish, as well as installation versatility, from the multi-position body and spring case configurations. These regulators are also available in an external pressure registration model (P627M), and NACE construction.

Applications

- Farm Tap Regulation
- Monitoring Regulators
- Gate Regulators
- Fuel Gas
- Gas Gathering
- Pressure Reduction



Materials of Construction

Body, Bonnet, Diaphragm Case	
Options	Steel Body, Bonnet & Diaphragm Case
	Cast Ductile Iron Body / Aluminum Bonnet & Diaphragm Case
	Steel Body / Aluminum Bonnet & Diaphragm Case (NACE only)
	Steel Casing / LCC Body
	Aluminum / LCC Body
Diaphragm	
Option	Nitrile (low pressure) or Neoprene (high pressure)
Seat	
Options	Nitrile
	Nylon
Orifice	
Options	Aluminum
	Stainless Steel (NACE only)

Specifications

Maximum Inlet Body Pressure		
Nylon Seat	2000 PSIG	Steel
	1000 PSIG	Ductile Iron
	1485 PSIG	Flanged Steel
Nitrile Seat	1000 PSIG	All Units
Outlet		
5–500 PSIG		
Body Sizes		
3/4 NPT		
1 NPT		
2 NPT		
Orifice Sizes		
3/32"		
1/8"		
3/16"		
1/4"		
3/8"		
1/2"		
Outlet Range		Flow Range*
5–20 PSIG		300–43,000
15–40 PSIG		1,000–71,000
35–80 PSIG		1,200–142,000
10–95 PSIG		1,000–150,000
70–150 PSIG		2,500–172,000
140–250 PSIG		3,200–95,000
240–500 PSIG		4,500–140,000
* (SCFH of 0.6 S.G. Natural Gas)		
Temperature Range		
–20° to 180 °F		(–18° to 82 °C)
Weight Approximate		
1"	5.3 lbs	2.39 kg
2"	8.8 lbs	3.96 kg

Maximum Bonnet and Diaphragm Casing Pressure	Spring & Diaphragm Casing Style	P627		P627M		P627H & P627HM	
		PSIG	BAR	PSIG	BAR	PSIG	BAR
Maximum pressure to spring and diaphragm casing to prevent leak to atmosphere (internal parts damage may occur).	Die Cast Aluminum	250	17.2	N/A	N/A	N/A	N/A
	Steel	250	17.2	250	17.2	800	55.2
Maximum pressure to spring and diaphragm casings to prevent burst of casings during abnormal operation (leak to atmosphere and internal parts may occur).	Die Cast Aluminum	375	25.9	N/A	N/A	N/A	N/A
	Steel	1200	82.7	1200	82.7	1200	82.7
Maximum diaphragm casing overpressure to prevent damage to internal parts.	All	60	4.1	60	4.1	120	8.3

P627 Regulator Rebuild Kits

	Kit Includes	Part Number
P627 Low Pressure	Nitrile diaphragms (2), Nitrile valve disk, O'rings, back-up rings, and retaining pin	971-627-000
	Nitrile diaphragms (2), Nylon valve disk, O'rings, back-up rings, and retaining pin.	971-627-001
P627 High Pressure	Neoprene diaphragm, Nitrile valve disk, O'rings, back-up rings, and retaining pin	971-627-002
	Neoprene diaphragm, Nylon valve disk, O'rings, back-up rings, and retaining pin	971-627-003

	Kit Includes	Part Number
P627 Low Pressure NACE	Nitrile diaphragms (2), SS Nitrile valve disk, O'rings, back-up rings, and retaining pin	971-627-N00
	Nitrile diaphragms (2), SS Nylon valve disk, O'rings, back-up rings, and retaining pin	971-627-N01
P627 High Pressure NACE	Neoprene diaphragm, SS Nitrile valve disk, O'rings, back-up rings, and retaining pin	971-627-N02
	Neoprene diaphragm, SS Nylon valve disk, O'rings, back-up rings, and retaining pin	971-627-N03

P627 Part Matrix

P627							1	
	▲	▲	▲	▲	▲	▲	▲	Port Size
06								3/4"
08								1"
16								2"
								Spring Range
								PSIG BAR
020								5 - 20 0.34 - 1.4
040								15 - 40 1 - 2.8
080								35 - 80 2.4 - 5.5
095								10 - 95 0.7 - 6.6
150								70 - 150 4.8 - 10.3
250**								140 - 250* 9.7 - 17.2
500**								240 - 500* 16.5 - 34.5
								Special Adders
0								None
2								Monitor*
A								150 #RF*
B								300 #RF*
C								600 #RF*
D								Socket Weld*
E								900 #RTJ*
W								150 #RF & Monitor*
X								300 #RF & Monitor*
Y								600 #RF & Monitor*
Z								Socket Weld & Monitor*
								Versions
0								Standard
N								NACE*
F								NACE & Fluorocarbon Elastomers*
T								Stainless Trim*
								Orifice
0								3/32"
2								1/8"
3								3/16"
4								1/4"
6								3/8"
8								1/2"
								Seat Material
0								Nitrile
1								Nylon
								Case / Body
0								Aluminum / Iron
1								Steel / Steel
2								Aluminum / Steel*
6								Aluminum / LCC Steel
7								Steel / LCC Steel
8								Steel / Iron

* Steel Casing/Steel Body Only
NOTE: Nitrile Seat is required for 5-20 psi, 15-40 and 10-95 psi ranges. Nylon Seat is recommended for psi above 140. Consult factory for questions

** P627H or High Pressure Units.

*Steel Casing/Steel Body Only

*Available as Steel/Steel or Aluminum/Steel Only

NOTE: Nitrile Seat is required for 5-20 psi, 15-40 and 10-95 psi ranges. Nylon Seat is recommended for psi above 140. Consult factory for questions.

* Supplied only with NACE components, specify 'N' in part number.

P627 Flow Capacities of Natural Gas (0.6 S.G.) in SCFH¹



Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		3/4" Body Size						1" Body Size					
					Port Diameter, inches						Port Diameter, inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2	3/32	1/8	3/16	1/4	3/8	1/2
5 to 20 psig ² (0.34 to 1.4 BAR)	5 ³	0.34	10	0.69	170	320	700	1060	1540	1900	170	330	710	1100	1900	2500
			15	1.0	240	330	810	1300	2150	3350	240	390	890	1600	2500	3350
			20	1.4	290	460	1140	1800	3050	4350	290	500	1160	2060	3400	4450
			30	2.1	380	610	1530	2490	3880	6850	380	670	1560	2800	4750	6900
			60	4.1	640	1170	2550	4240	6270	7370	640	1170	2600	4710	8140	13,700
			75	5.2	770	1410	3020	5100	6620	7700	770	1410	3150	5710	9790	14,500
			100	6.9	990	1800	3800	5980	7440	7900	990	1800	4070	7310	12,500	16,000
	10	0.69	15	1.03	210	320	800	1290	2100	3300	210	375	880	1590	2480	3300
			20	1.4	280	455	1130	1790	3000	4300	280	490	1150	2050	3380	4410
			30	2.1	380	610	1530	2480	3860	6830	380	670	1560	2800	4720	6840
			60	4.1	640	1170	2550	4240	6270	7370	640	1170	2600	4710	8140	13,700
			75	5.2	770	1410	3020	5100	6620	7700	770	1410	3150	5710	9790	14,500
			100	6.9	990	1800	3800	5980	7440	7900	990	1800	4070	7310	12,500	16,000
			150	10.3	1420	2580	5700	7130	8180	8200	1420	2580	5850	10,500	17,000	18,000
			200	13.8	1850	3370	6970	7250	8200	8300	1850	3370	7630	13,700	18,000	18,500
			300	20.7	2700	4910	8000	8050	8250		2700	4910	11,200	19,800	20,000	
			500	34.5	4010	8090	8060	8100			4400	8090	15,700	20,000		
			750	51.7	4400	8930	8950				5400	12,000	18,000			
			1000	69.0	4450	10,300					5800	14,000				
			1250	86.2	4540						6300					
			1500	103	4880						6600					
			1750	121	5230						6800					
			2000	138	5900						7600					
	20	1.4	30	2.1	350	620	1400	2490	4360	6290	350	620	1450	2580	4360	6290
			50	3.4	550	1000	2280	4010	7870	8500	550	1000	2280	4090	7870	14,100
			60	4.1	640	1170	2640	4680	8340	8940	640	1170	2640	4750	9690	14,500
			100	6.9	990	1800	3980	7220	11,500	12,600	990	1800	4070	7310	13,900	23,300
			150	10.3	1420	2580	5850	10,400	12,100	13,100	1420	2580	5850	10,500	17,700	34,200
			200	13.8	1850	3370	7340	12,000	13,200	13,700	1850	3370	7630	13,700	26,600	39,100
			300	20.7	2700	4910	11,200	13,000	15,600		2700	4910	11,200	20,100	37,000	
			500	34.5	4400	8090	18,300	15,100			4400	8090	18,300	32,900		
			750	51.7	6600	12,000	14,200				6600	12,000	23,600			
			1000	69.0	7300	14,600					8900	16,000				
			1250	86.2	7500						10,000					
			1500	103	7800						10,400					
			1750	121	8400						12,000					
			2000	138	8600						14,000					
15 to 40 PSIG (1.0 to 2.8 BAR)	40	2.8	60	4.1	610	1090	2530	4350	8140	9420	610	1090	2530	4510	9290	9420
			75	5.2	760	1370	3080	5510	10,300	13,600	760	1370	3080	5640	10,800	16,500
			100	6.9	990	1790	4070	7220	13,200	15,300	990	1790	4070	7310	14,700	21,900
			150	10.3	1420	2580	5850	10,400	17,400	18,200	1420	2580	5850	10,500	20,500	34,500
			200	13.8	1850	3370	7630	13,500	18,000	18,500	1850	3370	7630	13,700	27,100	46,400
			300	20.7	2700	4910	11,200	18,500	20,000	20,700	2700	4910	11,200	20,100	40,100	67,100
			500	34.5	4400	8090	18,300	24,000	27,000		4400	8090	18,300	32,900	63,900	
			750	51.7	6600	12,000	23,000	24,200			6600	12,000	27,200	39,400		
			1000	69.0	8700	16,000	24,400				8700	16,000	36,100			
			1250	86.2	11,000	18,000					11,000	19,000				
			1500	103	12,000	21,000					13,000	22,000				
			1750	121	13,000						15,000					
			2000	138	14,000						17,000					
35 to 80 PSIG (2.4 to 5.5 BAR)	60	4.1	75	5.2	700	1230	2760	4750	8620	15,200	700	1230	2760	4880	8630	16,100
			100	6.9	970	1740	4010	6990	12,800	17,300	970	1740	4010	7000	13,000	19,300
			150	10.3	1420	2580	5850	10,300	18,600	23,000	1420	2580	5850	10,500	18,900	32,800
			200	13.8	1850	3370	7630	13,500	21,600	27,400	1850	3370	7630	13,700	24,000	42,200
			300	20.7	2700	4910	11,200	19,800	26,100	30,100	2700	4910	11,200	20,100	32,500	69,100
			500	34.5	4400	8090	18,300	28,100	28,900	33,400	4400	8090	18,300	32,900	64,000	94,300
			750	51.8	6600	12,000	26,300	30,000	37,000	45,000	6600	12,000	27,200	43,380	66,000	130,000
			1000	69.0	8700	16,000	30,000	31,200	37,400		8700	16,000	36,100	50,300	67,700	
			1250	86.2	11,000	19,000	31,600	34,000			11,000	19,000	45,000	57,000		
			1500	103	13,000	22,000	30,400	36,000			13,000	22,000	54,000	63,000		
			1750	121	15,000	25,000	34,000				15,000	25,000	63,000			
			2000	138	17,000	28,000					17,000	28,000				
	80	5.5	100	5.2	900	1600	3750	6490	12,200	17,300	900	1600	3750	6650	12,200	18,600
			150	10.3	1410	2580	5850	10,200	19,600	25,700	1410	2580	5850	10,500	21,100	33,600
			200	13.8	1850	3370	7630	13,500	25,400	29,300	1850	3370	7630	13,700	28,400	44,100
			300	20.7	2700	4910	11,200	19,800	32,700	33,500	2700	4910	11,200	20,100	43,300	75,400
			500	34.5	4400	8090	18,300	31,900	36,000	36,700	4400	8090	18,300	32,900	71,600	110,000
			750	51.8	6600	12,000	27,200	35,000	44,000	46,000	6600	12,000	27,200	48,900	105,500	135,000
			1000	69.0	8700	16,000	36,100	38,000	56,200		8700	16,000	36,100	64,900	118,000	
			1250	86.2	11,000	19,000	37,000	40,000			11,000	19,000	45,000	80,000		
			1500	103	13,000	22,000	38,000	44,000			13,000	22,000	54,000	96,000		
			1750	121	15,000	25,000	42,000				15,000	25,000	63,000			
			2000	138	17,000	28,000					17,000	28,000				

