

August 2020

Type FL Pressure Reducing Regulators

Features

- **No Atmospheric Bleed**—Eliminates nuisance and wasteful bleed gas to atmosphere by utilizing a self-contained control system, which bleeds 100% of the gas to the downstream system.
- **Quiet Operation**—Multiple noise attenuation options available which reduce noise by up to 25 dBA at the source, eliminating the need for expensive path treatments such as insulation, buried valves and enclosures which only mask noise.
- **High Capacity**—The highly efficient axial flow design produces exceptionally high capacities.
- **Long Life in Severe Service Applications**—The metal plug design deflects particles and debris away from the soft-seat, which gives excellent particle erosion resistance.
- **Precise Pressure Control**—Provides accurate downstream pressure control regardless of inlet pressure variations or demand changes.
- **Easy In-Line Maintenance**—Outlet flange spacer allows trim parts such as the disk holder to be inspected, cleaned and replaced without removing the body from the pipeline.
- **Bubble-Tight Shutoff**—A knife-edged metal plug and soft seat provide bubble tight shutoff for use in applications where positive shutoff is required such as dead-end systems.
- **Full Pressure Rating**—The equal inlet and outlet pressure rating of 1480 psig / 100 bar, which allows easier selection and requires no special startup or shutdown procedures.
- **Versatility**—Ideal for a wide variety of applications such as natural gas transmission and distribution stations and power plant feeds.
- **Travel Indicator**—Simplifies in-service inspection and system troubleshooting.
- **High Turn Down Capability**—The oversized diaphragm and unique piloting system allow for high turn down, providing superior pressure control in systems with large variations in downstream flow demand.

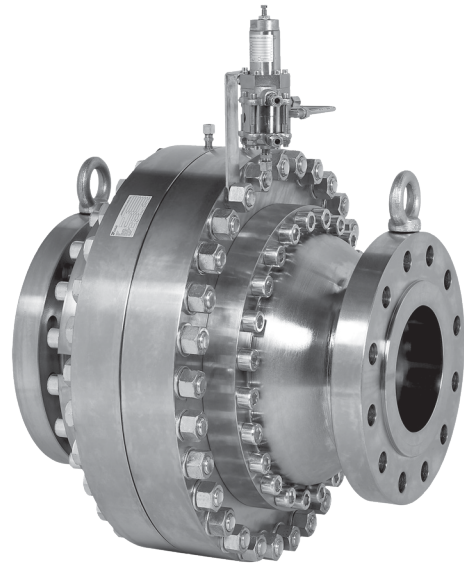


Figure 1. Type FL Regulator with Type PRX Pilot

- **Disk Design**—The FL series offers disks for the main body made from Nitrile (NBR), Fluorocarbon (FKM), and Polyurethane (PU). Polyurethane (PU) provides better abrasion resistance properties and a high durometer rating to extend the working life of the disk in difficult applications such as high pressure drop and low flow.

Introduction

The Type FL is an accurate, pilot-operated regulator designed for high-pressure transmission/city gate, large capacity distribution systems and power plant feeds. Type FL provides smooth and quiet operation, tight shutoff and long service life. The regulator is comprised of a main valve actuator, a Type PRX pressure reducing pilot and a Type SA/2 pilot supply pressure regulator.

Type FL

Specifications

The Specifications section gives some general specifications for the Type FL regulators. The nameplates give detailed information for a particular regulator as it comes from the factory.

Available Configuration

Type FL: Pilot-operated pressure reducing regulator from 14.5 to 1160 psig / 1.00 to 80.0 bar outlet pressures

Body Sizes

Type FL: NPS 1, 2, 3, 4, 6, 8 and 10 / DN 25, 50, 80, 100, 150, 200 and 250

Type FL with Type SRS Silencer (Inlet x Outlet):
NPS 1 x 4, 2 x 6, 3 x 10, 4 x 10, 6 x 12 and 8 x 16 /
DN 25 x 100, 50 x 150, 80 x 250, 100 x 250,
150 x 300 and 200 x 400

Main Valve End Connection Style and Pressure Ratings⁽¹⁾

CL300 RF: 740 psig / 51.0 bar⁽³⁾

CL600 RF: 1480 psig / 102 bar⁽³⁾

Maximum Inlet and Outlet (Casing) Pressure⁽¹⁾

1480 psig / 102 bar⁽³⁾

Minimum Operating Differential Pressure

Start Open:

NPS 1 to 4 / DN 25 to 100: 7.3 psid / 0.50 bar d
NPS 6 and 8 / DN 150 and 200: 3 psid / 0.21 bar d
NPS 10 / DN 250: 2.9 psid / 0.2 bar d

Full Open

NPS 1 to 4 / DN 25 to 100: 14.5 psid / 1.00 bar d
NPS 6 and 8 / DN 150 and 200: 7.3 psid /
0.50 bar d
NPS 10 / DN 250: 8.7 psid / 0.6 bar d

Outlet (Control) Pressure Ranges

See Table 1

Flow and Coefficients

See Table 2

Pilot and Filter-Regulator Flow Coefficients

Type PRX Pilot: C_g : 10.5; C_v : 0.36; C_f : 29

Type SA/2 Filter-Regulator: C_g : 19

Pressure Registration

External

Process Temperature Capabilities⁽¹⁾⁽²⁾

Nitrile (NBR), Fluorocarbon (FKM) or Polyurethane (PU) Disk

ANSI/FCI 70-3 Class VIII: -4 to 140°F / -20 to 60°C

Nitrile (NBR) or Polyurethane (PU) Disk

ANSI/FCI 70-3 Class VI: -20 to 140°F / -29 to 60°C

Approximate Weights (Including Pilot)

See Figure 7

Construction Materials

Type FL Main Valve

Main Body and Flanges: Steel

Sleeve and Disk Holder: Steel

Diaphragm Plates: Steel

Diaphragm: Nitrile (NBR) with PVC coating

Disk O-rings: Nitrile (NBR) or Fluorocarbon (FKM)

Disk: Nitrile (NBR), Fluorocarbon (FKM) or Polyurethane (PU)

Type PRX Pilot

Body: Steel

Trim: Stainless steel

Diaphragm: Nitrile (NBR) or Fluorocarbon (FKM)

Disk O-rings: Nitrile (NBR) or Fluorocarbon (FKM)

Disk: Polyurethane (PU) or Fluorocarbon (FKM)

Type SA/2 Supply Pressure Regulator

Body: Steel

Diaphragm: Nitrile (NBR) with PVC Coating

O-rings: Nitrile (NBR) or Fluorocarbon (FKM)

Disk: Polyurethane (PU) or Fluorocarbon (FKM)

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1. The pressure/temperature limits in this Bulletin and any applicable standard or code limitation should not be exceeded.

2. Types PRX and SA/2 Fluorocarbon (FKM) elastomer are limited to 0°F / -18°C.

3. At average ambient temperature.

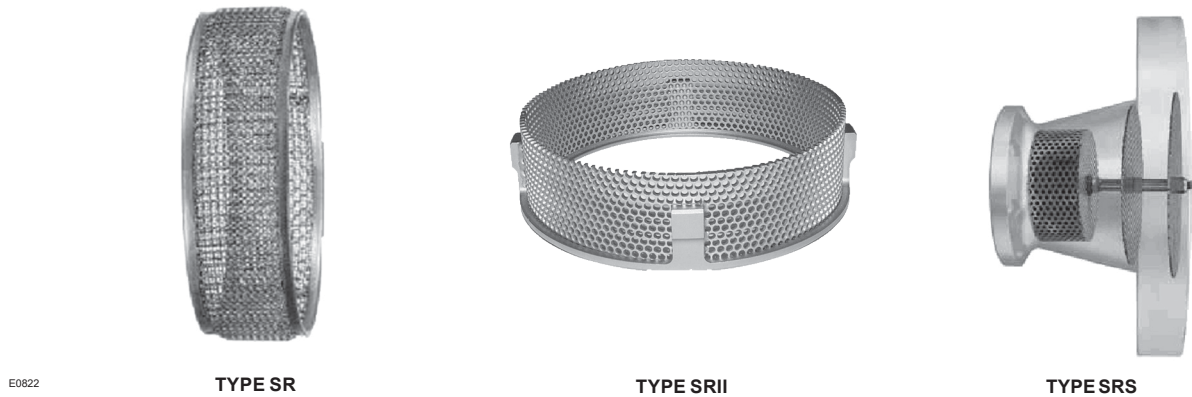


Figure 2. Noise Abatement Construction

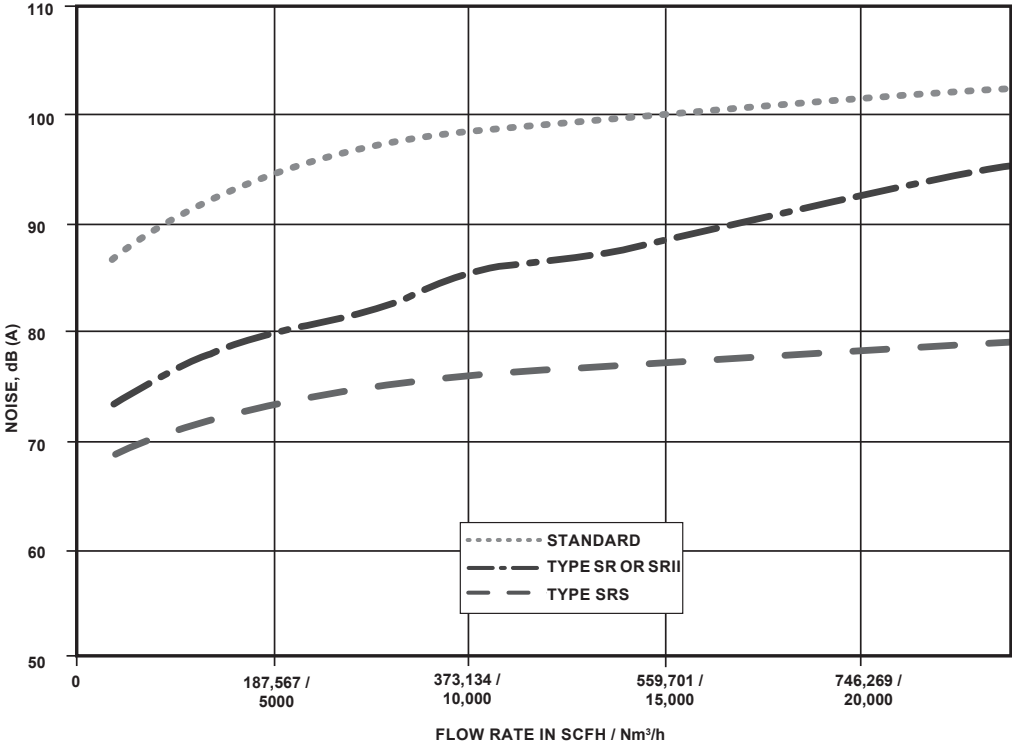


Figure 3. Typical Sound Emission Comparison among the Different Configurations

North America Only

Type FL

The regulator's superior performance is due to the amplifying effect of the pilot and two-path control system. Changes in outlet pressure act quickly on the actuator diaphragm to provide fast response to system change. Then the pilot amplifies any small system changes to position the main valve for precise pressure control.

