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 paps 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"	
	Outlet Range	Flow Range*
Output	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 NPT
08	1 NPT
16	2 NPT

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	5.7 - 6.6
150	70 - 150	4.8 - 10.3

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

Special Construction	
0	None
2	Monitor*
A	150 #RF*
B	300 #RF*
C	600 #RF*
D	Socket Weld*

*Steel Casing/Steel Body Only

Versions	
0	Standard
N	NACE*

*Available as Steel/Steel or Aluminum/Steel Only

Orifice	
0	3/32"
2	1/8"
3	3/16"
4	1/4"
6	3/8"
8	1/2"

Seat Material	
0	Nitrile (Buna-N)
1	Nylon

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.

Casing Material	
0	Aluminum Casing / Iron Body
1	Steel Casing / Steel Body
2	Aluminum Casing / Steel Body*
6	Aluminum Casing / LCC Steel Body
7	Steel Casing / LCC Body
8	Steel Casing / Iron Body

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

Output Pressure	Maximum Inlet Pressures: (10-95 psi supply pressure limits)				
	1/8"	3/16"	1/4"	3/8"	1/2"
10 psi	500 psi	500 psi	500 psi	300 psi	100 psi
25 psi	1,000 psi	1,000 psi	500 psi	300 psi	100 psi
75 psi	1,000 psi	1,000 psi	500 psi	300 psi	100 psi
95 psi	1,000 psi	1,000 psi	500 psi	300 psi	100 psi

For 10-95 flow information, refer to 35-80 PSIG flow capacity tables.

R627 Internal Relief Performance[1]

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 Size[1]

Outlet Pressure Spring Range	Outlet Pressure Setting		Inlet Pressure		Capacities in SCFH (Nm^3/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 PSIG[2] (.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	4700	8170	12600
			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					
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					

Table Continued

1. Capacity is based on 20% droop unless otherwise noted below.
2. 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.
3. ☐ - Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.

1. Capacity is based on 20% droop unless otherwise noted below.
2. 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.
3. ☐ - Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.

BelGAS

R627 Capacities for 1 and 2 Inch Body Sizes[1]

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
	10	0.7	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
			60	4.1	640	1170	2460	3690	5650	6900
			75	5.2	770	1410	2880	4150	6450	7490
			100	6.9	990	1800	3540	4790	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					
35 to 80 PSIG (2.4 to 5.5 BAR)	60	4.1	75	5.2	700	1230	2760	4860	8600	12800
			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

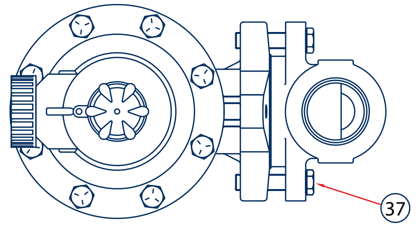
1. Capacity is based on 20% droop unless otherwise noted below.
2. For pressure setting under 10 PSIG (06.9 BAR) inlet pressure should be limited to approximately 100 PSIF (6.90 BAR) so that setpoint adjustment can be obtained.
3. ▭ - Blank areas indicate where maximum operating inlet pressure for a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

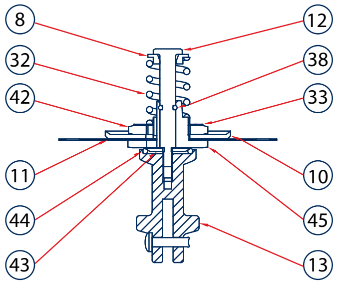
Outlet Pressure Spring Range	Outlet Pressure Setting		Inlet Pressure		Capacities in SCFH (Nm^3/h) of 0.6 Specific Gravity Natural Gas **1 & 2" Body Size**					
					Orifice Size, Inches					
	PSIG	BAR	PSIG	BAR	3/32	1/8	3/16	1/4	3/8	1/2
35 to 80 PSIG (2.4 to 5.5 BAR)	80	5.5	100	6.9	900	1630	3570	6650	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					
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	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					
	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					

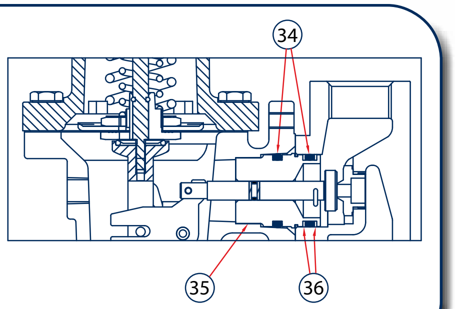
1. Capacity is based on 20% droop unless otherwise noted below.

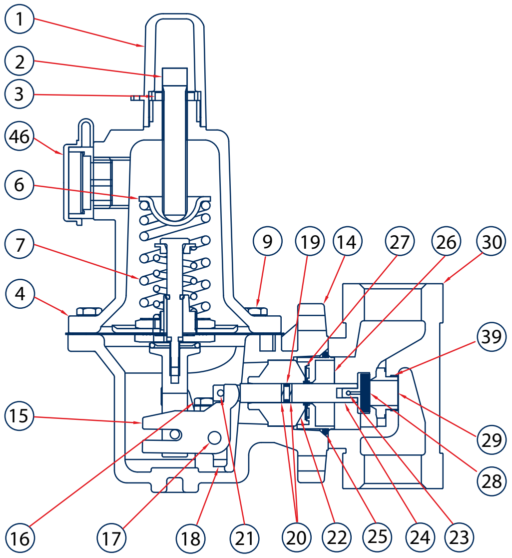
▭ - Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.

R627 Parts









Item	Description	Part Number
1	Cover Adj. Screw, plastic	610-053-000
2	Adjustment Screw	648-465-000
3	Locknut	634-154-000
4	Bonnet, R627 - aluminum	604-210-000
	Bonnet, R627, R627M - 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
8	Spring Guide, Lower (P627 or P627M only)	626-101-000
9	Build Screw, Spring Case (8 required)	
	R627 - Aluminum	648-466-000
	R627 or P627M - Steel	648-467-003
10	Diaphragm Piston (R627 or R627M only)	637-322-000
11	Diaphragm R627 & R627M	
	Aluminum/Iron Case (Nitrile)	618-079-000
	Steel Case (Nitrile)	618-080-000
12	Diaphragm Retainer P627 & P627M	648-521-000
13	Post, Pusher R627 & P627M Assy	827-011-000
14	Diaphragm Case R627 - aluminum	629-202-000
	Diaphragm Case R627 - steel	629-203-000
	Diaphragm Case R627M - steel	629-204-000
	Diaphragm Case, aluminum/steel	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

Item	Description	Part Number
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 (R627)	649-280-000
26	Boost Body R627	686-004-000
27	Stabilizer, nitrile R627	649-278-000
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
	3⁄8"	688-014-001
	1⁄2"	688-014-000
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
	1 NPT Socket Weld	664-358-000
	2 NPT Socket Weld	664-359-000
31	Nameplate (not shown)	632-474-000
32	Relief Spring	655-709-000
33	Lower Spring Seat	626-102-000
34	O-ring, Throat Block (2 required)	649-281-000
35	Throat Block (R627M)	626-081-000
36	Backup Ring, Throat Block (2 required)	644-048-000
37	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
38	O-ring	649-000-001
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
42	Diaphragm Connecting Unit	634-182-000
43	Relief Seal Retainer	643-198-000
44	Relief Seal O-ring	649-308-000
45	Diaphragm Connector	650-150-000