1. Capacity is based on 20 percent drop unless otherwise noted below.
2. For pressure setting under 10 PSIG (0.69 BAR) limit the input pressure to 100 PSIG (6.9 BAR) to obtain the setpoint.
3. For 5 PSIG (0.34 BAR) pressure set point, the drop is 2 PSIG (0.14 BAR)

P627 Flow Capacities of Natural Gas (0.6 S.G.) in SCFH¹

Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		3/4" Body Size						1" Body Size					
					Port Diameter, inches						Port Diameter, inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2	3/32	1/8	3/16	1/4	3/8	1/2
70 to 150 PSIG (4.8 to 10.3 BAR)	100	6.9	150	10.3	1170	2510	5540	8710	16,000	20,300	1170	2510	5540	8710	16,000	24,000
			200	13.8	1850	3370	7630	12,000	21,300	25,700	1850	3370	7630	12,000	21,300	34,100
			300	20.7	2700	4910	11,200	19,400	30,000	31,700	2700	4910	11,200	19,400	30,100	53,200
			500	34.5	4400	8090	18,300	31,800	39,000	39,200	4400	8090	18,300	31,800	66,500	83,900
			750	51.8	6600	12,000	27,200	39,000	39,200	45,900	6600	12,000	27,200	47,300	95,300	117,000
			1000	69.0	8700	16,000	36,100	40,000	40,500	47,000	8700	16,000	36,100	59,700	100,000	120,000
			1250	86.2	11,000	19,000	39,000	40,500	41,000		11,000	19,000	45,000	72,000	114,000	
			1500	103	13,000	22,000	43,000	44,000			13,000	22,000	54,000	86,000		
			1750	121	15,000	25,000	45,000	47,000			15,000	25,000	63,000	95,000		
			2000	138	17,000	28,000	46,000				17,000	28,000	71,000			
	125	8.6	150	10.3	1250	2340	5340	9130	15,700	20,800	1250	2340	5340	9470	15,700	20,800
			200	13.8	1830	3320	7550	13,160	22,500	28,600	1830	3320	7550	13,400	28,100	32,800
			300	20.7	2700	4910	11,200	19,800	32,700	38,000	2700	4910	11,200	20,100	36,300	52,600
			500	34.5	4400	8090	18,300	32,500	43,800	51,700	4400	8090	18,300	32,900	70,800	109,000
			750	51.8	6600	12,000	27,200	48,300	49,900	71,400	6600	12,000	27,200	48,900	104,000	158,000
			1000	69.0	8700	16,000	36,100	50,000	52,900	72,000	8700	16,000	36,100	64,800	138,000	160,000
			1250	86.2	11,000	19,000	45,000	53,000	58,000		11,000	19,000	45,000	80,000	145,000	
			1500	10.	13,000	22,000	51,000	56,000			13,000	22,000	54,000	96,000		
			1750	121	15,000	25,000	52,000	60,000			15,000	25,000	63,000	112,000		
			2000	138	17,000	28,000	53,000				17,000	28,000	71,000			
	150	10.3	200	13.8	1760	3200	7290	12,500	21,400	30,600	1760	3200	7290	12,900	21,400	33,600
			300	20.7	2700	4910	11,200	17,200	34,700	46,000	2700	4910	11,200	17,200	40,100	55,900
			500	34.5	4400	8090	18,300	32,500	48,900	59,700	4400	8090	18,300	32,900	70,300	111,000
			750	51.8	6600	12,000	27,200	48,300	59,000	72,000	6600	12,000	27,200	48,900	104,000	160,000
			1000	69.0	8700	16,000	36,100	64,100	81,100	85,000	8700	16,000	36,100	64,800	138,000	162,000
			1250	86.2	11,000	19,000	45,000	68,000	90,000		11,000	19,000	45,000	80,000	150,000	
			1500	103	13,000	22,000	54,000	72,000			13,000	22,000	54,000	96,000		
			1750	121	15,000	25,000	63,000	77,000			15,000	25,000	63,000	112,000		
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			

Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		627 – 2" Body Size						627M – 2" Body Size					
					Port Diameter, inches						Port Diameter, inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2	3/32	1/8	3/16	1/4	3/8	1/2
5 to 20 psig ² (0.34 to 1.4 BAR)	5 ³	0.34	10	0.69	170	330	710	1080	1700	2400	170	330	710	1080	1700	2400
			15	1.0	240	390	890	1250	1900	2700	240	390	890	1250	1900	2700
			20	1.4	290	500	1160	1900	2650	3900	290	500	1160	1900	2650	3900
			30	2.1	380	670	1560	2800	3680	6500	380	670	1560	2800	3680	6500
			60	4.1	640	1170	2600	4750	7250	17,800	640	1170	2600	4750	7250	15,000
			75	5.2	770	1410	3150	5700	8060	22,400	770	1410	3150	5700	8060	17,900
			100	6.9	990	1790	4070	7310	16,200	28,700	990	1790	4070	7310	14,600	23,000
	10	0.69	15	1.03	210	375	880	1220	1860	2670	210	375	880	1220	1860	2670
			20	1.4	280	490	1150	1880	2610	3830	280	490	1150	1880	2610	3830
			30	2.1	380	670	1560	2760	3640	6460	380	670	1560	2760	3640	6460
			60	4.1	640	1170	2600	4750	7250	17,800	640	1170	2600	4750	7250	15,000
			75	5.2	770	1410	3150	5700	8060	22,400	770	1410	3150	5700	8060	17,900
			100	6.9	990	1790	4070	7310	16,200	28,700	990	1790	4070	7310	14,600	23,000
			150	10.3	1420	2580	5850	10,500	23,300	25,900 ⁵	1420	2580	5850	10,500	21,000	33,000
			200	13.8	1850	3370	7630	13,700	22,700 ⁵	24,000 ⁵	1850	3370	7630	13,700	27,300	43,000
			300	20.7	2700	4910	11,200	10,300 ⁵	12,800 ⁵		2700	4910	11,200	20,100	40,100	
			500	34.5	4400	8090	18,300	21,000 ⁵			4400	8090	18,300	32,900		
			750	51.7	6600	12,000	27,200				6600	12,000	27,200			
			1000	69.0	8700	16,000					8700	16,000				
			1250	86.2	11,000						11,000					
			1500	103	13,000						13,000					
			1750	121	15,000						15,000					
			2000	138	17,000						17,000					
	20	1.4	30	2.1	350	620	1450	2350	4300	6110	350	620	1450	2480	4300	6110
			50	3.4	550	1000	2280	4040	7100	12,800	550	1000	2280	4040	7100	12,800
			60	4.1	640	1170	2640	4750	8400	15,700	640	1170	2640	4750	8400	15,000
			100	6.9	990	1800	4070	7310	16,200	28,700	990	1800	4070	7310	14,600	23,000
			150	10.3	1420	2580	5850	10,500	23,300	29,000 ⁵	1420	2580	5850	10,500	21,000	33,000
			200	13.8	1850	3370	7630	13,700	24,000 ⁵	33,000 ⁵	1850	3370	7630	13,700	27,300	43,000
			300	20.7	2700	4910	11,200	20,100	19,600 ⁵		2700	4910	11,200	20,100	40,100	
			500	34.5	4400	8090	18,300	32,900			4400	8090	18,300	32,900		
			750	51.7	6600	12,000	27,200				6600	12,000	27,200			
			1000	69.0	8700	16,000					8700	16,000				
			1250	86.2	11,000						11,000					
			1500	103	13,000						13,000					
			1750	121	15,000						15,000					
			2000	138	17,000						17,000					

1. Capacity is based on 20 percent drop unless otherwise noted below.

2. For pressure setting under 10 PSIG (0.69 BAR) limit the input pressure to 100 PSIG (6.9 BAR) to obtain the setpoint.

3. For 5 PSIG (0.34 BAR) pressure set point, the drop is 2 PSIG (0.14 BAR)

5. Capacities are based on 25 percent boost if setting is less than 12 PSIG (0.8 BAR), 3 PSIG (0.2 BAR) boost if setting is from 12 to 60 PSIG (0.2 to 4 BAR), and 5 percent boost if setting is greater than 60 PSIG (4 BAR).