Type PRX Pilot Descriptions

The Type FL pressure reducing regulators include a PRX Series pilot mounted on the main valve.

Type PRX/120: Outlet pressure range of 14.5 to 435 psig / 1.00 to 30.0 bar. Type PRX/120 can be used as the pilot on single stage pressure-reducing regulators, as the monitor or working pilot in wide-open monitor systems or as the working pilots in working monitor systems.

Type PRX/120-AP: Outlet pressure range of 435 to 1160 psig / 30.0 to 80.0 bar. The Type PRX/120-AP can be used as the pilot on single stage pressure-reducing regulators, as the monitor or working pilot in wide-open monitor systems or as the working pilots in working monitor systems.

Type PRX/125: This pilot is identical to the Type PRX/120 except that the restriction screw is removed. Type PRX/125 can only be used as the monitor override pilot on working monitor applications.

Type PRX/125-AP: Identical to the Type PRX/120-AP except that the restriction screw is removed. Type PRX/125-AP can only be used as the monitor override pilot on working monitor applications.

Type PRX/131: Outlet pressure range of 14.5 to 435 psig / 1 to 30 bar. The Type PRX/131 is used as a booster or quick dump pilot on a single stage pressure reducing regulator or with the monitor pilot on the monitor regulator in Wide-Open Monitor systems. It is installed as standard on the regulator for NPS 10 / DN 250 and can be used on any other size to increase its closing speed.

Type PRX/131-AP: Outlet pressure range of 435 to 1160 psig / 30 to 80 bar. This pilot is used as a booster or quick dump pilot on a single stage pressure reducing regulator or with a monitor pilot on the monitor regulator in Wide-Open Monitor systems.

Type SA/2 Pilot Supply Filter Regulator

The PRX Series pilots are usually used together with the Type SA/2 pilot supply filter regulator. The Type SA/2 acts as a pressure stabilizer that provides a constant supply pressure to the PRX Series pilots: that is approximately 45 psi / 3.1 bar over set pressure.

Type SA/2 has an integral 5 micron filter. This integral filter acts only as an emergency filter; gas must be cleaned upstream of the regulator.

Noise Abatement

At elevated pressure drops and flow rates, regulators with standard trims can produce unacceptable noise levels. Several options are available to reduce the noise generated.

Type SR: Type SR (Figure 2) multi-path noise abatement device is incorporated into the regulator on the seat area. It consists of plated Stainless steel wires containing no sound deadening materials. Depending on flows and pressure drop, the silencer can reduce noise levels as much as 20 dB (A) with an approximate 3% C_g reduction. Type SR is available only in NPS 1 through 6 / DN 25 through 150 and is not recommended for high velocity applications.

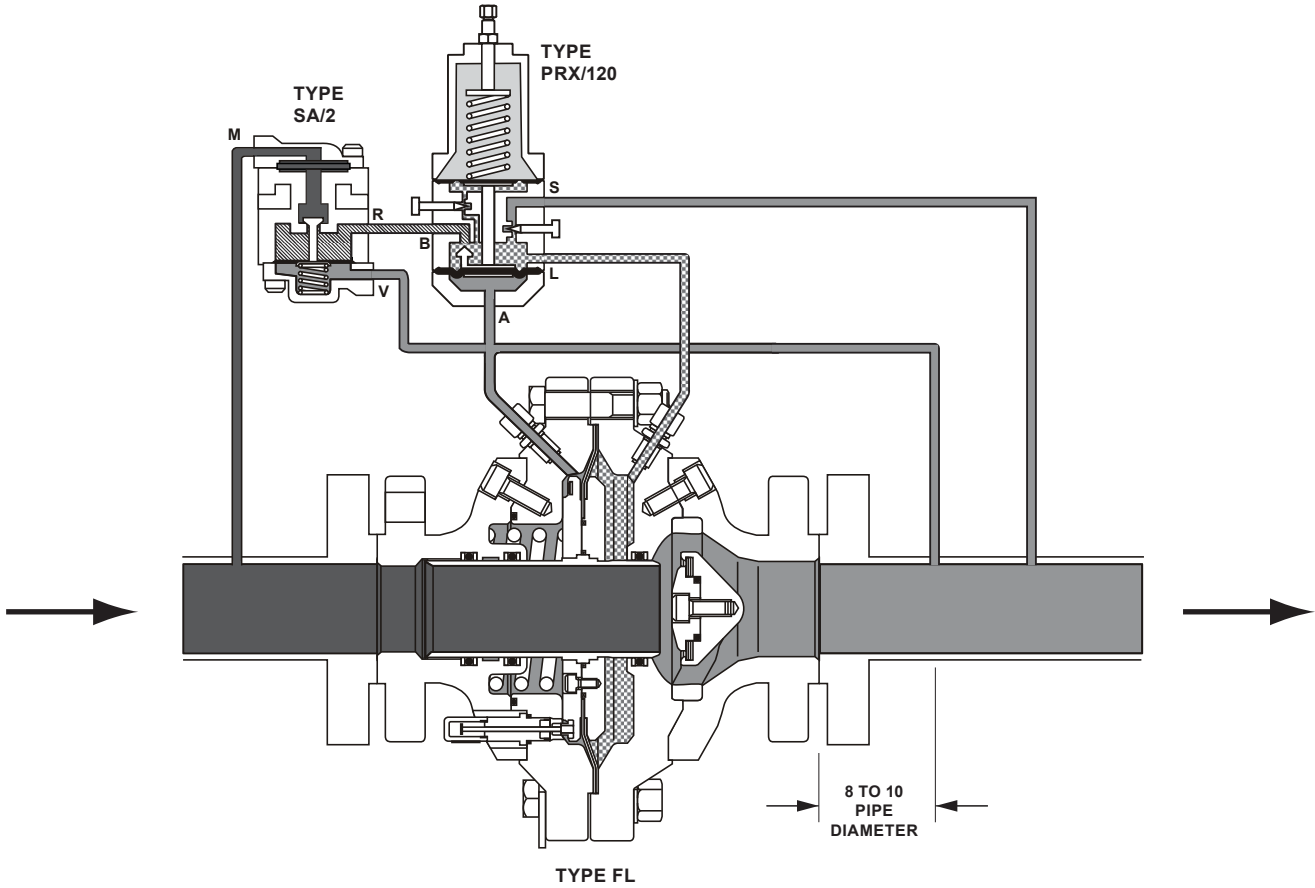
Type SRII: The Type SRII (Figure 2) noise abatement device is the next generation of Type SR and is used in case of extreme service conditions (dirty gas, high pressure drops and high gas velocities). Noise characteristics are very similar to the standard Type SR.

Type SRS: A second noise reduction device may be added to the Type FL regulators. Type SRS (Figure 2) consists of a Type SR or SRII plus a widened outlet flange in which a second silencer is fitted. Noise reduction is based on the principle of stream splitting and gradual expansion in several stages. By using a wider outlet flange the silencer can be mounted integral to the regulator body which allows installation of the regulator directly into the downstream piping without an expansion joint. Noise reduction up to 25 dB (A) is reached without limiting the velocity in the outlet flange with a C_g reduction of about 15%. Type SR/SRS Silencer is available only in NPS 1 through 6 / DN 25 through 150.

Principle of Operation

The pilot-operated Type FL (Figure 4) uses inlet pressure as the operating medium, which is reduced through pilot operation to load the actuator diaphragm. Outlet pressure opposes loading pressure in the actuator and also opposes the pilot control spring.

When outlet pressure drops below the setting of the pilot control spring, pilot control spring force on the pilot diaphragm opens the pilot valve plug, providing additional loading pressure to the actuator diaphragm.



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- INLET PRESSURE
- OUTLET PRESSURE
- ATMOSPHERIC PRESSURE
- ▨ LOADING PRESSURE
- ▩ PILOT SUPPLY PRESSURE

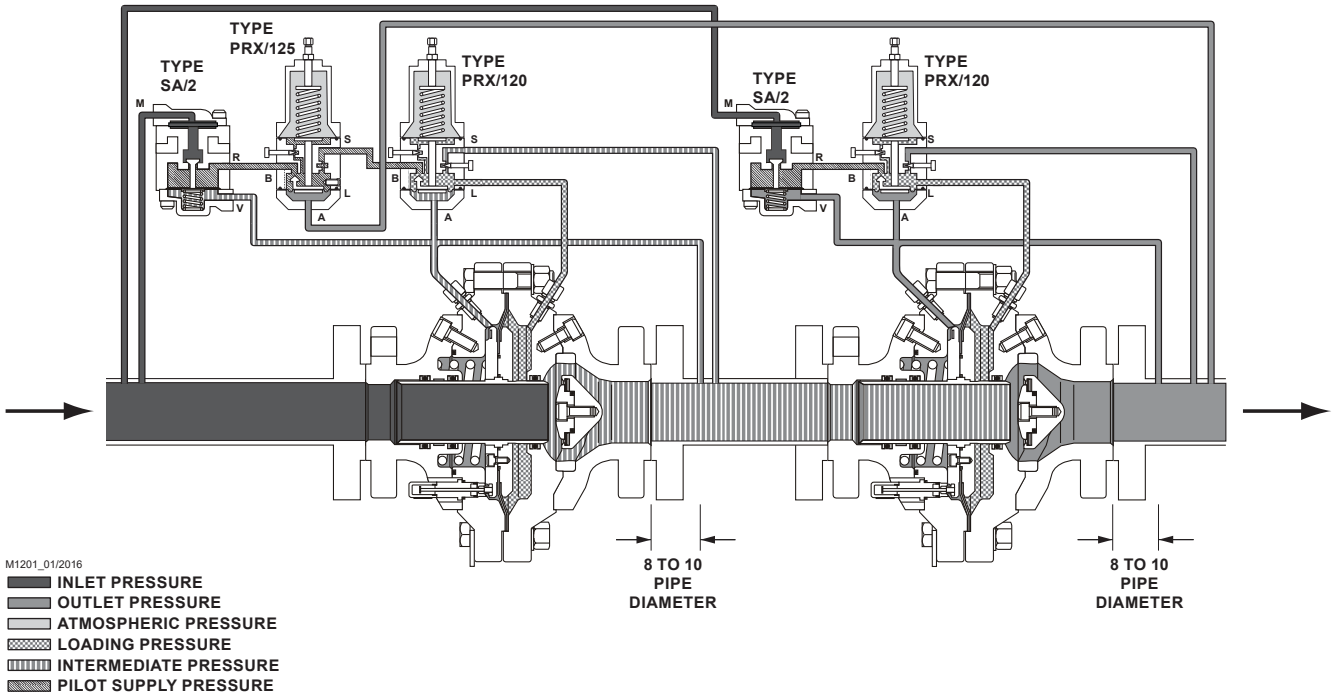
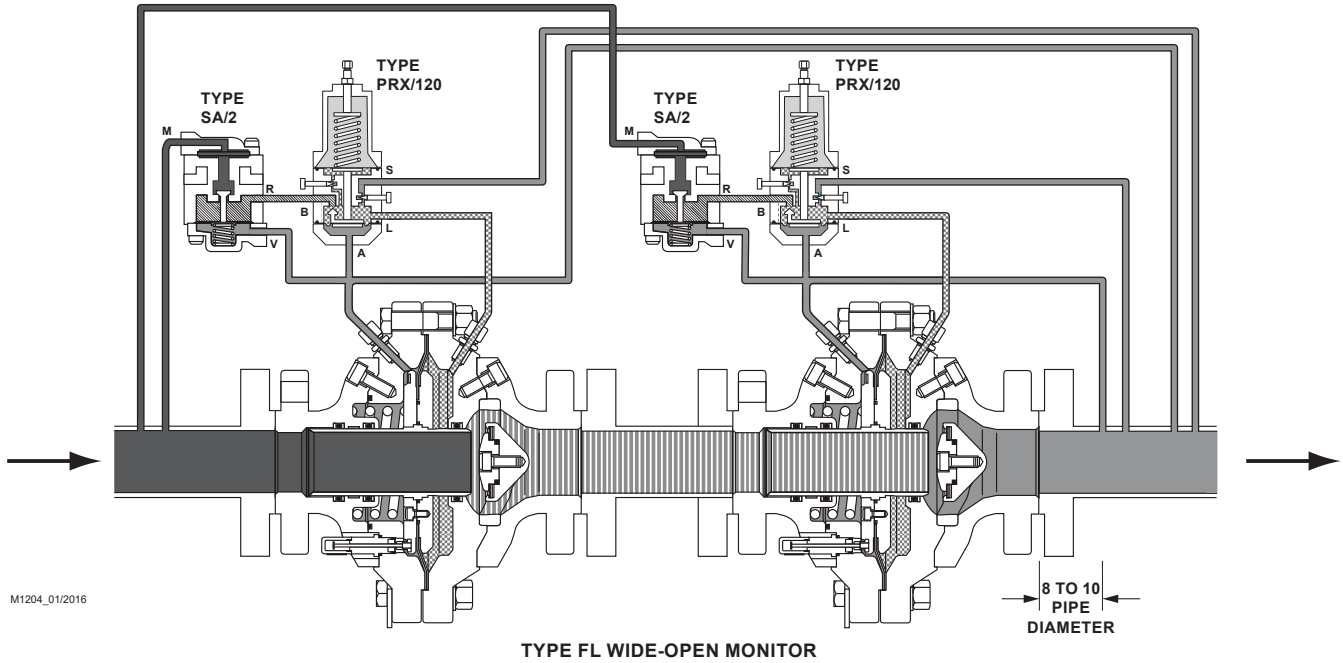
Figure 4. Type FL Operational Schematic