P627 Flow Capacities of Natural Gas (0.6 S.G.) in SCFH¹



Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		627 – 2" Body Size						627M – 2" Body Size					
					Port Diameter, inches						Port Diameter, inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2	3/32	1/8	3/16	1/4	3/8	1/2
15 to 40 PSIG (1.0 to 2.8 BAR)	40	2.8	60	4.1	610	1090	2530	4370	8680	13,300	610	1090	2530	4370	8680	13,300
			75	5.2	760	1370	3080	5540	11,900	19,300	760	1370	3080	5540	10,700	19,300
			100	6.9	990	1800	4070	7310	16,200	25,400	990	1800	4070	7310	14,600	25,400
			150	10.3	1420	2580	5850	10,500	23,300	41,300	1420	2580	5850	10,500	21,000	37,000
			200	13.8	1850	3370	7630	13,700	30,400	53,900	1850	3370	7630	13,700	27,300	48,000
			300	20.7	2700	4910	11,200	20,100	44,600	46,000 ⁵	2700	4910	11,200	20,100	40,100	71,000
			500	34.5	4400	8090	18,300	32,900	22,000 ⁵		4400	8090	18,300	32,900	65,000	
			750	51.7	6600	12,000	27,200	28,000 ⁵			6600	12,000	27,200	48,900		
			1000	69.0	8700	16,000	36,100				8700	16,000	36,100			
			1250	86.2	11,000	19,000					11,000	19,000				
			1500	103	13,000	22,000					13,000	22,000				
			1750		15,000						15,000					
			2000		17,000						17,000					
35 to 80 PSIG (2.4 to 5.5 BAR)	60	4.1	75	5.2	700	1260	2760	4900	9000	12,300	700	1230	2760	4900	9000	12,300
			100	6.9	970	1740	4010	7000	15,000	20,400	970	1740	4010	7000	15,000	20,400
			150	10.3	1420	2580	5850	10,500	23,300	35,200	1420	2580	5850	10,500	23,300	35,200
			200	13.8	1850	3370	7630	13,700	30,400	53,900	1850	3370	7630	13,700	30,400	48,500
			300	20.7	2700	4910	11,200	20,100	44,600	79,000 ⁵	2700	4910	11,200	20,100	44,600	71,000
			500	34.5	4400	8090	18,300	32,900	73,000 ⁵	38,800 ⁵	4400	8090	18,300	32,900	73,000	116,000
			750	51.8	6600	12,000	27,200	48,900 ⁵	53,000 ⁵	32,000	6600	12,000	27,200	48,900	108,000	172,000
			1000	69.0	8700	16,000	36,100	43,000 ⁵	52,000		8700	16,000	36,100	65,000	144,000	
			1250	86.2	11,000	19,000	45,000	70,000 ⁵			11,000	19,000	45,000	81,000		
			1500	103	13,000	22,000	54,000 ⁵	43,000			13,000	22,000	54,000	97,000		
			1750	121	15,000	25,000	26,000				15,000	25,000	63,000			
			2000	138	17,000	28,000					17,000	28,000				
	80	5.5	100	5.2	900	1630	3750	6400	12,000	20,400	900	1630	3750	6400	12,800	20,400
			150	10.3	1410	2580	5850	10,500	23,300	41,300	1410	2580	5850	10,500	23,300	37,200
			200	13.8	1850	3370	7630	13,700	30,400	53,900	1850	3370	7630	13,700	30,400	48,500
			300	20.7	2700	4910	11,200	20,100	44,600	79,000 ⁵	2700	4910	11,200	20,100	44,600	71,000
			500	34.5	4400	8090	18,300	32,900	73,000 ⁵	48,000 ⁵	4400	8090	18,300	32,900	73,000	116,000
			750	51.8	6600	12,000	27,200	48,900	87,000 ⁵	44,000	6600	12,000	27,200	48,900	108,000	172,000
			1000	69.0	8700	16,000	36,100	65,000 ⁵	63,000		8700	16,000	36,100	65,000	144,000	
			1250	86.2	11,000	19,000	45,000	63,000 ⁵			11,000	19,000	45,000	81,000		
			1500	103	13,000	22,000	54,000	86,000			13,000	22,000	54,000	97,000		
			1750	121	15,000	25,000	63,000				15,000	25,000	63,000			
			2000	138	17,000	28,000					17,000	28,000				
70 to 150 PSIG (4.8 to 10.3 BAR)	100	6.9	150	10.3	1170	2510	5540	8600	16,000	22,000	1170	2510	5540	8600	16,000	22,000
			200	13.8	1850	3370	7630	13,700	22,000	33,000	1850	3370	7630	13,700	22,000	33,000
			300	20.7	2700	4910	11,200	20,100	35,000	65,300	2700	4910	11,200	20,100	35,000	59,000
			500	34.5	4400	8090	18,300	32,900	73,000	129,000	4400	8090	18,300	32,900	73,000	116,000
			750	51.8	6600	12,000	27,200	48,900	108,000	54,000 ⁵	6600	12,000	27,200	48,900	108,000	172,000
			1000	69.0	8700	16,000	36,100	64,800	82,000 ⁵		8700	16,000	36,100	64,800	144,000	
			1250	86.2	11,000	19,000	45,000	80,000	110,000 ⁵		11,000	19,000	45,000	80,000	179,000	
			1500	103	13,000	22,000	54,000	96,000			13,000	22,000	54,000	96,000		
			1750	121	15,000	25,000	63,000	112,000			15,000	25,000	63,000	112,000		
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			
	125	8.6	150	10.3	1250	2340	5340	8600	16,000	24,000	1250	2340	5340	8600	16,000	24,000
			200	13.8	1830	3320	7550	13,000	24,000	36,000	1830	3320	7550	13,000	24,000	36,000
			300	20.7	2700	4910	11,200	20,100	39,000	65,300	2700	4910	11,200	20,100	39,000	59,000
			500	34.5	4400	8090	18,300	32,900	73,000	129,000	4400	8090	18,300	32,900	73,000	116,000
			750	51.8	6600	12,000	27,200	48,900	108,000	59,000 ⁵	6600	12,000	27,200	48,900	108,000	172,000
			1000	69.0	8700	16,000	36,100	64,800	58,000 ⁵		8700	16,000	36,100	64,800	144,000	
			1250	86.2	11,000	19,000	45,000	80,000	75,000 ⁵		11,000	19,000	45,000	80,000	179,000	
			1500	103	13,000	22,000	54,000	96,000			13,000	22,000	54,000	96,000		
			1750	121	15,000	25,000	63,000	112,000			15,000	25,000	63,000	112,000		
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			
	150	10.3	200	13.8	1760	3200	7290	13,000	24,000	38,000	1760	3200	7290	13,000	24,000	38,000
			300	20.7	2700	4910	11,200	20,100	44,600	64,200	2700	4910	11,200	20,100	44,600	58,000
			500	34.5	4400	8090	18,300	32,900	73,000	129,000	4400	8090	18,300	32,900	73,000	116,000
			750	51.8	6600	12,000	27,200	48,900	108,000	62,000 ⁵	6600	12,000	27,200	48,900	108,000	172,000
			1000	69.0	8700	16,000	36,100	64,800	144,000		8700	16,000	36,100	64,800	144,000	
			1250	86.2	11,000	19,000	45,000	80,000	81,000 ⁵		11,000	19,000	45,000	80,000	179,000	
			1500	103	13,000	22,000	54,000	96,000			13,000	22,000	54,000	96,000		
			1750	121	15,000	25,000	63,000	112,000			15,000	25,000	63,000	112,000		
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			

1. Capacity is based on 20 percent droop unless otherwise noted below.

5. Capacities are based on 25 percent boost if setting is less than 12 PSIG (0.8 BAR), 3 PSIG (0.2 BAR) boost if setting is from 12 to 60 PSIG (0.2 to 4 BAR), and 5 percent boost if setting is greater than 60 PSIG (4 BAR).

P627 Flow Capacities of Natural Gas (0.6 S.G.) in SCFH¹

Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		627H or HM – 3/4" Body Size						627H or HM – 1" Body Size					
					Port Diameter, inches						Port Diameter, inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2	3/32	1/8	3/16	1/4	3/8	1/2
140 to 250 PSIG (9.7 to 17.2 BAR)	150	10.3	200	13.8	1760 ⁶	3200 ⁴	7290	11,500	21,600	31,000	1760 ⁶	3200 ⁴	7290	11,500	21,600	31,000
			250	17.2	2260 ⁶	4100 ⁴	9200	15,400	28,600	40,000	2260 ⁶	4100 ⁴	9200	15,400	28,600	40,000
			300	20.7	2700	4910	11,200	19,300	31,000	46,000	2700	4910	11,200	19,300	31,000	46,000
			400	27.6	3600	6500	14,800	24,700	40,000	50,000	3600	6500	14,800	25,000	40,000	50,000
			500	34.5	4400	8090	18,300	29,700	51,000		4400	8090	18,300	32,000	51,000	
			750	51.7	6600	12,000	27,200	43,000			6600	12,000	27,200	46,000		
			1000	69.0	8700	16,000	36,100	57,000			8700	16,000	36,100	60,000		
			1250	86.2	11,000	19,000	45,000				11,000	19,000	45,000			
			1500	103	13,000	22,000	54,000				13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000				15,000	25,000	63,000			
			2000	138	17,000	28,000					17,000	28,000				
	200	13.8	250	17.2	2160 ⁶	3850 ⁴	8400	15,000	31,000	41,000	2160 ⁶	3850 ⁴	8400	15,000	31,000	41,000
			300	20.7	2700 ⁶	4910 ⁴	11,200	19,500	36,000	52,000	2700 ⁶	4910 ⁴	11,200	19,500	36,000	52,000
			400	27.6	3600	6500	14,800	25,500	52,000	68,000	3600	6500	14,800	26,500	52,000	68,000
			500	34.5	4400	8090	18,300	31,000	61,000		4400	8090	18,300	33,000	61,000	
			750	51.7	6600	12,000	27,200	45,500			6600	12,000	27,200	49,000		
			1000	69.0	8700	16,000	36,100	60,000			8700	16,000	36,100	65,000		
			1250	86.2	11,000	19,000	45,000				11,000	19,000	45,000			
			1500	103	13,000	22,000	54,000				13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000				15,000	25,000	63,000			
			2000	138	17,000	28,000					17,000	28,000				
	250	17.2	300	20.7	2500 ⁶	4500 ⁴	9900	18,500	37,000	52,000	2500 ⁶	4500 ⁴	9900	18,500	37,000	75,000
			400	27.6	3600 ⁶	6400 ⁴	14,300	26,000	55,000	74,000	3600 ⁶	6400 ⁴	14,300	26,000	55,000	81,000
			500	34.5	4400	8090	18,300	33,000	64,000	87,000	4400	8090	18,300	33,000	64,000	95,000
			750	21.7	6600	12,000	27,200	49,000	93,000		6600	12,000	27,200	49,000	102,000	
			1000	69.0	8700	16,000	36,100	65,000			8700	16,000	36,100	65,000		
			1250	86.2	11,000	19,000	45,000	81,000			11,000	19,000	45,000	81,000		
			1500	103	13,000	22,000	54,000				13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000				15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			
240 to 500 PSIG (16.5 to 34.5 BAR)	250	17.2	300	20.7	2500 ⁶	4500 ⁴	9300	14,000	25,000	37,000	2500 ⁶	4500 ⁴	9300	14,000	25,000	37,000
			400	27.6	3600 ⁶	6400 ⁴	14,300	21,400	36,000	49,000	3600 ⁶	6400 ⁴	14,300	21,400	36,000	49,000
			500	34.6	4400	8090	18,300	26,300	42,000	62,000	4400	8090	18,300	26,300	42,000	62,000
			750	51.7	6600	12,000	27,200	37,100	57,000		6600	12,000	27,200	37,100	57,000	
			1000	69.0	8700	16,000	36,100	47,400			8700	16,000	36,100	47,400		
			1250	86.2	11,000	19,000	45,000	57,000			11,000	19,000	45,000	57,000		
			1500	103	13,000	22,000	54,000				13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000				15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			
	300	20.7	350	24.1	2900 ⁶	5150 ⁴	11,300	18,400	31,000	45,000	2900 ⁶	5150 ⁴	11,300	18,400	31,000	45,000
			400	27.6	3500 ⁶	6200 ⁴	13,700	23,400	40,000	52,000	3500 ⁶	6200 ⁴	13,700	23,400	40,000	52,000
			500	34.5	4400	8090	18,300	32,000	53,000	67,000	4400	8090	18,300	32,000	53,000	67,000
			750	51.7	6600	12,000	27,200	48,000	80,000		6600	12,000	27,200	48,000	80,000	
			1000	69.0	8700	16,000	36,100	62,000			8700	16,000	36,100	62,000		
			1250	86.2	11,000	19,000	45,000	79,000			11,000	19,000	45,000	79,000		
			1500	103	13,000	22,000	54,000				13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000				15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			
240 to 500 PSIG (16.5 to 34.5 BAR)	400	27.6	450	31.0	3600 ⁶	6400 ⁴	14,000	25,000	47,000	67,000	3600 ⁶	6400 ⁴	14,000	25,000	47,000	67,000
			500	34.6	4400 ⁶	8090 ⁴	18,300	32,000	54,000	77,000	4400 ⁶	8090 ⁴	18,300	32,000	54,000	77,000
			750	51.7	6600	12,000	27,200	49,000	91,000		6600	12,000	27,200	49,000	91,000	
			1000	69.0	8700	16,000	36,100	65,000			8700	16,000	36,100	65,000		
			1250	86.2	11,000	19,000	45,000	81,000			11,000	19,000	45,000	81,000		
			1500	103	13,000	22,000	54,000				13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000				15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			
	500	34.5	550	37.9	4300 ⁶	7700 ⁴	16,800	33,000	62,000	90,000	4300 ⁶	7700 ⁴	16,800	33,000	62,000	90,000
			600	47.4	4900 ⁶	8800 ⁴	19,400	37,000	70,000	104,000	4900 ⁶	8800 ⁴	19,400	37,000	70,000	104,000
			750	51.7	6600	12,000	27,200	49,000	88,000	137,000	6600	12,000	27,200	49,000	88,000	140,000
			1000	69.0	8700	16,000	36,100	65,000	130,000		8700	16,000	36,100	65,000	130,000	
			1250	86.2	11,000	19,000	45,000	81,000			11,000	19,000	45,000	81,000		
			1500	103	13,000	22,000	54,000	97,000			13,000	22,000	54,000	97,000		
			1750	121	15,000	25,000	63,000				15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000				17,000	28,000	71,000			