Table 1. Outlet (Control) Pressure Ranges

TYPE	OUTLET PRESSURE RANGE		AC (ACCURACY CLASS)	PILOT CONTROL SPRING INFORMATION					
	psig	bar		Spring Color	Part Number	Wire Diameter		Free Length	
						In.	cm	In.	cm
PRX/120 PRX/125 PRX/131	14.5 to 26	1.00 to 1.8	2.5%	Yellow	M0255240X12	0.110	0.28	2.16	5.49
	23 to 44	1.6 to 3.0	2.5%	Green	M0255230X12	0.126	0.32		
	41 to 80	2.8 to 5.5	2.5%	Blue	M0255180X12	0.138	0.35		
	73 to 123	5.0 to 8.5	2.5%	Black	M0255220X12	0.157	0.40		
PRX-AP/120 PRX-AP/125 PRX-AP/131	116 to 210	8.0 to 14.5	1%	Silver	M0255210X12	0.177	0.45	2.16	5.49
	203 to 334	14.0 to 23.0	1%	Gold	M0255200X12	0.197	0.50	2.00	5.10
	319 to 435	22.0 to 30.0	1%	Aluminum	M0255860X12	0.236	0.60	2.00	5.10
PRX-AP/120 PRX-AP/125 PRX-AP/131	435 to 1160	30.0 to 80.0	1%	Clear	M0273790X12	0.335	0.85	3.93	10.0

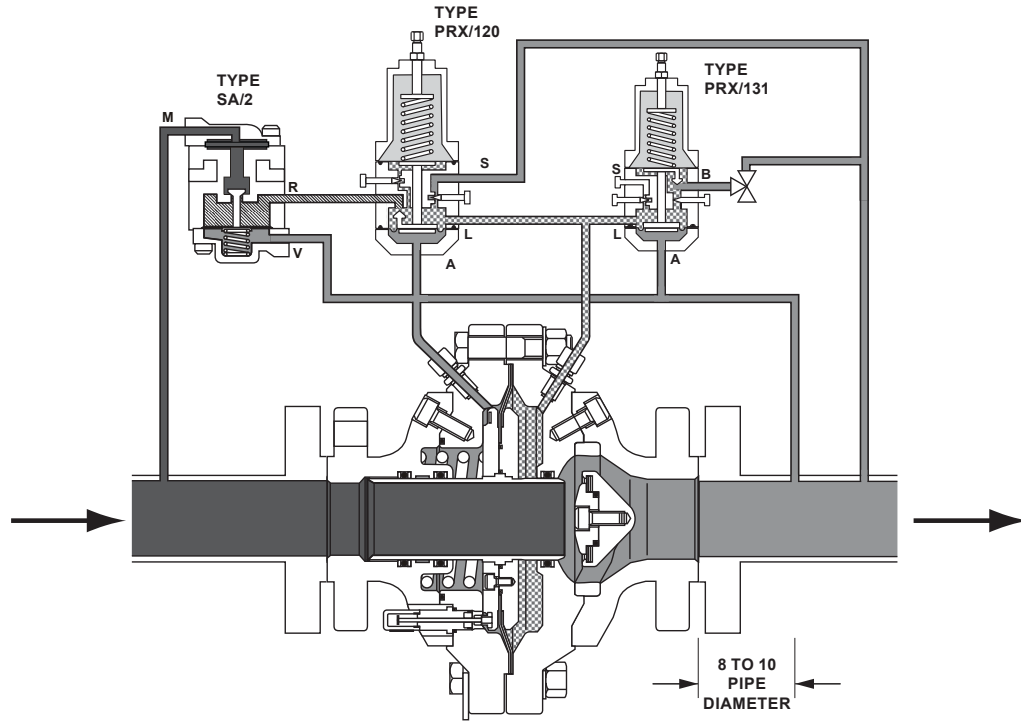
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Type FL



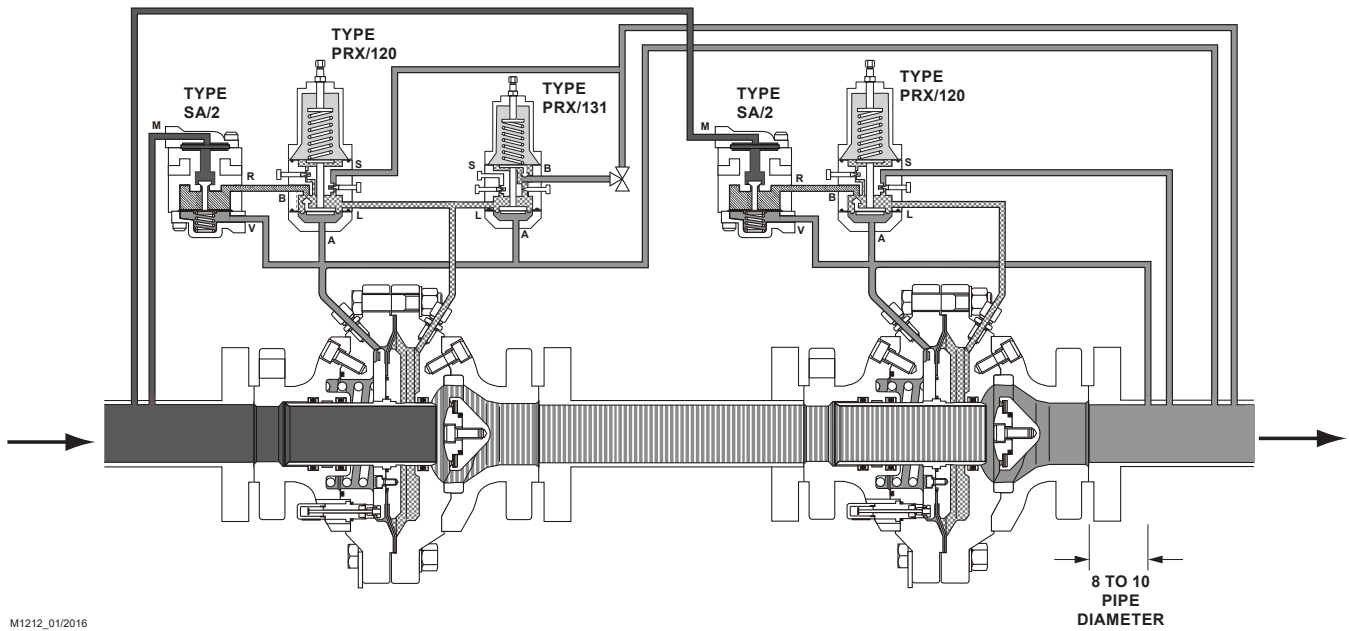
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Figure 5. Typical FL Installation Schematics



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TYPE FL WITH TYPE PRX/131 QUICK DUMP PILOT



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- INLET PRESSURE
- OUTLET PRESSURE
- ATMOSPHERIC PRESSURE
- ▨ LOADING PRESSURE
- ▨ INTERMEDIATE PRESSURE
- ▨ PILOT SUPPLY PRESSURE

TYPE FL WIDE-OPEN MONITOR WITH TYPE PRX/131 QUICK DUMP PILOT

Figure 5. Typical FL Installation Schematics (continued)

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Type FL

This diaphragm loading pressure opens the main valve plug, supplying the required flow to the downstream system. Any excess loading pressure on the actuator diaphragm escapes downstream through the exhaust restriction in the pilot.

When the gas demand in the downstream system has been satisfied, the outlet pressure increases.

The increased pressure is transmitted through the downstream control line and acts on the pilot diaphragm. This pressure exceeds the pilot spring setting and moves the diaphragm, closing the orifice. The loading pressure acting on the main diaphragm bleeds to the downstream system through the exhaust restriction in the pilot.

Installation

Type FL regulators are installed in a horizontal or vertical pipeline. An optional outlet flange spacer (Figure 6, page 8) is available to be installed downstream of the regulator. Once the spacer and outlet flange are removed, the disk holder and trim parts are easily accessed. See Figure 5 for typical piping installations. Dimensions are given in Figure 7.

Type FL may be installed in any position, but is normally installed in a horizontal pipeline with the pilot or pilots above the body. The optimal location for the sense and bleed lines is between the Type FL and the downstream block valve. If the sense and bleed lines cannot be located between the Type FL and downstream block valve, contact your local Sales Office for Startup assistance. See Figure 5 for typical piping installation.

Note

To prevent damage to the pilot during Startup, the sense and bleed lines should be located on the same side of the downstream block valve.

Monitoring Systems

Monitoring regulation is overpressure protection by containment, therefore, there is no relief valve to vent to the atmosphere. When the working regulator fails to control the pressure, a monitor regulator installed in series goes into operation to maintain the downstream

pressure at a higher value than normal pressure. During an overpressure situation, monitoring keeps the customer online. Also, testing is relatively easy and safe. To perform a periodic test on a monitoring regulator, increase the outlet set pressure of the working regulator and watch the outlet pressure to determine if the monitoring regulator takes over at the appropriate outlet pressure.

Wide-Open Monitoring Systems (Figure 5)

There are two types of wide-open monitoring systems: upstream and downstream. The difference between upstream and downstream monitoring is that the functions of the regulators (monitor and worker) are reversed. Systems can be changed from upstream to downstream monitoring and vice-versa, by simply reversing the setpoints of the two regulators. The decision to use either an upstream or downstream monitoring system is largely a matter of personal preference or company policy.

In normal operation of a wide-open configuration, the working regulator controls the system's outlet pressure. With a higher outlet pressure setting, the monitor regulator senses a pressure lower than its setpoint and tries to increase outlet pressure by going wide open. If the working regulator fails, the monitoring regulator assumes control and holds the outlet pressure at its outlet pressure setting.

Working Monitoring Regulators (Figure 5)

In a working monitoring system, the upstream regulator requires two pilots and it is always the monitoring regulator. The additional pilot permits the monitoring regulator to act as a series regulator to control an intermediate pressure during normal operation.

In this way, both units are always operating and can be easily checked for proper operation.

In normal operation, the working regulator controls the outlet pressure of the system. The monitoring regulator's working pilot controls the intermediate pressure and the monitoring pilot senses the system's outlet pressure. If the working regulator fails, the monitoring pilot will sense the increase in outlet pressure and take control.

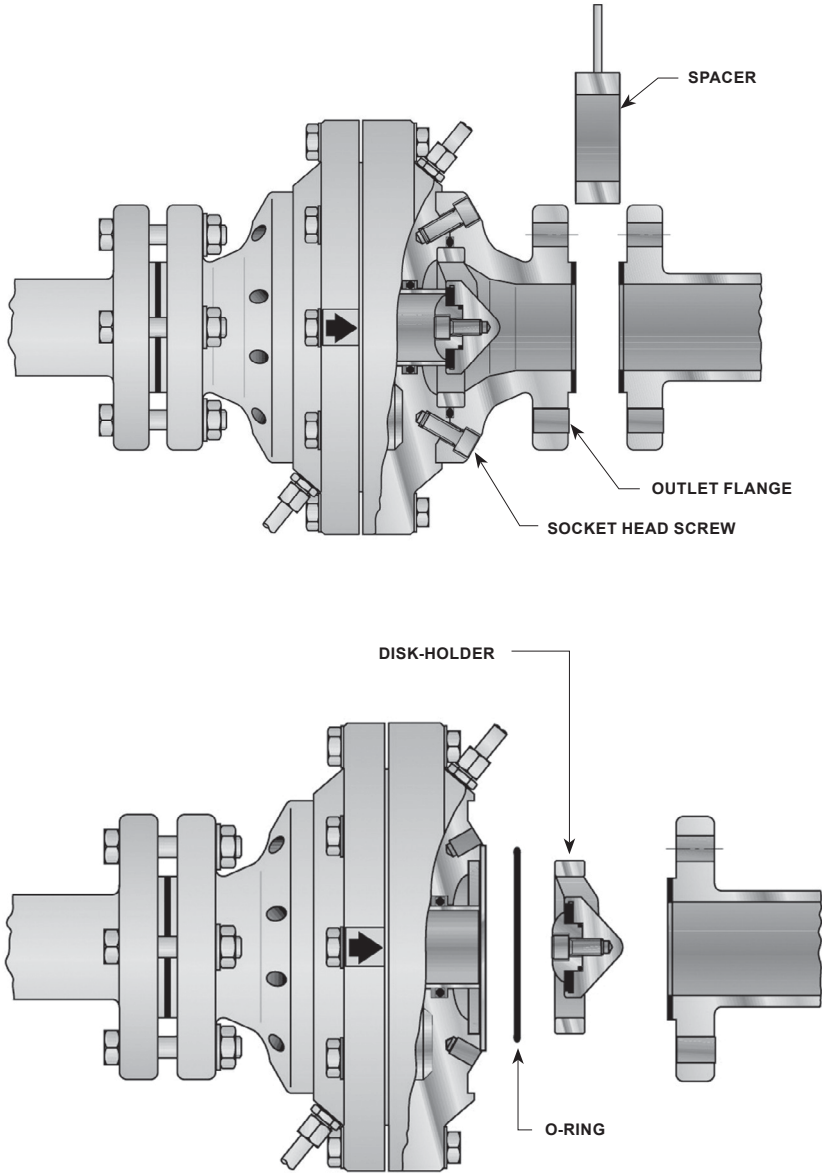


Figure 6. Outlet Flange Spacer Installation

 **WARNING**

The working regulator must be rated for the maximum allowable operating pressure of the system because this will be its inlet pressure if the monitoring regulator fails. Also, the outlet pressure rating of the monitoring pilot and any other components that are exposed to the intermediate pressure must be rated for full inlet pressure.

Working monitor installations require a Type FL main valve with a Type PRX/120 or PRX-AP/120 working pilot and a Type PRX/125 or PRX-AP/125 monitoring pilot for the upstream regulator and a Type FL with the appropriate Type PRX/120 or PRX-AP/120 pilot for the downstream regulator.

North America Only

Type FL

Table 2. Flow and Sizing Coefficients

BODY SIZE, NPS / DN	LINE SIZE EQUALS BODY SIZE								2:1 LINE SIZE TO BODY SIZE RATIO							
	Regulating		Wide-open		C ₁	IEC Sizing Coefficients			Regulating		Wide-open		C ₁	IEC Sizing Coefficients		
	C _g	C _v	C _g	C _v		X _T	F _D	F _L	C _g	C _v	C _g	C _v		X _T	F _D	F _L
Type FL																
1 / 25	590	18.4	610	18.9	32.1	0.65	0.73	0.89	550	16.4	570	16.9	33.5	0.71	0.69	0.89
2 / 50	2300	70.6	2400	72.7	32.6	0.67	0.69	0.89	2200	67.7	2300	69.7	32.5	0.67	0.68	0.89
3 / 80	5200	161.9	5400	166.8	32.1	0.69	0.70	0.89	4900	161.4	5000	166.3	30.4	0.58	0.70	0.89
4 / 100	8000	249.3	8200	256.8	32.1	0.65	0.65	0.89	7900	244.9	8100	252.2	32.3	0.66	0.64	0.89
6 / 150	20,300	735.8	20,900	757.8	27.6	0.48	0.71	0.89	18,400	666.7	19,000	686.7	27.6	0.48	0.67	0.89
8 / 200	30,900	1080.4	32,800	1112.8	28.6	0.52	0.66	0.89	30,600	1069.9	31,500	1102.0	28.6	0.52	0.65	0.89
10 / 250	52,100	1615.4	53,600	1663.9	32.3	0.66	0.69	0.89	51,500	1599.7	53,100	1647.7	32.2	0.66	0.69	0.89
Type FL-SR																
1 / 25	580	17.4	600	17.9	33.4	0.70	0.89	0.89	530	15.5	550	15.9	34.3	0.74	0.84	0.89
2 / 50	2200	65.3	2300	67.2	33.7	0.72	0.84	0.89	2100	60.7	2200	62.6	34.6	0.76	0.81	0.89
3 / 80	5000	151.7	5200	156.3	33.0	0.69	0.85	0.89	4700	149.4	4800	153.9	31.5	0.63	0.84	0.89
4 / 100	7400	226.5	7600	233.3	32.7	0.67	0.78	0.89	7300	226.0	7500	232.8	32.3	0.66	0.77	0.89
6 / 150	17,800	597.5	18,300	615.4	29.8	0.56	0.80	0.89	16,900	567.1	17,400	584.1	29.8	0.56	0.78	0.89
Type FL-SR/SRS																
1 / 25	570	15.6	590	16.0	36.6	0.85	0.84	0.89	500	13.5	520	13.9	37.0	0.87	0.78	0.89
2 / 50	1900	48.9	2000	50.4	38.9	0.95	0.73	0.89	1850	47.2	1900	48.6	39.2	0.97	0.71	0.89
3 / 80	4000	111.7	4100	115.1	35.8	0.81	0.73	0.89	3800	104.8	3900	107.9	36.3	0.83	0.70	0.89
4 / 100	6200	164.7	6400	169.6	37.7	0.90	0.66	0.89	6100	170.6	6300	175.7	35.8	0.81	0.67	0.89
6 / 150 ⁽¹⁾	13,490	397.8	13,890	409.7	33.9	0.73	0.68	0.89	13,030	380.5	13,420	391.9	34.2	0.74	0.67	0.89
Type FL-SRII																
1 / 25	540	16.0	560	16.5	33.5	0.82	0.05	0.89	490	14.2	500	14.6	34.5	0.73	0.04	0.89
2 / 50	2000	59.8	2100	61.6	33.4	0.81	0.03	0.89	1900	55.6	2000	57.3	34.2	0.75	0.03	0.89
3 / 80	4400	138.0	4500	142.1	30.0	0.55	0.03	0.89	4200	143.7	4300	148.0	29.3	0.54	0.03	0.89
4 / 100	6500	196.5	6700	202.4	32.9	0.69	0.02	0.89	6400	203.9	6600	210.0	31.5	0.63	0.02	0.89
6 / 150	16,200	480.7	16,700	495.1	31.7	0.65	0.02	0.89	15,400	500.7	15,800	515.7	30.7	0.60	0.02	0.89
8 / 200	25,335	784.0	26,100	807.5	32.3	0.66	0.01	0.89	24,200	749.1	24,900	771.6	32.3	0.66	0.01	0.89
10 / 250	42,500	1197.9	43,800	1233.8	35.5	0.8	0.01	0.89	40,600	1144.6	41,800	1178.9	35.5	0.8	0.01	0.89
Type FL-SRII/SRS																
1 / 25	530	14.3	550	14.7	37.1	0.99	0.04	0.89	520	15.2	540	15.7	33.9	0.89	0.04	0.89
2 / 50	1700	44.8	1800	46.1	38.0	0.98	0.03	0.89	1700	43.2	1800	44.5	39.4	0.96	0.03	0.89
3 / 80	3500	101.6	3600	104.6	34.4	0.65	0.02	0.89	3400	100.8	3500	103.8	33.7	0.71	0.02	0.89
4 / 100	5400	142.9	5600	147.2	37.8	0.93	0.02	0.89	5300	153.9	5500	158.5	34.4	0.77	0.02	0.89
6 / 150 ⁽¹⁾	12,830	374.9	13,220	386.1	34.2	0.74	0.01	0.89	12,310	355.7	12,680	366.4	34.6	0.76	0.02	0.89
8 / 200	20,100	515.0	20,700	530.5	39.0	0.96	0.01	0.89	19,200	492.1	19,800	506.9	39.0	0.66	0.01	0.89

1. Sizing values reflect current 6-bolt Type SRS design. See previous document revisions for information on obsolete 1-bolt Type SRS design.