1. Capacity is based on 20 percent droop unless otherwise noted below.

4. Outlet pressure setting may shift ±15 PSIG.

6. Small orifices and low pressure drops may cause the set point to shift +15 psig (1.3 BAR).

P627 Flow Capacities of Natural Gas (0.6 S.G.) in SCFH¹



Outlet Pressure Range	Outlet Pressure Setting		Inlet Pressure		627H or HM – 2" Body Size					
	PSIG	BAR	PSIG	BAR	Port Diameter, inches					
					3/32	1/8	3/16	1/4	3/8	1/2
140 to 250 PSIG (9.7 to 17.2 BAR)	150	10.3	200	13.8	1760 ⁶	3200 ⁴	7290	13,700	24,100	31,000
			250	17.2	2260 ⁶	4100 ⁴	9200	16,100	28,600	40,000
			300	20.7	2700	4910	11,200	19,300	31,000	46,000
			400	27.6	3600	6500	14,800	25,000	40,000	50,000
			500	34.5	4400	8090	18,300	32,000		
			750	51.7	6600	12,000	27,200	48,000		
			1000	69.0	8700	16,000	36,100	65,000		
			1250	86.2	11,000	19,000	45,000			
			1500	103	13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000			
			2000	138	17,000	28,000				
	200	13.8	250	17.2	2160 ⁶	3850 ⁴	8400	16,100	33,000	41,000
			300	20.7	2700 ⁶	4910 ⁴	11,200	20,100	36,000	52,000
			400	27.6	3600	6500	14,800	26,500	52,000	68,000
			500	34.5	4400	8090	18,300	33,000	61,000	
			750	51.7	6600	12,000	27,200	49,000		
			1000	69.0	8700	16,000	36,100	65,000		
			1250	86.2	11,000	19,000	45,000			
			1500	103	13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000			
			2000	138	17,000	28,000				
	250	17.2	300	20.7	2500 ⁶	4500 ⁴	9900	18,500	37,000	75,000
			400	27.6	3600 ⁶	6400 ⁴	14,300	26,000	55,000	81,000
			500	34.5	4400	8090	18,300	33,000	64,000	95,000
			750	51.7	6600	12,000	27,200	49,000	102,000	
			1000	69.0	8700	16,000	36,100	65,000		
			1250	86.2	11,000	19,000	45,000	81,000		
			1500	103	13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000			
240 to 500 PSIG (16.5 to 34.5 BAR)	250	17.2	300	20.7	2500 ⁶	4500 ⁴	9300	14,000	25,000	37,000
			400	27.6	3600 ⁶	6400 ⁴	14,300	21,400	36,000	49,000
			500	34.6	4400	8090	18,300	26,300	42,000	62,000
			750	51.7	6600	12,000	27,200	37,100	57,000	
			1000	69.0	8700	16,000	36,100	47,400		
			1250	86.2	11,000	19,000	45,000	57,000		
			1500	103	13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000			
	300	20.7	350	24.1	2900 ⁶	5150 ⁴	11,300	18,400	31,000	45,000
			400	27.6	3500 ⁶	6200 ⁴	13,700	23,400	40,000	52,000
			500	34.5	4400	8090	18,300	32,000	53,000	67,000
			750	51.7	6600	12,000	27,200	48,000	80,000	
			1000	69.0	8700	16,000	36,100	62,000		
			1250	86.2	11,000	19,000	45,000	79,000		
			1500	103	13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000			
240 to 500 PSIG (16.5 to 34.5 BAR)	400	27.6	450	31.0	3600 ⁶	6400 ⁴	14,000	25,000	47,000	67,000
			500	34.6	4400 ⁶	8090 ⁴	18,300	32,000	54,000	77,000
			750	51.7	6600	12,000	27,200	49,000	91,000	
			1000	69.0	8700	16,000	36,100	65,000		
			1250	86.2	11,000	19,000	45,000	81,000		
			1500	103	13,000	22,000	54,000			
			1750	121	15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000			
	500	34.5	550	37.9	4300 ⁶	7700 ⁴	16,800	33,000	62,000	90,000
			600	47.4	4900 ⁶	8800 ⁴	19,400	37,000	70,000	104,000
			750	51.7	6600	12,000	27,200	49,000	88,000	140,000
			1000	69.0	8700	16,000	36,100	65,000	130,000	
			1250	86.2	11,000	19,000	45,000	81,000		
			1500	103	13,000	22,000	54,000	97,000		
			1750	121	15,000	25,000	63,000			
			2000	138	17,000	28,000	71,000			

1. Capacity is based on 20 percent droop unless otherwise noted below.

4. Outlet pressure setting may shift ± 15 PSIG.

6. Small orifices and low pressure drops may cause the set point to shift +15 psig (1.3 BAR).

P627 Flow Coefficients

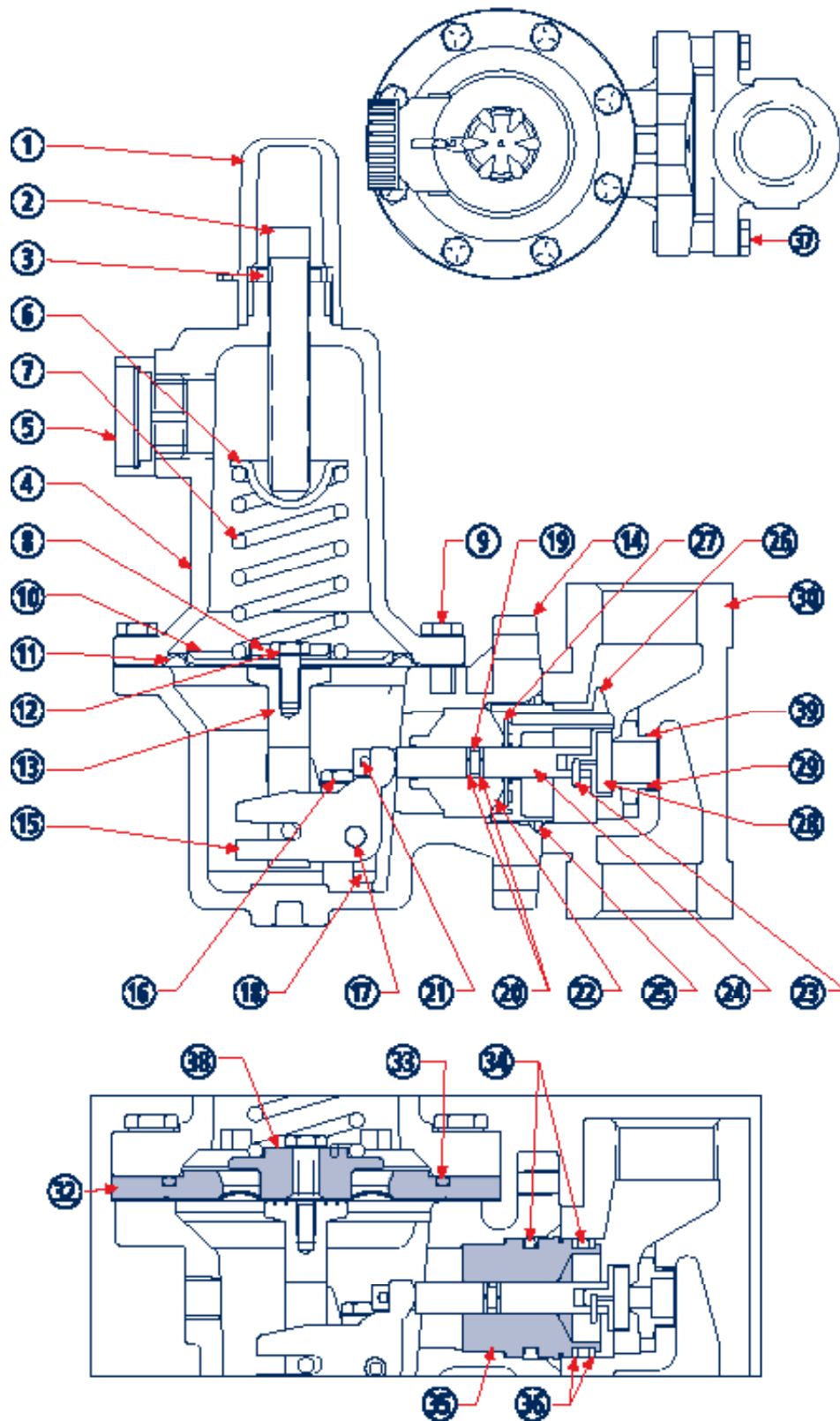
Orifice Size		3/4 Inch Body			1 Inch (DIN 25) Body			2 Inch (DIN 50) Body			K
Inches	mm	Wide-Open C _v for External Relief Sizing	Wide-Open C _v for External Relief Sizing	C ₁	Wide-Open C _v for External Relief Sizing	Wide-Open C _v for External Relief Sizing	C ₁	Wide-Open C _v for External Relief Sizing	Wide-Open C _v for External Relief Sizing	C ₁	
3/32	2.4	6.9	0.24	29.2	6.9	0.24	28.5	6.9	0.23	29.7	0.72
1/8	3.2	12.5	0.43	29.1	12.5	0.43	29.4	12.5	0.42	29.5	0.62
3/16	4.8	29	1.01	28.6	29	0.93	31.2	29	1.02	28.5	0.72
1/4	6.4	50	1.63	30.5	50	1.71	29.3	52	1.66	31.3	0.76
3/8	9.5	108	2.99	36.1	108	3.42	31.6	115	3.39	33.9	0.79
1/2	12.7	190	4.87	39.0	190	5.29	35.9	200	5.01	39.9	.074