Table 3. Capacities for Type FL with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS													
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body		NPS 8 / DN 200 Body		NPS 10 / DN 250 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
30	2.1	15	1.0	30	0.8	115	3.1	262	7.0	404	10.8	1105	29.6	1656	44.4	2637	70.7
		20	1.4	39	1.1	153	4.1	347	9.3	534	14.3	1415	37.9	2140	57.3	3489	93.5
40	2.8	25	1.7	34	0.9	132	3.5	302	8.1	465	12.5	1291	34.6	1927	51.6	3028	81.2
		15	1.0	48	1.3	186	5.0	423	11.3	651	17.4	1685	45.1	2564	68.7	4254	114
50	3.4	25	1.7	45	1.2	174	4.7	395	10.6	609	16.3	1643	44.0	2472	66.2	3968	106
		35	2.4	38	1.0	148	4.0	337	9.0	519	13.9	1457	39.0	2168	58.1	3379	90.6
60	4.1	up to 16	up to 1.1	56	1.5	218	5.8	494	13.2	760	20.4	1939	52.0	2962	79.4	4965	133
		20	1.4	55	1.5	215	5.8	488	13.1	751	20.1	1947	52.2	2961	79.4	4904	131
		30	2.1	52	1.4	203	5.4	461	12.4	710	19.0	1909	51.2	2875	77.1	4626	124
		45	3.1	42	1.1	162	4.3	370	9.9	569	15.2	1608	43.1	2388	64.0	3699	99.1
75	5.2	up to 22	up to 1.5	67	1.8	262	7.0	594	15.9	913	24.5	2330	62.4	3560	95.4	5964	160
		30	2.1	66	1.8	255	6.8	581	15.6	893	23.9	2339	62.7	3548	95.1	5826	156
		40	2.8	62	1.7	242	6.5	550	14.7	847	22.7	2285	61.2	3438	92.1	5515	148
100	6.9	60	4.1	47	1.3	181	4.8	414	11.1	637	17.1	1813	48.6	2687	72.0	4135	111
		up to 32	up to 2.2	86	2.3	335	9.0	760	20.4	1169	31.3	2982	79.9	4556	122	7629	204
		40	2.8	85	2.3	329	8.8	748	20.0	1151	30.8	2995	80.3	4551	122	7502	201
		50	3.4	82	2.2	318	8.5	723	19.4	1112	29.8	2966	79.5	4476	120	7242	194
125	8.6	85	5.9	54	1.5	209	5.6	478	12.8	736	19.7	2113	56.6	3126	83.8	4777	128
		up to 43	up to 3.0	105	2.8	408	10.9	925	24.8	1424	38.2	3637	97.5	5555	149	9282	249
		50	3.4	104	2.8	403	10.8	915	24.5	1408	37.7	3650	97.8	5552	149	9174	246
		75	5.2	95	2.6	368	9.9	839	22.5	1291	34.6	3513	94.1	5272	141	8393	225
150	10.3	110	7.6	61	1.6	234	6.3	535	14.3	824	22.1	2378	63.7	3513	94.1	5344	143
		up to 52	up to 3.6	124	3.3	482	12.9	1093	29.3	1681	45.1	4285	115	6549	176	10,959	294
		75	5.2	119	3.2	461	12.4	1048	28.1	1613	43.2	4280	115	6469	173	10,498	281
		95	6.6	110	3.0	425	11.4	970	26.0	1493	40.0	4087	110	6124	164	9701	260
200	13.8	130	9.0	76	2.0	291	7.8	666	17.8	1025	27.5	2948	79.0	4359	117	6646	178
		up to 73	up to 5.0	162	4.3	628	16.8	1424	38.2	2192	58.7	5592	150	8544	229	14,277	383
		100	6.9	156	4.2	604	16.2	1374	36.8	2114	56.6	5591	150	8457	227	13,749	368
		125	8.7	145	3.9	562	15.1	1281	34.3	1972	52.8	5378	144	8068	216	12,812	343
300	20.7	185	12.8	77	2.1	296	7.9	679	18.2	1045	28.0	3040	81.5	4481	120	6771	181
		up to 115	up to 7.9	237	6.3	920	24.7	2088	55.9	3212	86.1	8205	220	12,533	336	20,913	560
		150	10.3	230	6.2	890	23.8	2023	54.2	3113	83.4	8212	220	12,432	333	20,246	543
		200	13.8	208	5.6	801	21.5	1828	49.0	2813	75.4	7733	207	11,575	310	18,263	489
400	27.6	275	19.0	120	3.2	461	12.3	1055	28.3	1625	43.5	4716	126	6956	186	10,525	282
		up to 155	up to 10.7	312	8.4	1214	32.5	2753	73.8	4236	114	10,812	290	16,518	443	27,573	739
		200	13.8	303	8.1	1176	31.5	2673	71.6	4113	110	10,832	290	16,404	440	26,739	717
		250	17.2	284	7.6	1097	29.4	2501	67.0	3848	103	10,464	280	15,709	421	24,989	670
500	34.5	300	20.7	250	6.7	963	25.8	2200	59.0	3386	90.8	9482	254	14,122	379	21,964	589
		350	24.1	190	5.1	731	19.6	1673	44.8	2575	69.0	7409	199	10,953	294	16,682	447
		up to 196	up to 13.5	388	10.4	1507	40.4	3417	91.6	5258	141	13,422	360	20,506	550	34,221	917
		225	15.5	383	10.3	1486	39.8	3375	90.4	5193	139	13,478	361	20,495	549	33,775	905
600	41.4	300	20.7	359	9.6	1389	37.2	3163	84.8	4868	131	13,145	352	19,771	530	31,612	847
		400	27.6	286	7.7	1103	29.6	2522	67.6	3882	104	10,988	295	16,317	437	25,165	674
		up to 237	up to 16.3	463	12.4	1800	48.2	4082	109	6280	168	16,033	430	24,493	656	40,869	1095
		300	20.7	451	12.1	1747	46.8	3971	106	6111	164	16,070	431	24,348	653	39,724	1065
700	48.3	375	25.9	422	11.3	1632	43.7	3719	99.7	5724	153	15,547	417	23,347	626	37,161	996
		450	31.0	372	10.0	1434	38.4	3276	87.8	5041	135	14,108	378	21,014	563	32,694	876
		500	34.5	319	8.6	1228	32.9	2809	75.3	4324	116	12,327	330	18,270	490	28,021	751
		up to 278	up to 19.2	539	14.4	2093	56.1	4746	127	7303	196	18,643	500	28,480	763	47,517	1273
		300	20.7	535	14.3	2078	55.7	4717	126	7258	195	18,699	501	28,493	764	47,210	1265
		350	24.1	525	14.1	2033	54.5	4621	124	7110	191	18,689	501	28,319	759	46,216	1239
700	48.3	400	27.6	508	13.6	1966	52.7	4476	120	6888	185	18,450	495	27,812	745	44,738	1199
		550	37.9	410	11.0	1578	42.3	3606	96.6	5551	149	15,656	420	23,270	624	35,983	964
		600	41.4	349	9.3	1342	36.0	3071	82.3	4726	127	13,543	363	20,045	537	30,622	821

North America Only

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Type FL

Table 3. Capacities for Type FL with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio (continued)

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS													
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body		NPS 8 / DN 200 Body		NPS 10 / DN 250 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
800	55.2	up to 300	up to 20.7	616	16.5	2395	64.2	5430	146	8355	224	21,179	568	32,419	869	54,374	1457
		350	24.1	609	16.3	2365	63.4	5368	144	8260	221	21,327	572	32,477	870	53,720	1440
		400	27.6	598	16.0	2318	62.1	5270	141	8109	217	21,307	571	32,290	865	52,707	1413
		450	31.0	582	15.6	2254	60.4	5129	138	7893	212	21,089	565	31,813	853	51,272	1374
		500	34.5	561	15.0	2167	58.1	4938	132	7599	204	20,630	553	30,984	830	49,332	1322
900	62.1	up to 350	up to 24.1	691	18.5	2684	71.9	6086	163	9364	251	23,827	639	36,433	976	60,929	1633
		400	27.6	683	18.3	2651	71.1	6019	161	9261	248	23,952	642	36,458	977	60,226	1614
		500	34.5	656	17.6	2541	68.1	5782	155	8898	239	23,723	636	35,806	960	57,797	1549
		600	41.4	609	16.3	2353	63.1	5366	144	8259	221	22,648	607	33,921	909	53,591	1436
		800	55.2	402	10.8	1545	41.4	3538	94.8	5445	146	15,707	421	23,207	622	35,269	945
1000	69.0	up to 350	up to 24.1	770	20.6	2995	80.3	6785	182	10,440	280	26,244	703	40,266	1079	67,954	1821
		400	27.6	765	20.5	2972	79.6	6740	181	10,371	278	26,470	709	40,440	1084	67,472	1808
		500	34.5	746	20.0	2890	77.4	6568	176	10,107	271	26,544	711	40,232	1078	65,690	1760
		600	41.4	711	19.1	2748	73.7	6260	168	9634	258	25,979	696	39,089	1048	62,550	1676
		800	55.2	568	15.2	2187	58.6	5001	134	7697	206	21,774	584	32,338	867	49,886	1337
1100	75.8	up to 350	up to 24.1	848	22.7	3301	88.5	7472	200	11,496	308	28,605	767	44,016	1180	74,857	2006
		450	31.0	839	22.5	3259	87.4	7394	198	11,377	305	29,109	780	44,441	1191	74,007	1983
		500	34.5	831	22.3	3223	86.4	7319	196	11,263	302	29,199	783	44,415	1190	73,230	1963
		600	41.4	804	21.6	3114	83.5	7085	190	10,903	292	28,983	777	43,781	1173	70,826	1898
		800	55.2	698	18.7	2691	72.1	6144	165	9456	253	26,306	705	39,246	1052	61,326	1644
1200	82.7	up to 350	up to 24.1	925	24.8	3603	96.6	8151	218	12,540	336	30,928	829	47,710	1279	81,673	2189
		500	34.5	913	24.5	3547	95.1	8047	216	12,382	332	31,744	851	48,437	1298	80,535	2158
		600	41.4	893	23.9	3461	92.8	7867	211	12,105	324	31,782	852	48,174	1291	78,672	2108
		800	55.2	810	21.7	3129	83.9	7135	191	10,981	294	30,105	807	45,093	1209	71,253	1910
		1100	75.8	471	12.6	1808	48.5	4142	111	6376	171	18,499	496	27,289	731	41,285	1106
1300	89.6	up to 350	up to 24.1	1001	26.8	3902	105	8823	237	13,573	364	33,224	890	51,362	1377	88,428	2370
		500	34.5	994	26.6	3863	104	8758	235	13,475	361	34,214	917	52,347	1403	87,675	2350
		600	41.4	978	26.2	3795	102	8619	231	13,263	356	34,443	923	52,367	1403	86,227	2311
		800	55.2	913	24.5	3528	94.6	8038	215	12,369	332	33,477	897	50,321	1349	80,297	2152
		1160	80.0	571	15.3	2195	58.8	5027	135	7738	207	22,334	599	32,992	884	50,112	1343
1400	96.5	up to 350	up to 24.1	1077	28.9	4199	113	9490	254	14,600	391	35,498	951	54,984	1474	95,154	2550
		500	34.5	1073	28.8	4174	112	9457	253	14,550	390	36,628	982	56,177	1506	94,696	2538
		600	41.4	1061	28.4	4121	110	9351	251	14,389	386	37,009	992	56,419	1512	93,576	2508
		800	55.2	1008	27.0	3902	105	8882	238	13,669	366	36,575	980	55,149	1478	88,769	2379
		1160	80.0	747	20.0	2875	77.1	6576	176	10,122	271	28,813	772	42,721	1145	65,585	1758
1480	102	up to 350	up to 24.1	1137	30.5	4436	119	10,022	269	15,417	413	37,307	1000	57,865	1551	100,535	2694
		500	34.5	1136	30.4	4420	118	10,009	268	15,400	413	38,530	1033	59,196	1587	100,246	2687
		600	41.4	1126	30.2	4376	117	9926	266	15,272	409	39,010	1046	59,584	1597	99,343	2662
		800	55.2	1082	29.0	4189	112	9529	255	14,664	393	38,913	1043	58,810	1576	95,257	2553
		1160	80.0	863	23.1	3325	89.1	7599	204	11,696	314	32,960	883	49,003	1313	75,813	2032