P627 Parts

Item	Description	Part Number
1	Cover Adj. Screw, plastic	610-053-000
2	Adjustment Screw	648-465-000
3	Locknut	634-154-000
4	Bonnet, P627 - Aluminum	604-210-000
	Bonnet, P627M, P627H & P627HM - Steel	604-211-000
5	Vent Screw Assembly	836-005-000
6	Spring Guide, Upper	626-079-000
7	Range Spring	
	5-20 PSIG–Yellow	655-661-000
	15-40 PSIG–Green	655-661-001
	35-80 PSIG & 10-95–PSIG Blue	655-661-002
	70-150 PSIG–Red	655-661-003
	140-250 PSIG–Blue	655-661-002
	240-500 PSIG–Red	655-661-003
8	Spring Guide, Lower (P627 or P627M only)	643-191-000
9	Build Screw, Spring Case (8 required)	
	P627 - Aluminum	648-466-000
	P627 or P627M - Steel	648-467-003
	P627H or P627HM	648-467-002
10	Diaphragm Piston (P627 or P627M only)	637-306-000
11	Diaphragm P627 & P627M	
	Aluminum/Iron Case (Nitrile)	618-069-000
	Steel Case (Nitrile)	618-070-000
	Diaphragm P627H & P627HM	
	Steel Case (Neophene)	618-070-001
12	Screw, Diaphragm P627 & P627M	648-466-002
	Screw, Diaphragm P627H & P627HM	648-467-000
13	Post, Pusher P627 & P627M Assy	827-005-000
	Post, Pusher P627H & P627HM Assy	827-005-001
	Post, Pusher P627 & P627M, NACE	827-008-000
	Post, Pusher P627H & P627HM, NACE	827-008-001
14	Diaphragm Case P627 - Aluminum	629-202-000
	Diaphragm Case P627 & P627H - Steel	629-203-000
	Diaphragm Case P627M & P627HM- Steel	629-204-000
	Diaphragm Case, Aluminum/Steel Body	629-215-000
15	Lever	703-004-000
	Lever, NACE	703-005-000
16	Lever Screw (2 required)	648-466-002
	Lever Screw, NACE (2 required)	648-474-000
17	Pin, Lever	635-053-000
	Pin, Lever, NACE	635-057-000
18	Lever Retainer	643-192-000
	Lever Retainer, NACE	643-194-000
19	Stem O-ring, Nitrile	649-000-003
20	Stem Backup Ring, TFE (2 required)	644-047-000
21	Pin, Groove	635-054-000
	Pin, Groove NACE	635-058-000
22	Stem Guide	626-083-000
23	Pin Clip	635-055-000
	Pin Clip NACE	635-056-000
24	Stem, 316SS	689-005-000
25	Diaphragm Case O-ring, Nitrile (P627 & P627H)	649-280-000
26	Boost Body P627 or P627H	686-003-000
27	Stabilizer, Nitrile P627 or P627H	649-278-000

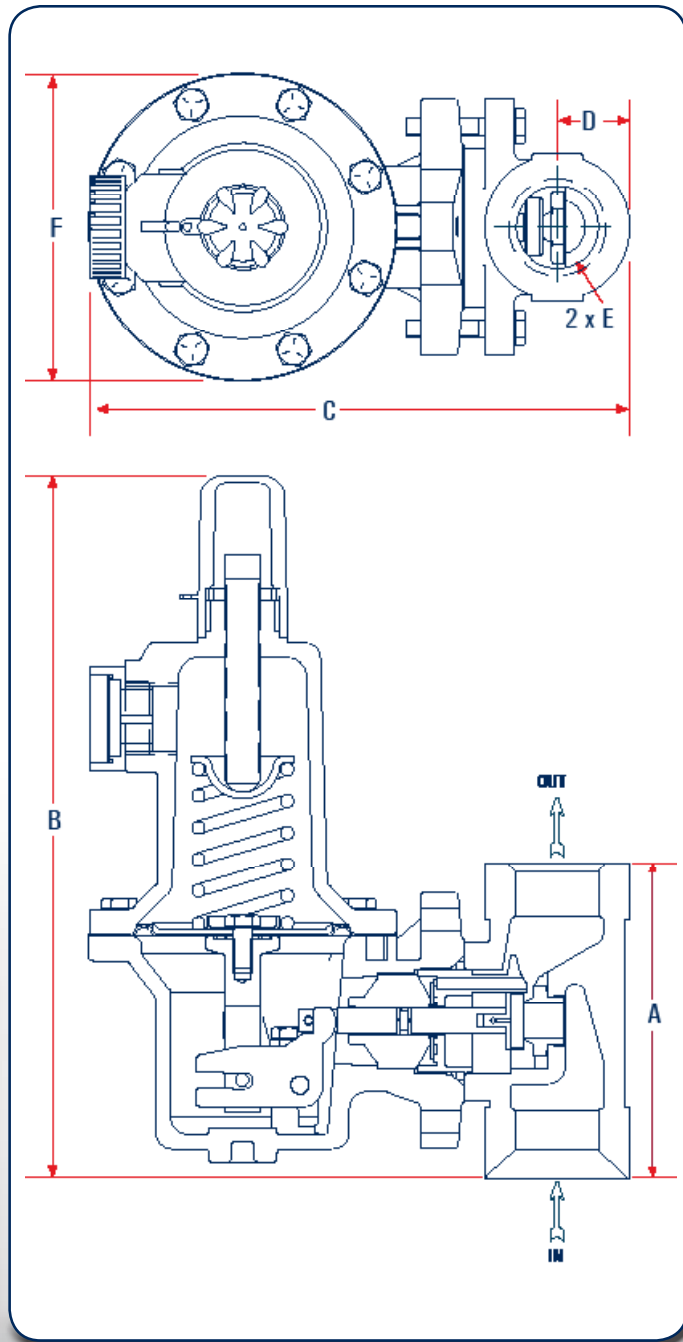
Item	Description	Part Number
28	Seat assembly - Aluminum holder/nitrile disk	822-019-000
	Seat assembly - Aluminum/nylon	822-019-001
	Seat assembly - 316SS Holder/Nitrile (NACE only)	822-020-000
	Seat assembly - 316SS/Nylon (NACE only)	822-020-001
29	Orifice - Aluminum	
	3/32"	688-013-005
	1/8"	688-013-004
	3/16"	688-013-003
	1/4"	688-013-002
	3/8"	688-013-001
	1/2"	688-013-000
	Orifice - 316SS (NACE units)	
	3/32"	688-014-005
	1/8"	688-014-004
	3/16"	688-014-003
	1/4"	688-014-002
30	Body - Ductile Iron	
	3/4 NPT	664-280-000
	1 NPT	664-280-001
	2 NPT	664-282-000
	Body - Steel	
	3/4 NPT	664-281-000
	1 NPT	664-281-001
	2 NPT	664-283-000
	3/4 NPT LCC	664-325-000
	1 NPT LCC	664-325-001
	2 NPT LCC	664-326-000
	3/4 NPT Socket Weld	664-356-000
31	1 NPT Socket Weld	664-358-000
	2 NPT Socket Weld	664-359-000
32	Nameplate (not shown)	632-474-000
33	Diaphragm Spacer (P627H or P627HM only)	654-167-000
34	O-ring, Spacer (P627H or P627HM only)	649-279-000
35	O-ring, Throat Block (2 required)	649-281-000
36	Throat Block (P627M or P627HM only)	626-081-000
37	Backup Ring, Throat Block (2 required)	644-048-000
	Build Screw, 3/4" & 1" Aluminum unit	648-466-001
	Build Screw, All Steel Bodies	648-467-001
	Build Screw 2" Aluminum Unit (2 required)*	648-466-003
	*For 648-466-003 only, order 662-000-023 Lock Washer.	
38	Spring Guide, Lower (P627H & P627HM only)	637-307-000
39	Thread Locker	Consult factory
40	Name Plate Drive Screw (2 required) (not shown)	648-464-000
41	NACE Tag (not shown)	632-503-000

P627 Parts



P627 / R627 Dimensions

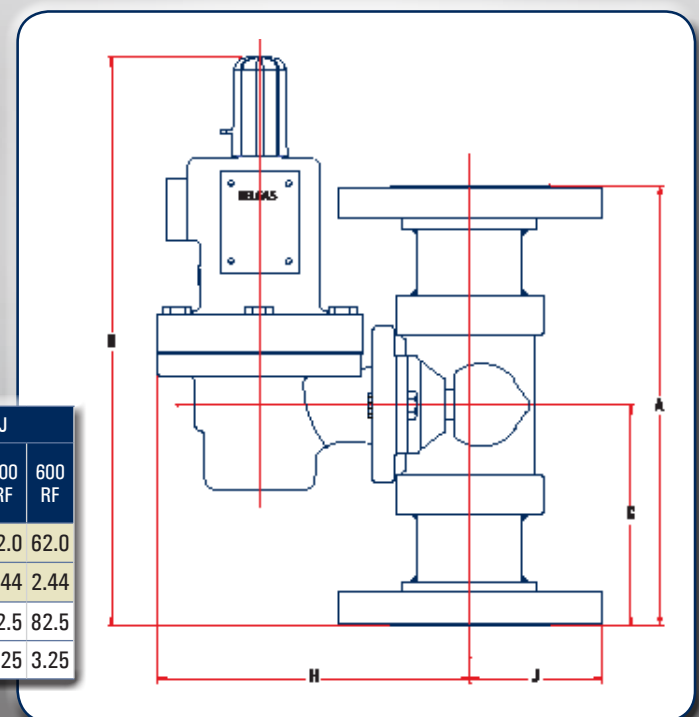
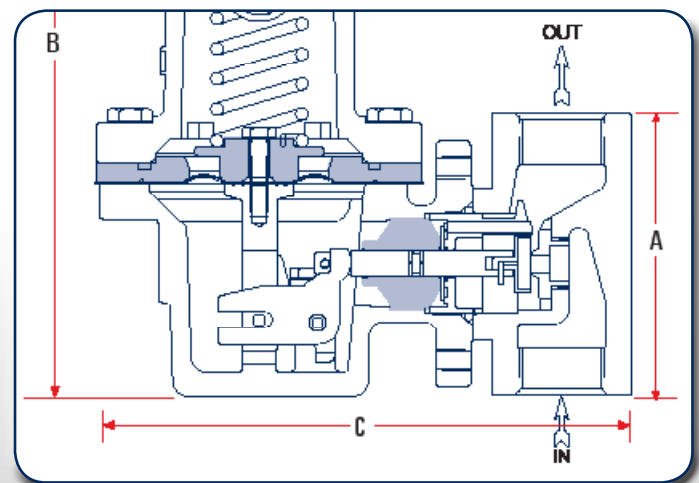
Aluminum/Cast Ductile Iron Units



Type	Body Size		A	B	C	D	E	F*
627 & 627M	3/4"	mm	104	243	190	26	3/4"	108
		inches	4.08	9.54	7.46	1.0		4.25
	1"	mm	104	243	190	26	1"	108
		inches	4.08	9.54	7.46	1.0		4.25
	2"	mm	127	256	218	43	2"	108
		inches	5.0	10.06	8.56	1.69		4.25
627H & 627HM	3/4"	mm	104	250	194	26	3/4"	120
		inches	4.08	9.82	7.62	1.0		4.70
	1"	mm	104	250	194	26	1"	120
		inches	4.08	9.82	7.62	1.0		4.70
	2"	mm	127	265	224	43	2"	120
		inches	5.0	10.44	8.80	1.69		4.70

*F Dimensions for steel P627 and P627M - 120mm/4.7 inches

P627H



P627 / R627 Dimensions

Flange Units

Type	Body Size	A			D			G			H	J		
		150 RF	300 RF	600 RF	150 RF	300 RF	600 RF	150 RF	300 RF	600 RF		150 RF	300 RF	600 RF
P627 & R627 Flanged Units	1"	mm	184	197	210	286	292	298	91.9	98.6	105	172	53.8	62.0
		in.	7.25	7.75	8.25	11.24	11.5	11.75	3.62	3.88	4.12	6.75	2.12	2.44
	2"	mm	254	267	286	321	327	337	127	133	143	181	76.2	82.5
		in.	10	10.5	11.25	12.63	12.88	13.25	5	5.25	5.62	7.12	3	3.25

R627 High Flow Gas Regulator with Internal Relief

The R627 Relieving Regulator has an internal relief valve that provides protection against over pressurization. As output pressure builds up above the start-to-discharge point the relief seat disengages from the diaphragm and the excess pressure is relieved through the bonnet vent port. As a result of the relieving action of the internal relief valve, the output pressure reduces and returns to the initial setpoint. The relief seat then reseats against the diaphragm. The action of the R627 internal relief valve in many cases eliminates the need for an external relief valve. The R627 is available in spring ranges from 5-20 PSIG up to 70-150 PSIG.

The R627 contains a relief indicator that is attached to the R627 vent assembly. The indicator pops off the vent when the relief valve opens and serves as a visual indicator that the relief valve has operated.



Applications

- Form Tap
- Gas Gathering
- City Gates
- District Gates

Materials of Construction

Body, Bonnet, Diaphragm Case	
Options	Steel Body, Bonnet & Diaphragm Case
	Cast Ductile Iron Body / Aluminum Bonnet & Diaphragm Case
	Steel Body / Aluminum Bonnet & Diaphragm Case (NACE only)
	Steel Casing / LCC Body
	Aluminum / LCC Body
Diaphragm	
Option	Nitrile
Seat	
Options	Nitrile
	Nylon
Orifice	
Options	Aluminum
	Stainless Steel (NACE only)

Specifications

Maximum Inlet Body Pressure		
Nylon Seat	2000 PSIG	Steel
	1000 PSIG	Ductile Iron
	1485 PSIG	Flanged Steel
Nitrile Seat	1000 PSIG	All Units
Outlet		
5-150 PSIG		
Body Sizes		
3/4 NPT		
1 NPT		
2 NPT		
Orifice Sizes		
3/32"		
1/8"		
3/16"		
1/4"		
3/8"		
1/2"		
Output		
	Outlet Range	Flow Range*
	5-20 PSIG	300-43,000
	15-40 PSIG	1,000-71,000
	35-80 PSIG	1,200-142,000
	10-95 PSIG	1,000-150,000
	70-150 PSIG	2,500-172,000
* (SCFH of 0.6 S.G. Natural Gas)		
Temperature Range		
-20° to 180° F (-18° to 82° C)		
Weight Approximate		
1"	5.3 lbs	2.39 kg
2"	8.8 lbs	3.96 kg

Maximum Bonnet and Diaphragm Casing Pressure	Spring & Diaphragm Casing Style	R627		R627M	
		PSIG	BAR	PSIG	BAR
Maximum pressure to spring and diaphragm casing to prevent leak to atmosphere (internal parts damage may occur).	Die Cast Aluminum	250	17.2	N/A	N/A
	Steel	250	17.2	250	17.2
Maximum pressure to spring and diaphragm casings to prevent burst of casings during abnormal operation (leak to atmosphere and internal parts may occur).	Die Cast Aluminum	375	25.9	N/A	N/A
	Steel	1200	82.7	1200	82.7
Maximum diaphragm casing overpressure to prevent damage to internal parts.	All	60	4.1	60	4.1

R627 Regulator Rebuild Kits

	Kit Includes	Part Number
R627 Nitrile	Nitrile diaphragms (2), Nitrile valve disk, O'rings, back-up rings, and retaining pin	971-R62-700
R627 Nylon	Nitrile diaphragms (2), Nylon valve disk, O'rings, back-up rings, and retaining pin.	971-R62-701

	Kit Includes	Part Number
R627 Nitrile NACE	Nitrile diaphragms (2), SS Nitrile valve disk, O'rings, back-up rings, and retaining pin	971-R62-7N0
R627 Nylon NACE	Nitrile diaphragms (2), SS Nylon valve disk, O'rings, back-up rings, and retaining pin	971-R62-7N1

R627 Part Matrix

R627							1	
	↑	↑	↑	↑	↑	↑	↑	Port Size
06								3/4"
08								1"
16								2"
								Spring Range
								PSIG BAR
020								5 - 20 0.34 - 1.4
040								15 - 40 1 - 2.8
080								35 - 80 2.4 - 5.5
095								10 - 95 0.7 - 6.6
150								70 - 150 4.8 - 10.3
250								
500								
								Special Adders
0								None
2								Monitor*
A								150 #RF*
B								300 #RF*
C								600 #RF*
D								Socket Weld*
E								900 #RTJ*
W								150 #RF & Monitor*
X								300 #RF & Monitor*
Y								600 #RF & Monitor*
Z								Socket Weld & Monitor*
								Versions
O								Standard
N								NACE*
F								NACE & Fluorocarbon Elastomers*
T								Stainless Trim*
								Orifice
0								3/32"
2								1/8"
3								3/16"
4								1/4"
6								3/8"
8								1/2"
								Seat Material
0								Nitrile
1								Nylon
								Case / Body
0								Aluminum / Iron
1								Steel / Steel
2								Aluminum / Steel*
6								Aluminum / LCC Steel
7								Steel / LCC Steel
8								Steel / Iron

NOTE: Nitrile Seat is required for 5-20 psi, 15-40 and 10-95 psi ranges. Nylon Seat is recommended for psi above 140. Consult factory for questions

*Steel Casing/Steel Body Only

*Available as Steel/Steel or Aluminum/Steel Only

NOTE: Nitrile Seat is required for 5-20 psi, 15-40 and 10-95 psi ranges. Nylon Seat is recommended for psi above 140. Consult factory for questions.

* Supplied only with NACE components, specify 'N' in part number.

R627 Internal Relief Performance¹

Outlet Pressure Spring Range	Outlet Pressure Setting		Maximum Allowable Downstream Pressure		Maximum Inlet Pressure to Keep Maximum Allowable Downstream Pressure from Being Exceeded ²					
					R627					
					Port Diameter, inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2
5 to 20 PSIG ³ (.03 to 1.4 BAR)	10	0.7	60	4.1	1250	740	320	190	95	75
			100	6.9	2000	1500	620	390	180	130
			125	8.6	2000	1900	830	480	220	160
			175	12.1	2000	2000	1100	670	320	220
			200	13.8	2000	2000	1300	770	360	260
			250	17.2	2000	2000	1600	960	450	320
	15	1.0	60	4.1	1000	620	260	170	90	70
			100	6.9	2000	1400	610	370	170	130
			125	8.6	2000	1900	810	480	220	160
			175	12.1	2000	2000	1100	670	320	220
			200	13.8	2000	2000	1300	770	360	260
			250	17.2	2000	2000	1600	960	450	320
	20	1.4	60	4.1	850	490	210	130	80	65
			100	6.9	2000	1300	600	360	170	120
			125	8.6	2000	1800	800	480	220	160
			175	12.1	2000	2000	1100	670	320	220
			200	13.8	2000	2000	1300	770	360	260
			250	17.2	2000	2000	1600	960	450	320
15 to 40 PSIG (1.0 to 2.8 BAR)	15	1.0	60	4.1	1000	380	210	130	80	65
			100	6.9	2000	1300	590	350	170	120
			125	8.6	2000	1800	800	470	220	160
			175	12.1	2000	2000	1100	640	320	220
			200	13.8	2000	2000	1300	780	370	260
			250	17.2	2000	2000	1600	960	450	320
	20	1.4	60	4.1	630	200	150	100	70	65
			100	6.9	2000	1200	550	330	160	120
			125	8.6	2000	1700	760	450	210	160
			175	12.1	2000	2000	1100	630	320	220
			200	13.8	2000	2000	1300	770	360	260
			250	17.2	2000	2000	1600	960	450	320
	30	2.1	100	6.9	2000	950	450	260	140	110
			125	8.6	2000	1500	670	400	190	150
			175	12.1	2000	2000	1000	610	300	220
			200	13.8	2000	2000	1200	760	360	260
			250	17.2	2000	2000	1600	970	450	320
	40	2.8	100	6.9	1500	700	330	200	120	108
			125	8.62	2000	1300	560	340	180	140
			175	12.1	2000	1800	1000	550	290	220
			200	13.8	2000	2000	1200	730	350	250
			250	17.2	2000	2000	1600	970	460	320