North America Only

Table 4. Capacities for Type FL-SR with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS									
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
30	2.1	15	1.0	29	0.8	108	2.9	249	6.7	370	9.9	935	25.1
40	2.8	15	1.0	38	1.0	144	3.9	330	8.8	490	13.1	1220	32.7
		25	1.7	33	0.9	124	3.3	285	7.6	425	11.4	1084	29.0
50	3.4	15	1.0	47	1.3	176	4.7	404	10.8	599	16.1	1471	39.4
		25	1.7	43	1.2	163	4.4	375	10.1	558	14.9	1401	37.6
		35	2.4	37	1.0	138	3.7	318	8.5	474	12.7	1216	32.6
60	4.1	up to 16	up to 1.1	55	1.5	206	5.5	472	12.7	700	18.8	1707	45.7
		20	1.4	54	1.4	203	5.4	466	12.5	691	18.5	1699	45.5
		30	2.1	50	1.3	190	5.1	438	11.7	651	17.4	1632	43.7
		45	3.1	40	1.1	151	4.0	348	9.3	519	13.9	1337	35.8
75	5.2	up to 22	up to 1.5	66	1.8	248	6.7	567	15.2	842	22.6	2051	55.0
		30	2.1	64	1.7	241	6.5	553	14.8	821	22.0	2029	54.4
		40	2.8	60	1.6	227	6.1	522	14.0	776	20.8	1950	52.2
		60	4.1	45	1.2	168	4.5	389	10.4	580	15.6	1501	40.2
100	6.9	up to 32	up to 2.2	84	2.3	318	8.5	727	19.5	1078	28.9	2626	70.4
		40	2.8	82	2.2	311	8.3	713	19.1	1058	28.4	2608	69.9
		50	3.4	79	2.1	299	8.0	687	18.4	1021	27.4	2547	68.3
		85	5.9	52	1.4	194	5.2	450	12.1	671	18.0	1742	46.7
125	8.6	up to 43	up to 3.0	102	2.7	387	10.4	884	23.7	1312	35.2	3199	85.7
		50	3.4	101	2.7	381	10.2	873	23.4	1295	34.7	3185	85.3
		75	5.2	92	2.5	345	9.3	795	21.3	1182	31.7	2983	79.9
		110	7.6	58	1.5	217	5.8	503	13.5	750	20.1	1955	52.4
150	10.3	up to 52	up to 3.6	121	3.2	457	12.2	1045	28.0	1549	41.5	3774	101
		75	5.2	115	3.1	434	11.6	997	26.7	1481	39.7	3686	98.8
		95	6.6	106	2.8	399	10.7	918	24.6	1366	36.6	3459	92.7
		130	9.0	72	1.9	270	7.2	626	16.8	933	25.0	2428	65.1
200	13.8	up to 73	up to 5.0	157	4.2	595	16.0	1362	36.5	2019	54.1	4922	132
		100	6.9	151	4.0	569	15.3	1307	35.0	1941	52.0	4823	129
		125	8.7	140	3.7	527	14.1	1214	32.5	1806	48.4	4561	122
		185	12.8	73	2.0	275	7.4	637	17.1	951	25.5	2488	66.7
300	20.7	up to 115	up to 7.9	231	6.2	872	23.4	1995	53.5	2959	79.3	7218	193
		150	10.3	222	6.0	839	22.5	1926	51.6	2860	76.6	7096	190
		200	13.8	199	5.3	750	20.1	1730	46.4	2574	69.0	6530	175
		275	19.0	114	3.0	427	11.5	991	26.6	1479	39.6	3865	104
400	27.6	up to 155	up to 10.7	304	8.2	1151	30.8	2632	70.5	3903	105	9516	255
		200	13.8	294	7.9	1109	29.7	2544	68.2	3778	101	9367	251
		250	17.2	273	7.3	1029	27.6	2370	63.5	3525	94.5	8889	238
		300	20.7	239	6.4	899	24.1	2077	55.7	3093	82.9	7926	212
500	34.5	350	24.1	180	4.8	679	18.2	1573	42.2	2345	62.9	6100	164
		up to 196	up to 13.5	378	10.1	1429	38.3	3267	87.5	4845	130	11,813	317
		225	15.5	372	10.0	1405	37.7	3219	86.3	4777	128	11,751	315
		300	20.7	346	9.3	1304	35.0	3001	80.4	4461	120	11,210	300
600	41.4	400	27.6	273	7.3	1028	27.5	2377	63.7	3542	94.9	9130	245
		up to 237	up to 16.3	451	12.1	1706	45.7	3902	105	5787	155	14,109	378
		300	20.7	436	11.7	1648	44.2	3781	101	5615	151	13,909	373
		375	25.9	406	10.9	1531	41.0	3526	94.5	5243	141	13,216	354
700	48.3	450	31.0	355	9.5	1339	35.9	3092	82.9	4605	123	11,796	316
		500	34.5	304	8.1	1143	30.6	2645	70.9	3942	106	10,202	273
		up to 278	up to 19.2	524	14.1	1984	53.2	4537	122	6728	180	16,406	440
		300	20.7	520	13.9	1967	52.7	4503	121	6681	179	16,371	439
		350	24.1	508	13.6	1918	51.4	4400	118	6533	175	16,179	434
		400	27.6	490	13.1	1849	49.6	4251	114	6317	169	15,805	424
700	48.3	550	37.9	391	10.5	1471	39.4	3401	91.1	5066	136	13,034	349
		600	41.4	331	8.9	1247	33.4	2889	77.4	4307	115	11,178	300

North America Only

- continued -

Type FL

Table 4. Capacities for Type FL-SR with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio (continued)

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS									
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
800	55.2	up to 300	up to 20.7	601	16.1	2274	60.9	5195	139	7703	206	18,712	502
		350	24.1	592	15.9	2238	60.0	5123	137	7602	204	18,649	500
		400	27.6	579	15.5	2188	58.6	5018	134	7451	200	18,450	495
		450	31.0	562	15.1	2121	56.8	4873	131	7242	194	18,092	485
		500	34.5	539	14.4	2033	54.5	4681	126	6961	187	17,541	470
		650	44.8	423	11.3	1593	42.7	3685	98.8	5490	147	14,172	380
900	62.1	up to 350	up to 24.1	673	18.0	2546	68.2	5820	156	8630	231	21,007	563
		400	27.6	663	17.8	2508	67.2	5743	154	8523	228	20,925	561
		500	34.5	633	17.0	2392	64.1	5495	147	8164	219	20,375	546
		600	41.4	584	15.7	2204	59.1	5080	136	7558	203	19,150	513
1000	69.0	800	55.2	381	10.2	1435	38.4	3326	89.1	4959	133	12,917	346
		up to 350	up to 24.1	752	20.2	2847	76.3	6499	174	9632	258	23,296	624
		400	27.6	745	20.0	2818	75.5	6443	173	9556	256	23,297	624
		500	34.5	722	19.3	2727	73.1	6255	168	9288	249	22,991	616
		600	41.4	684	18.3	2582	69.2	5940	159	8830	237	22,172	594
1100	75.8	800	55.2	541	14.5	2038	54.6	4714	126	7023	188	18,097	485
		up to 350	up to 24.1	830	22.2	3142	84.2	7166	192	10,617	285	25,541	685
		450	31.0	817	21.9	3089	82.8	7066	189	10,480	281	25,584	686
		500	34.5	806	21.6	3048	81.7	6982	187	10,362	278	25,474	683
		600	41.4	777	20.8	2933	78.6	6736	181	10,007	268	24,934	668
		800	55.2	667	17.9	2515	67.4	5805	156	8642	232	22,067	591
1200	82.7	1000	69.0	425	11.4	1600	42.9	3712	99.5	5536	148	14,453	387
		up to 350	up to 24.1	907	24.3	3435	92.1	7826	210	11,590	311	27,753	744
		500	34.5	888	23.8	3360	90.1	7687	206	11,403	306	27,868	747
		600	41.4	864	23.2	3266	87.5	7492	201	11,124	298	27,532	738
		800	55.2	777	20.8	2931	78.6	6755	181	10,050	269	25,459	682
1300	89.6	1100	75.8	446	12.0	1677	44.9	3891	104	5803	156	15,164	406
		up to 350	up to 24.1	983	26.3	3725	99.8	8479	227	12,554	336	29,942	803
		500	34.5	969	26.0	3666	98.2	8377	224	12,421	333	30,201	809
		600	41.4	949	25.4	3588	96.2	8220	220	12,200	327	30,021	805
		800	55.2	878	23.5	3312	88.8	7623	204	11,334	304	28,514	764
1400	96.5	1160	80.0	542	14.5	2038	54.6	4725	127	7046	189	18,360	492
		up to 350	up to 24.1	1058	28.4	4013	108	9129	245	13,511	362	32,115	861
		500	34.5	1048	28.1	3966	106	9056	243	13,423	360	32,489	871
		600	41.4	1032	27.7	3902	105	8930	239	13,248	355	32,431	869
		800	55.2	972	26.1	3671	98.4	8437	226	12,539	336	31,350	840
1480	102	1160	80.0	711	19.0	2676	71.7	6194	166	9230	247	23,867	640
		up to 350	up to 24.1	1119	30.0	4242	114	9646	259	14,274	383	33,843	907
		500	34.5	1110	29.8	4204	113	9593	257	14,215	381	34,295	919
		600	41.4	1097	29.4	4148	111	9487	254	14,070	377	34,318	920
		800	55.2	1045	28.0	3946	106	9062	243	13,462	361	33,509	898
		1160	80.0	823	22.1	3100	83.1	7167	192	10,676	286	27,453	736