Outlet Pressure Spring Range	Outlet Pressure Setting		Maximum Allowable Downstream Pressure		Maximum Inlet Pressure to Keep Maximum Allowable Downstream Pressure from Being Exceeded ²					
					R627					
					Port Diameter, inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2
35 to 80 PSIG (2.4 to 5.5 BAR)	40	2.8	125	8.6	2000	1100	500	300	170	140
			150	10.3	2000	1600	750	440	230	180
			175	12.1	2000	2000	980	580	290	220
			200	13.8	2000	2000	1200	720	340	250
			250	17.2	2000	2000	1600	940	450	320
	50	3.4	125	8.6	1400	820	400	230	150	140
			150	10.3	2000	1400	650	370	210	170
			175	12.1	2000	1900	700	530	270	210
			200	13.8	2000	2000	1100	670	330	240
			250	17.2	2000	2000	1500	920	430	320
	60	4.1	125	8.6	900	450	270	190	140	130
			150	10.3	1700	1100	540	300	190	160
			175	12.1	2000	1700	780	470	250	200
			200	13.8	2000	2000	1000	610	310	230
			250	17.2	2000	2000	1400	880	420	310
	70	4.8	150	10.3	1200	850	430	250	170	160
			175	12.1	2000	1400	670	400	230	190
			200	13.8	2000	2000	920	550	280	230
			250	17.2	2000	2000	1300	830	400	310
	80	5.5	150	10.3	800	500	300	200	160	150
			175	12.1	1500	1200	550	330	210	190
			200	13.8	2000	1700	800	480	270	220
			250	17.2	2000	2000	1200	770	390	300
70 to 150 PSIG (4.8 to 10.3 BAR)	70	4.8	175	12.1	1900	600	400	260	200	175
			200	13.8	2000	1200	630	380	250	210
			250	17.2	2000	2000	1100	680	360	290
	80	5.5	175	12.1	1400	250	240	200	190	175
			200	13.8	2000	960	250	330	240	210
			250	17.2	2000	2000	1000	620	350	280
	100	6.9	200	13.8	1500	250	240	230	210	210
			250	17.2	2000	1600	770	520	320	270
	125	8.6	250	17.2	2000	1000	500	390	290	260
	150	10.3	250	17.2	1200	260	260	260	260	260

1. The internal relief performance values are obtained by removing the disk assembly.
2. For inlet pressure in excess of 1000 PSIG (69.0 BAR) refer to the maximum body and disk pressure ratings in the specifications section.
3. For pressure settings under 10 PSIG (0.69 BAR) inlet pressure should be limited to approximately 100 PSIG (6.90 BAR) so the set point adjustment can be obtained.
4. - Shaded areas indicate maximum inlet pressures allowed during system failure only.

R627 Capacities for 3/4-inch Body Size¹

Outlet Pressure Spring Range	Outlet Pressure Setting		Inlet Pressure		Capacities in SCFH (Nm³/h) of 0.6 Specific Gravity Natural Gas 3/4" Body Size					
					Orifice Size, Inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2
5 to 20 PSIG² (.03 to 1.4 BAR)	5	0.3	10	0.7	170	320	710	1050	1500	1850
			15	1.0	240	330	810	1290	2100	2850
			20	1.4	290	460	1090	1750	2750	3850
			30	2.1	380	610	1470	2490	3600	4800
			60	4.1	640	1170	2460	3690	5270	6120
			75	5.2	770	1410	2880	4150	5760	6900
			100	6.9	990	1690	3540	4790	6200	7600
	10	0.7	15	1.0	210	320	800	1290	2100	2820
			20	1.4	280	450	1070	1740	2700	3800
			30	2.1	380	610	1470	2430	3550	4780
			60	4.1	640	1170	2460	3690	5270	6120
			75	5.2	770	1410	2880	4150	5760	6900
			100	6.9	990	1690	3540	4790	6200	7600
			150	10.3	1420	2430	4000	5680	6250	7630
			200	13.8	1850	3070	4200	6200	6380	7680
			300	20.7	2700	3970	4270	6250	6500	
			500	34.5	4010	4240	5640	6520		
			750	51.7	4400	5120	6400			
			1000	69.0	4450	6220				
			1250	86.2	4540					
	1500	103	4880							
	1750	121	5230							
	2000	138	5900							
	20	1.4	30	2.1	350	590	1390	2480	4350	4970
			50	3.5	550	980	2240	4000	7450	8000
			60	4.1	640	1170	2610	4680	7800	8900
			100	6.9	990	1800	3980	6700	9750	10400
			150	10.3	1420	2580	5600	8790	10000	10800
200			13.8	1850	3370	7050	9000	10200	10800	
300			20.7	2700	4910	7300	9500	10500		
500			34.5	4400	5200	7400	9760			
750			51.7	6600	5360	8870				
1000			69.0	7300	6500					
1250			86.2	7500						
1500			130	7800						
1750			121	8400						
2000			138	8600						
15 to 40 PSIG (1.0 to 2.8 BAR)	40	2.8	60	4.1	610	1090	2270	4230	8100	9100
			75	5.2	760	1370	3080	5330	10300	11600
			100	6.9	990	1790	4070	6840	11900	13400
			150	10.3	1420	2580	5850	9320	13500	13800
			200	13.8	1850	3370	7630	11000	16300	17100
			300	20.7	2700	4910	11200	14700	17800	
			500	34.5	4400	8090	14500	14800		
			750	51.7	6600	10800	14800	14900		
			1000	69.0	8700	13100	16300			
			1250	86.2	11000	13800				
			1500	130	12000	14000				
			1750	121	13000					
			2000	138	14000					
			35 to 80 PSIG (2.4 to 5.5 BAR)	60	4.1	75	5.2	700	1230	2760
100	6.9	970				1740	3910	6690	11900	14400
150	10.3	1420				2580	5850	9740	15700	18700
200	13.8	1850				3370	7630	12400	18400	21200
300	20.7	2700				4910	11200	17700	20200	
500	34.5	4400				8090	18300	20000		
750	51.7	6600				12000	18900	21400		
1000	69.0	8700				16000	19000			
1250	86.2	11000				18700				
1500	130	13000				19000				
1750	121	15000				20000				
2000	138	17000								

Table Continued

- Capacity is based on 20% droop unless otherwise noted below.
- For pressure setting under 10 PSIG (06.9 BAR) inlet pressure should be limited to approximately 100 PSIG (6.90 BAR) so that setpoint adjustment can be obtained.
- Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.

Outlet Pressure Spring Range	Outlet Pressure Setting		Inlet Pressure		Capacities in SCFH (Nm³/h) of 0.6 Specific Gravity Natural Gas 3/4" Body Size					
					Orifice Size, Inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2
35 to 80 PSIG (2.4 to 5.5 BAR)	80	5.5	100	6.90	900	1630	3570	6490	12000	17200
			150	10.3	1410	2580	5780	10500	18900	25000
			200	13.8	1850	3370	7630	13700	23000	29000
			300	20.7	2700	4910	11200	20100	26000	
			500	34.5	4400	8090	18300	29000		
			750	51.7	6600	12000	23100	30900		
			1000	69.0	8700	16000	27400			
			1250	86.2	11000	19000				
			1500	130	13000	22000				
			1750	121	15000	25000				
			2000	138	17000					
70 to 150 PSIG (4.8 to 10.3 BAR)	100	6.9	150	10.3	1170	2510	5540	8310	15500	20300
			200	13.8	1850	3370	7630	12000	20100	25700
			300	20.7	2700	4910	11200	18200		
			500	34.5	4400	8090	18300			
			750	51.7	6600	12000				
			1000	69.0	8700	16000				
			1250	86.2	11000					
			1500	130	13000					
			1750	121	15000					
	2000	138	17000							
	125	8.6	150	10.3	1250	2330	5090	9130	15700	20800
			200	13.8	1830	3320	7360	13160	22400	28600
			300	20.7	2700	4910	11200	19700		
			500	34.5	4400	8090	18300			
			750	51.7	6600	12000				
			1000	69.0	8700	16000				
			1250	86.2	11000					
			1500	130	13000					
			1750	121	15000					
2000	138	17000								
150	10.3	200	13.8	1760	3200	7020	12500	21400	30600	
		300	20.7	2700	4910	11200	17200			
		500	34.5	4400	8090	18300				
		750	51.7	6600	12000					
		1000	69.0	8700	16000					
		1250	86.2	11000						
		1500	130	13000						
		1750	121	15000						
2000	138	17000								

- Capacity is based on 20% droop unless otherwise noted below.
- For pressure setting under 10 PSIG (06.9 BAR) inlet pressure should be limited to approximately 100 PSIG (6.90 BAR) so that setpoint adjustment can be obtained.
- Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.

R627 Capacities for 1 and 2 Inch Body Sizes¹

Outlet Pressure Spring Range	Outlet Pressure Setting		Inlet Pressure	Capacities in SCFH (Nm ³ /h) of 0.6 Specific Gravity Natural Gas 1 & 2" Body Size						
				Orifice Size, Inches						
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2
5 to 20 PSIG ² (.03 to 1.4 BAR)	5	0.3	10	0.7	170	330	710	1080	2000	2150
			15	1.0	240	390	890	1500	2350	3000
			20	1.4	290	500	1160	1900	2750	3900
			30	2.0	380	690	1500	2500	3600	4900
			60	4.1	640	1170	2460	3690	5650	6900
			75	5.2	770	1410	2880	4150	6450	7490
			100	6.9	990	1800	3540	5790	7520	8150
			15	1.0	210	390	840	1480	2300	2930
			20	1.4	280	500	1100	1880	2700	3830
			30	2.0	380	690	1500	2460	3550	4840
	10	0.7	60	4.1	640	1170	2460	3690	5650	6900
			75	5.2	770	1410	2880	4150	6450	7490
			100	6.9	990	1800	3540	5790	7520	8150
			150	10.3	1420	2580	4660	5680	9980	10800
			200	13.8	1850	3370	5620	6360	11000	12900
			300	20.7	2700	4880	6890	7780	13600	
			500	34.5	4400	6720	8570	11600		
			750	51.7	5400	8850	9000			
			1000	69.0	5800	9500				
			1250	86.2	6300					
			1500	103	6600					
			1750	121	6800					
			2000	138	7600					
	20	1.4	30	2.07	350	600	1390	2580	4350	6290
			50	3.45	550	1000	2250	4090	7600	8000
			60	4.14	640	1170	2630	4750	7800	10600
			100	6.90	990	1800	4070	7310	10800	13400
			150	10.3	1420	2580	5720	10300	13500	14000
			200	13.8	1850	3370	7050	10500	14000	14000
			300	20.7	2700	4910	9250	10800	14900	
			500	34.5	4400	7830	11800	13000		
			750	51.7	6600	9000	12000			
			1000	69.0	8700	9660				
			1250	86.2	10000					
			1500	103	10400					
			1750	121	12000					
			2000	138	14000					
15 to 40 PSIG (1.0 to 2.8 BAR)	40	2.8	60	4.1	610	1090	2430	4510	9200	9400
			75	5.2	760	1370	3080	5640	10800	16300
			100	6.9	990	1790	4070	7310	13500	17600
			150	10.3	1420	2580	5850	10500	18000	22200
			200	13.8	1850	3370	7630	11000	21400	24600
			300	20.7	2700	4910	11200	14900	24400	
			500	34.5	4400	8090	16300	21800		
			750	51.7	6600	12000	20200	23600		
			1000	69.0	8700	16000	23200			
			1250	86.2	11000	19000				
			1500	103	13000	21000				
			1750	121	15000					
			2000	138	17000					
			75	5.2	700	1230	2760	4860	8600	12800
35 to 80 PSIG (2.4 to 5.5 BAR)	60	4.1	100	6.9	970	1740	3910	7000	12500	16700
			150	10.3	1420	2580	5850	10500	16800	2300
			200	13.8	1850	3370	7630	13700	20900	27700
			300	20.7	2700	4910	11200	20100	28100	
			500	34.5	4400	8090	18300	28500		
			750	51.7	6600	12000	22800	29500		
			1000	69.0	8700	16000	26800			
			1250	86.2	11000	19000				
			1500	103	13000	22000				
			1750	121	15000	25000				
			2000	138	17000					

Table Continued

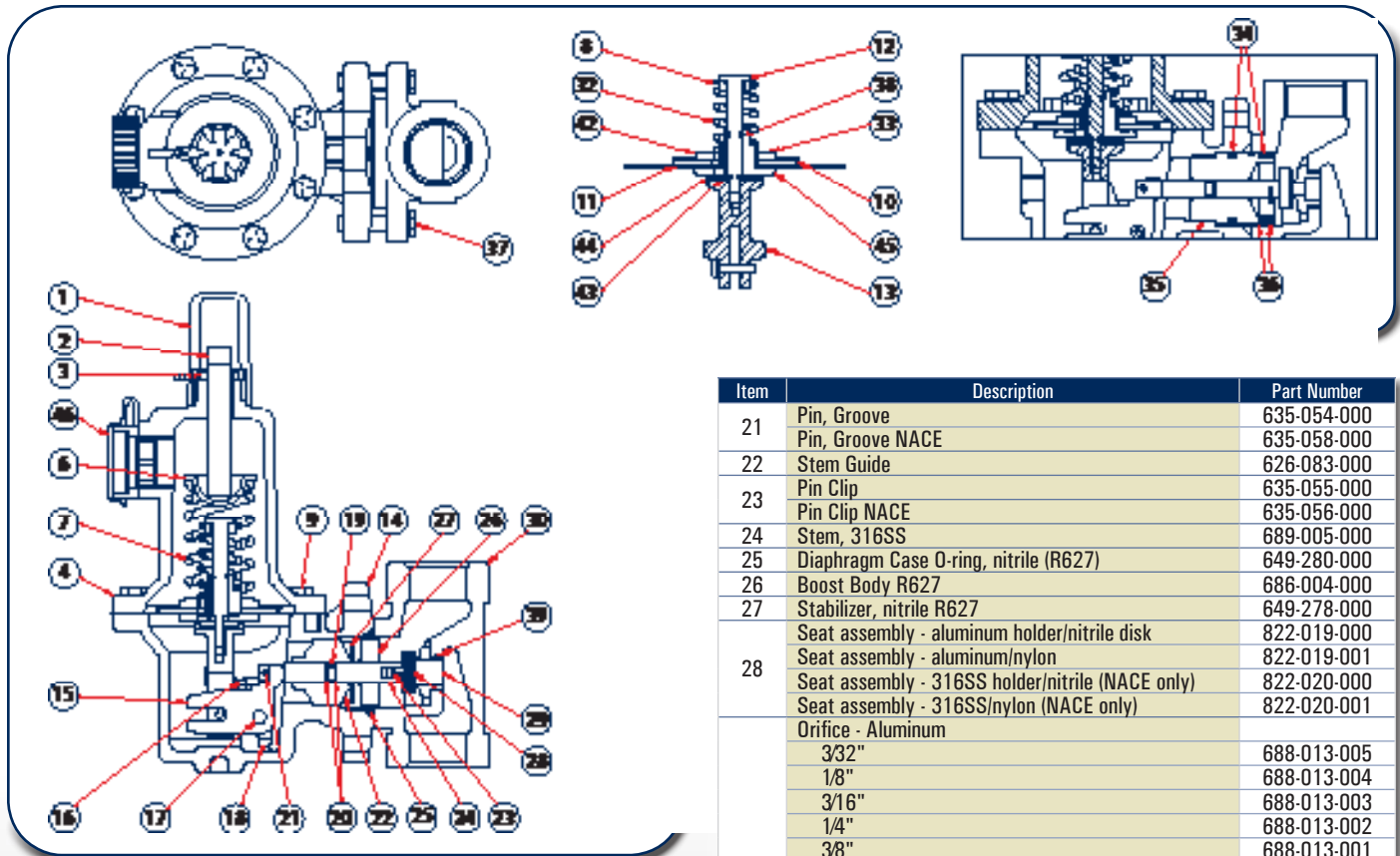
- Capacity is based on 20% droop unless otherwise noted below.
- For pressure setting under 10 PSIG (06.9 BAR) inlet pressure should be limited to approximately 100 PSIF (6.90 BAR) so that setpoint adjustment can be obtained.
- Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.

Outlet Pressure Spring Range	Outlet Pressure Setting		Inlet Pressure	Capacities in SCFH (Nm ³ /h) of 0.6 Specific Gravity Natural Gas 1 & 2" Body Size						
				Orifice Size, Inches						
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2
35 to 80 PSIG (2.4 to 5.5 BAR)	80	5.5	100	6.9	900	1630	3570	6650	12000	17400
			150	10.3	1410	2580	5750	10500	20100	26000
			200	13.8	1850	3370	7630	13700	25100	31800
			300	20.7	2700	4910	11200	20100	32600	
			500	34.5	4400	8090	18300	30300		
			750	51.7	6600	12000	27200	37400		
			1000	69.0	8700	16000	33300			
			1250	86.2	11000	19000				
			1500	103	13000	22000				
			1750	121	15000	25000				
			2000	138	17000					
	100	6.9	150	10.3	1170	2510	5540	8310	15500	20300
			200	13.8	1850	3370	7630	12000	20100	26700
			300	20.7	2700	4910	11200	18200		
			500	34.5	4400	8090	18300			
			750	51.7	6600	12000				
			1000	69.0	8700	16000				
			1250	86.2	11000					
			1500	103	13000					
			1750	121	15000					
			2000	138	17000					
70 to 150 PSIG (4.8 to 10.3 BAR)	125	8.6	150	10.3	1250	2330	5090	9470	15700	20800
			200	13.8	1830	3320	7360	13400	23600	31300
			300	20.7	2700	4910	11200	19700		
			500	34.5	4400	8090	18300			
			750	51.7	6600	12000				
			1000	69.0	8700	16000				
			1250	86.2	11000					
			1500	103	13000					
			1750	121	15000					
			2000	138	17000					
	150	10.3	200	13.8	1760	3200	7020	12900	21400	33300
			300	20.7	2700	4910	11200	17200		
			500	34.5	4400	8090	18300			
			750	51.7	6600	12000				
			1000	69.0	8700	16000				
			1250	86.2	11000					
			1500	103	13000					
			1750	121	15000					
			2000	138	17000					

1. Capacity is based on 20% droop unless otherwise noted below.

Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.

R627 Parts



Item	Description	Part Number
1	Cover Adj. Screw, plastic	610-053-000
2	Adjustment Screw	648-520-000
3	Locknut	634-154-000
4	Bonnet, R627 - aluminum	604-210-000
5	Bonnet, R627, R627M - Steel	604-211-000
6	Vent Screw Assembly	836-005-000
7	Spring Guide, Upper	626-079-000
8	Spring Guide, Lower (P627 or P627M only)	626-101-000
9	Build Screw, Spring Case (8 required)	
10	R627 - Aluminum	648-466-000
11	R627 or P627M - Steel	648-467-003
12	Diaphragm Piston (R627 or R627M only)	637-322-000
13	Diaphragm R627 & R627M	
14	Aluminum/Iron Case (Nitrile)	618-079-000
15	Steel Case (Nitrile)	618-080-000
16	Diaphragm Retainer P627 & P627M	648-521-000
17	Post, Pusher R627 & P627M Assy	827-011-000
18	Diaphragm Case R627 - aluminum	629-202-000
19	Diaphragm Case R627 - steel	629-203-000
20	Diaphragm Case R627M - steel	629-204-000
21	Diaphragm Case, aluminum/steel	629-215-000
22	Lever	703-004-000
23	Lever, NACE	703-005-000
24	Lever Screw (2 required)	648-466-002
25	Lever Screw, NACE (2 required)	648-474-000
26	Pin, Lever	635-053-000
27	Pin, Lever, NACE	635-057-000
28	Lever Retainer	643-192-000
29	Lever Retainer, NACE	643-194-000
30	Stem O-ring, nitrile	649-000-003
31	Stem Backup Ring, TFE (2 required)	644-047-000

Item	Description	Part Number
21	Pin, Groove	635-054-000
22	Pin, Groove NACE	635-058-000
23	Stem Guide	626-083-000
24	Pin Clip	635-055-000
25	Pin Clip NACE	635-056-000
26	Stem, 316SS	689-005-000
27	Diaphragm Case O-ring, nitrile (R627)	649-280-000
28	Boost Body R627	686-004-000
29	Stabilizer, nitrile R627	649-278-000
30	Seat assembly - aluminum holder/nitrile disk	822-019-000
31	Seat assembly - aluminum/nylon	822-019-001
32	Seat assembly - 316SS holder/nitrile (NACE only)	822-020-000
33	Seat assembly - 316SS/nylon (NACE only)	822-020-001
34	Orifice - Aluminum	
35	3/32"	688-013-005
36	1/8"	688-013-004
37	3/16"	688-013-003
38	1/4"	688-013-002
39	3/8"	688-013-001
40	1/2"	688-013-000
41	Orifice - 316SS (NACE units)	
42	3/32"	688-014-005
43	1/8"	688-014-004
44	3/16"	688-014-003
45	1/4"	688-014-002
46	3/8"	688-014-001
47	1/2"	688-014-000
48	Body - Ductile Iron	
49	3/4 NPT	664-280-000
50	1 NPT	664-280-001
51	2 NPT	664-282-000
52	Body - Steel	
53	3/4 NPT	664-281-000
54	1 NPT	664-281-001
55	2 NPT	664-283-000
56	3/4 NPT LCC	664-325-000
57	1 NPT LCC	664-325-001
58	2 NPT LCC	664-326-000
59	3/4 NPT Socket Weld	664-356-000
60	1 NPT Socket Weld	664-358-000
61	2 NPT Socket Weld	664-359-000
62	Nameplate (not shown)	632-474-000
63	Relief Spring	655-709-000
64	Lower Spring Seat	626-102-000
65	O-ring, Throat Block (2 required)	649-281-000
66	Throat Block (R627M)	626-081-000
67	Backup Ring, Throat Block (2 required)	644-048-000
68	Build Screw, 3/4" & 1" aluminum unit	648-466-001
69	Build Screw, all steel bodies	648-467-001
70	Build Screw 2" aluminum unit (2 required)*	648-466-003
71	O-ring	649-000-001
72	Thread Locker	consult factory
73	Name Plate Drive Screw (2 required) (not shown)	648-464-000
74	NACE Tag (not shown)	632-503-000
75	Diaphragm Connecting Unit	634-182-000
76	Relief Seal Retainer	643-198-000
77	Relief Seal O-ring	649-308-000
78	Diaphragm Connector	650-150-000
79	Relief Cap	614-064-000