North America Only

Table 5. Capacities for Type FL-SR/SRS with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS									
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
30	2.1	15	1.0	26	0.7	85	2.3	189	5.1	282	7.6	662	17.7
40	2.8	15	1.0	36	1.0	115	3.1	254	6.8	382	10.2	883	23.6
		25	1.7	30	0.8	96	2.6	215	5.8	321	8.6	758	20.3
50	3.4	15	1.0	44	1.2	143	3.8	313	8.4	474	12.7	1083	29.0
		25	1.7	40	1.1	129	3.5	286	7.7	430	11.5	1000	26.8
		35	2.4	34	0.9	107	2.9	239	6.4	356	9.6	843	22.6
60	4.1	up to 16	up to 1.1	52	1.4	169	4.5	368	9.9	558	15.0	1269	33.9
		20	1.4	51	1.4	165	4.4	361	9.7	546	14.6	1248	33.4
		30	2.1	47	1.3	151	4.0	334	9.0	503	13.5	1167	31.2
		45	3.1	37	1.0	116	3.1	261	7.0	388	10.4	922	24.7
75	5.2	up to 22	up to 1.5	62	1.7	203	5.4	442	11.9	671	18.0	1524	40.8
		30	2.1	60	1.6	194	5.2	427	11.4	645	17.3	1480	39.6
		40	2.8	56	1.5	180	4.8	398	10.7	598	16.0	1390	37.2
		60	4.1	41	1.1	129	3.5	291	7.8	432	11.6	1028	27.5
100	6.9	up to 32	up to 2.2	80	2.1	260	7.0	566	15.2	860	23.0	1950	52.2
		40	2.8	78	2.1	251	6.7	552	14.8	834	22.4	1908	51.1
		50	3.4	74	2.0	238	6.4	527	14.1	793	21.2	1831	49.0
		85	5.9	47	1.3	148	4.0	335	9.0	497	13.3	1186	31.7
125	8.6	up to 43	up to 3.0	97	2.6	316	8.5	689	18.5	1045	28.0	2372	63.5
		50	3.4	95	2.6	309	8.3	676	18.1	1023	27.4	2336	62.5
		75	5.2	85	2.3	272	7.3	605	16.2	906	24.3	2112	56.5
		110	7.6	52	1.4	165	4.4	374	10.0	554	14.8	1325	35.5
150	10.3	up to 52	up to 3.6	115	3.1	373	10.0	814	21.8	1237	33.1	2802	75.0
		75	5.2	108	2.9	347	9.3	766	20.5	1154	30.9	2658	71.2
		95	6.6	98	2.6	313	8.4	697	18.7	1043	28.0	2438	65.3
		130	9.0	65	1.7	206	5.5	466	12.5	690	18.5	1649	44.1
200	13.8	up to 73	up to 5.0	150	4.0	486	13.0	1061	28.4	1611	43.2	3649	97.7
		100	6.9	141	3.8	456	12.2	1005	26.9	1514	40.6	3484	93.3
		125	8.7	130	3.5	414	11.1	922	24.7	1382	37.0	3222	86.3
		185	12.8	66	1.8	208	5.6	472	12.7	698	18.7	1675	44.8
300	20.7	up to 115	up to 7.9	219	5.9	712	19.1	1554	41.6	2358	63.2	5344	143
		150	10.3	209	5.6	673	18.0	1482	39.7	2236	59.9	5135	138
		200	13.8	184	4.9	587	15.7	1310	35.1	1960	52.5	4585	123
		275	19.0	103	2.7	323	8.7	735	19.7	1087	29.1	2606	69.8
400	27.6	up to 155	up to 10.7	290	7.8	940	25.2	2050	54.9	3112	83.4	7048	189
		200	13.8	276	7.4	890	23.8	1959	52.5	2956	79.2	6784	182
		250	17.2	253	6.8	811	21.7	1803	48.3	2703	72.5	6291	169
		300	20.7	219	5.9	696	18.6	1562	41.9	2328	62.4	5489	147
500	34.5	350	24.1	163	4.4	517	13.8	1170	31.4	1734	46.5	4140	111
		up to 196	up to 13.5	359	9.6	1167	31.3	2545	68.2	3863	104	8748	234
		225	15.5	352	9.4	1137	30.5	2492	66.8	3771	101	8600	230
		300	20.7	322	8.6	1031	27.6	2289	61.3	3437	92.1	7971	214
600	41.4	400	27.6	249	6.7	790	21.2	1780	47.7	2647	70.9	6271	168
		up to 237	up to 16.3	429	11.5	1393	37.3	3040	81.5	4614	124	10,447	280
		300	20.7	410	11.0	1324	35.5	2914	78.1	4398	118	10,083	270
		375	25.9	377	10.1	1207	32.3	2683	71.9	4024	108	9357	251
		450	31.0	326	8.7	1037	27.8	2326	62.3	3468	92.9	8172	219
		500	34.5	276	7.4	874	23.4	1975	52.9	2930	78.5	6971	187

North America Only

- continued -

Type FL

Table 5. Capacities for Type FL-SR/SRS with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio (continued)

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS									
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
700	48.3	up to 278	up to 19.2	499	13.4	1620	43.4	3534	94.7	5364	144	12,146	325
		300	20.7	494	13.2	1597	42.8	3497	93.7	5295	142	12,042	323
		350	24.1	478	12.8	1541	41.3	3391	90.9	5118	137	11,732	314
		400	27.6	457	12.3	1469	39.4	3253	87.2	4891	131	11,304	303
		550	37.9	357	9.6	1132	30.3	2550	68.3	3791	102	8976	240
		600	41.4	301	8.1	952	25.5	2153	57.7	3194	85.6	7608	204
800	55.2	up to 300	up to 20.7	574	15.4	1863	49.9	4058	109	6164	165	13,923	373
		350	24.1	561	15.0	1816	48.7	3975	107	6020	161	13,695	367
		400	27.6	545	14.6	1756	47.1	3868	104	5834	156	13,381	358
		450	31.0	525	14.1	1688	45.2	3733	100	5616	151	12,964	347
		500	34.5	501	13.4	1602	42.9	3564	95.5	5340	143	12,424	333
		650	44.8	386	10.3	1222	32.7	2757	73.9	4093	110	9717	260
900	62.1	up to 350	up to 24.1	641	17.2	2083	55.8	4539	122	6894	185	15,587	418
		400	27.6	628	16.8	2032	54.5	4453	119	6738	181	15,348	411
		500	34.5	593	15.9	1906	51.1	4212	113	6340	170	14,621	392
		600	41.4	541	14.5	1726	46.3	3852	103	5761	154	13,463	361
		800	55.2	345	9.3	1089	29.2	2472	66.2	3656	98.0	8747	234
		up to 350	up to 24.1	720	19.3	2344	62.8	5091	136	7749	208	17,434	467
1000	69.0	400	27.6	709	19.0	2300	61.6	5020	135	7615	204	17,249	462
		500	34.5	679	18.2	2192	58.7	4822	129	7280	195	16,679	447
		600	41.4	637	17.1	2042	54.7	4533	122	6803	182	15,779	423
		800	55.2	494	13.2	1566	42.0	3531	94.6	5245	141	12,435	333
		up to 350	up to 24.1	798	21.4	2602	69.7	5635	151	8593	230	19,251	516
1100	75.8	450	31.0	777	20.8	2518	67.5	5500	147	8339	224	18,908	507
		500	34.5	763	20.4	2468	66.1	5409	145	8185	219	18,651	500
		600	41.4	728	19.5	2339	62.7	5169	139	7779	209	17,930	480
		800	55.2	614	16.4	1952	52.3	4377	117	6526	175	15,351	411
		1000	69.0	385	10.3	1212	32.5	2754	73.8	4070	109	9757	261
1200	82.7	up to 350	up to 24.1	874	23.4	2857	76.6	6173	165	9428	253	21,047	564
		500	34.5	844	22.6	2737	73.4	5979	160	9068	243	20,566	551
		600	41.4	814	21.8	2624	70.3	5776	155	8714	234	19,977	535
		800	55.2	719	19.3	2296	61.5	5123	137	7661	205	17,902	480
		1100	75.8	403	10.8	1269	34.0	2885	77.3	4262	114	10,224	274
1300	89.6	up to 350	up to 24.1	951	25.5	3111	83.4	6706	180	10,257	275	22,828	612
		500	34.5	924	24.8	3002	80.5	6539	175	9935	266	22,441	601
		600	41.4	898	24.1	2900	77.7	6364	171	9621	258	21,953	588
		800	55.2	816	21.9	2614	70.1	5810	156	8712	234	20,238	542
		1160	80.0	490	13.1	1547	41.5	3511	94.1	5193	139	12,427	333
1400	96.5	up to 350	up to 24.1	1026	27.5	3363	90.1	7237	194	11,081	297	24,597	659
		500	34.5	1003	26.9	3263	87.5	7091	190	10,790	289	24,287	651
		600	41.4	979	26.2	3171	85.0	6938	186	10,509	282	23,878	640
		800	55.2	909	24.4	2917	78.2	6459	173	9707	260	22,437	601
		1160	80.0	647	17.3	2048	54.9	4628	124	6866	184	16,322	437
1480	102	up to 350	up to 24.1	1087	29.1	3564	95.5	7659	205	11,738	315	26,006	697
		500	34.5	1065	28.5	3470	93.0	7528	202	11,468	307	25,748	690
		600	41.4	1044	28.0	3384	90.7	7389	198	11,207	300	25,392	680
		800	55.2	980	26.3	3150	84.4	6958	187	10,476	281	24,125	646
		1160	80.0	753	20.2	2388	64.0	5377	144	7995	214	18,916	507

North America Only

Table 6. Capacities for Type FL-SRII with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS													
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body		NPS 8 / DN 200 Body		NPS 10 / DN 250 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
30	2.1	15	1.0	27	0.7	99	2.6	230	6.2	323	8.7	823	22.1	1274	34.1	2025	54.3
40	2.8	15	1.0	35	0.9	131	3.5	301	8.1	429	11.5	1087	29.1	1687	45.2	2719	72.9
		25	1.7	30	0.8	113	3.0	267	7.1	371	10.0	949	25.4	1465	39.3	2310	61.9
50	3.4	15	1.0	43	1.2	161	4.3	363	9.7	525	14.1	1322	35.4	2058	55.1	3350	89.8
		25	1.7	40	1.1	149	4.0	345	9.3	488	13.1	1240	33.2	1921	51.5	3066	82.2
		35	2.4	34	0.9	126	3.4	299	8.0	414	11.1	1061	28.4	1637	43.9	2565	68.7
60	4.1	16	up to 1.1	51	1.4	188	5.0	422	11.3	614	16.5	1542	41.3	2403	64.4	3935	105
		20	1.4	50	1.3	185	5.0	419	11.2	606	16.2	1526	40.9	2374	63.6	3859	103
		30	2.1	47	1.3	174	4.7	402	10.8	570	15.3	1446	38.7	2241	60.1	3581	96.0
		45	3.1	37	1.0	138	3.7	329	8.8	454	12.2	1163	31.2	1793	48.1	2798	75.0
75	5.2	22	up to 1.5	61	1.6	226	6.1	507	13.6	738	19.8	1854	49.7	2889	77.4	4728	127
		30	2.1	59	1.6	220	5.9	501	13.4	719	19.3	1816	48.7	2823	75.6	4565	122
		40	2.8	56	1.5	207	5.6	481	12.9	679	18.2	1725	46.2	2673	71.6	4263	114
100	6.9	60	4.1	41	1.1	154	4.1	369	9.9	507	13.6	1302	34.9	2005	53.7	3117	83.5
		32	up to 2.2	78	2.1	290	7.8	649	17.4	945	25.3	2373	63.6	3698	99.1	6049	162
		40	2.8	77	2.1	284	7.6	644	17.3	928	24.9	2339	62.7	3637	97.5	5895	158
		50	3.4	74	2.0	273	7.3	628	16.8	894	23.9	2264	60.7	3512	94.1	5629	151
125	8.6	85	5.9	48	1.3	178	4.8	428	11.5	586	15.7	1506	40.4	2318	62.1	3587	96.1
		43	up to 3.0	95	2.5	352	9.4	790	21.2	1150	30.8	2890	77.4	4502	121	7354	197
		50	3.4	94	2.5	348	9.3	786	21.1	1135	30.4	2861	76.7	4450	119	7221	194
		75	5.2	85	2.3	315	8.5	735	19.7	1034	27.7	2631	70.5	4073	109	6463	173
150	10.3	110	7.6	54	1.4	199	5.3	480	12.9	655	17.6	1687	45.2	2595	69.5	4003	107
		52	up to 3.6	112	3.0	416	11.2	933	25.0	1359	36.4	3412	91.5	5318	143	8692	233
		75	5.2	107	2.9	396	10.6	909	24.4	1297	34.8	3283	88.0	5095	137	8179	219
		95	6.6	98	2.6	364	9.8	852	22.8	1195	32.0	3044	81.6	4710	126	7450	200
200	13.8	130	9.0	67	1.8	248	6.6	597	16.0	815	21.8	2097	56.2	3227	86.5	4985	134
		73	up to 5.0	146	3.9	543	14.5	1216	32.6	1771	47.5	4448	119	6931	186	11,318	303
		100	6.9	140	3.8	520	13.9	1190	31.9	1700	45.6	4300	115	6676	179	10,726	287
		125	8.6	130	3.5	482	12.9	1124	30.1	1580	42.3	4020	108	6222	167	9856	264
300	20.7	185	12.8	68	1.8	252	6.7	611	16.4	830	22.2	2140	57.3	3289	88.2	5052	135
		115	up to 7.9	215	5.7	795	21.3	1783	47.8	2595	69.5	6520	175	10,158	272	16,570	444
		150	10.3	207	5.5	766	20.5	1751	46.9	2505	67.1	6333	170	9835	264	15,815	424
		200	13.8	185	5.0	686	18.4	1608	43.1	2251	60.3	5738	154	8873	238	13,998	375
400	27.6	275	19.0	105	2.8	392	10.5	949	25.4	1290	34.6	3326	89.2	5115	137	7861	211
		155	up to 10.7	283	7.6	1049	28.1	2351	63.0	3422	91.7	8598	230	13,397	359	21,856	586
		200	13.8	273	7.3	1012	27.1	2311	61.9	3309	88.7	8365	224	12,993	348	20,902	560
		250	17.2	254	6.8	941	25.2	2190	58.7	3084	82.6	7844	210	12,143	325	19,251	516
500	34.5	300	20.7	222	5.9	823	22.1	1950	52.3	2703	72.4	6916	185	10,675	286	16,690	447
		350	24.1	167	4.5	622	16.7	1499	40.2	2048	54.9	5269	141	8108	217	12,513	335
		196	up to 13.5	351	9.4	1302	34.9	2919	78.2	4248	114	10,673	286	16,629	446	27,125	727
		225	15.5	346	9.3	1282	34.3	2901	77.8	4187	112	10,552	283	16,414	440	26,576	712
600	41.4	300	20.7	321	8.6	1191	31.9	2763	74.0	3904	105	9917	266	15,364	412	24,431	655
		400	27.6	253	6.8	941	25.2	2245	60.2	3094	82.9	7934	213	12,232	328	19,025	510
		237	up to 16.3	420	11.2	1555	41.7	3486	93.4	5074	136	12,748	342	19,862	532	32,394	868
		300	20.7	406	10.9	1504	40.3	3432	92.0	4919	132	12,429	333	19,307	517	31,074	833
600	41.4	375	25.9	377	10.1	1399	37.5	3256	87.3	4587	123	11,666	313	18,063	484	28,643	768
		450	31.0	330	8.8	1225	32.8	2903	77.8	4024	108	10,296	276	15,892	426	24,852	666
		500	34.5	282	7.6	1046	28.0	2508	67.2	3443	92.3	8842	237	13,622	365	21,113	566

North America Only

- continued -

Type FL

Table 6. Capacities for Type FL-SR11 with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio (continued)

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS													
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body		NPS 8 / DN 200 Body		NPS 10 / DN 250 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
700	48.3	278	up to 19.2	488	13.1	1808	48.5	4054	109	5900	158	14,823	397	23,095	619	37,663	1009
		300	20.7	484	13.0	1794	48.1	4043	108	5857	157	14,741	395	22,947	615	37,269	999
		350	24.1	472	12.6	1750	46.9	3993	107	5723	153	14,460	388	22,464	602	36,160	969
		400	27.6	455	12.2	1689	45.3	3897	104	5530	148	14,025	376	21,746	583	34,704	930
		550	37.9	363	9.7	1346	36.1	3206	85.9	4426	119	11,342	304	17,492	469	27,249	730
		600	41.4	308	8.2	1143	30.6	2747	73.6	3761	101	9669	259	14,887	399	23,017	617
800	55.2	up to 300	up to 20.7	559	15.0	2072	55.5	4625	124	6756	181	16,951	454	26,429	708	43,232	1159
		350	24.1	550	14.8	2041	54.7	4606	123	6664	179	16,778	450	26,112	700	42,368	1135
		400	27.6	538	14.4	1996	53.5	4553	122	6527	175	16,492	442	25,621	687	41,246	1105
		450	31.0	522	14.0	1936	51.9	4461	120	6340	170	16,070	431	24,924	668	39,821	1067
		500	34.5	501	13.4	1858	49.8	4322	116	6091	163	15,488	415	23,981	643	38,034	1019
		650	44.8	393	10.5	1458	39.1	3485	93.4	4796	129	12,305	330	18,966	508	29,461	790
900	62.1	350	up to 24.1	626	16.8	2320	62.2	5191	139	7568	203	19,003	509	29,617	794	48,363	1296
		400	27.6	617	16.5	2287	61.3	5167	139	7470	200	18,815	504	29,276	785	47,464	1272
		500	34.5	589	15.8	2184	58.5	5024	135	7148	192	18,112	485	28,096	753	44,930	1204
		600	41.4	543	14.6	2015	54.0	4716	126	6610	177	16,844	451	26,053	698	41,124	1102
		800	55.2	354	9.5	1314	35.2	3174	85.1	4329	116	11,145	299	17,147	460	26,424	708
1000	69.0	350	up to 24.1	700	18.8	2593	69.5	5760	154	8451	227	21,169	567	33,033	885	54,226	1453
		400	27.6	693	18.6	2568	68.8	5757	154	8379	225	21,051	564	32,799	879	53,486	1433
		500	34.5	671	18.0	2488	66.7	5674	152	8136	218	20,554	551	31,934	856	51,417	1378
		600	41.4	636	17.0	2359	63.2	5465	147	7728	207	19,626	526	30,409	815	48,373	1296
		800	55.2	503	13.5	1866	50.0	4451	119	6135	164	15,731	422	24,254	650	37,726	1011
1100	75.8	350	up to 24.1	772	20.7	2861	76.7	6318	169	9318	250	23,296	624	36,389	975	59,999	1608
		450	31.0	760	20.4	2816	75.5	6321	169	9189	246	23,096	619	35,977	964	58,603	1571
		500	34.5	750	20.1	2780	74.5	6290	169	9081	243	22,884	613	35,600	954	57,650	1545
		600	41.4	722	19.3	2678	71.8	6150	165	8763	235	22,190	595	34,432	923	55,134	1478
		800	55.2	620	16.6	2300	61.6	5431	146	7554	203	19,305	517	29,816	799	46,746	1253
		1000	69.0	395	10.6	1467	39.3	3551	95.2	4832	130	12,450	334	19,147	513	29,445	789
1200	82.7	350	up to 24.1	844	22.6	3126	83.8	6868	184	10,175	273	25,396	681	39,703	1064	65,709	1761
		500	34.5	826	22.1	3063	82.1	6885	185	9998	268	25,139	674	39,151	1049	63,715	1708
		600	41.4	804	21.5	2980	79.9	6794	182	9745	261	24,617	660	38,247	1025	61,587	1651
		800	55.2	722	19.4	2680	71.8	6270	168	8790	236	22,396	600	34,642	928	54,686	1466
		1100	75.8	414	11.1	1537	41.2	3725	99.8	5065	136	13,055	350	20,074	538	30,845	827
1300	89.6	350	up to 24.1	915	24.5	3389	90.8	7413	199	11,024	295	27,476	736	42,987	1152	71,374	1913
		500	34.5	901	24.2	3340	89.5	7464	200	10,894	292	27,342	733	42,623	1142	69,661	1867
		600	41.4	883	23.7	3273	87.7	7412	199	10,692	287	26,952	722	41,920	1124	67,832	1818
		800	55.2	816	21.9	3026	81.1	7027	188	9918	266	25,205	676	39,039	1046	61,996	1661
		1160	80.0	503	13.5	1868	50.1	4511	121	6151	165	15,837	424	24,366	653	37,534	1006
1400	96.5	350	up to 24.1	985	26.4	3650	97.8	7953	213	11,868	318	29,541	792	46,249	1240	77,005	2064
		500	34.5	975	26.1	3613	96.8	8033	215	11,776	316	29,506	791	46,037	1234	75,519	2024
		600	41.4	960	25.7	3557	95.3	8011	215	11,614	311	29,221	783	45,493	1219	73,928	1981
		800	55.2	904	24.2	3352	89.8	7730	207	10,977	294	27,832	746	43,159	1157	68,897	1846
		1160	80.0	660	17.7	2450	65.7	5868	157	8061	216	20,697	555	31,889	855	49,452	1325
1480	102	350	up to 24.1	1041	27.9	3858	103	8382	225	12,539	336	31,185	836	48,845	1309	81,490	2184
		500	34.5	1033	27.7	3828	103	8482	227	12,473	334	31,217	837	48,735	1306	80,159	2148
		600	41.4	1020	27.3	3781	101	8480	227	12,337	331	31,000	831	48,297	1294	78,724	2110
		800	55.2	971	26.0	3602	96.5	8265	222	11,788	316	29,841	800	46,313	1241	74,210	1989
		1160	80.0	764	20.5	2838	76.0	6753	181	9328	250	23,899	641	36,862	988	57,439	1539

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Table 7. Capacities for Type FL-SR11/SRS with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS											
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body		NPS 8 / DN 200 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
30	2.1	15	1.0	24	0.7	77	2.1	169	4.5	245	6.6	626	16.7	893	23.9
40	2.8	15	1.0	33	0.9	104	2.8	227	6.1	332	8.9	837	22.4	1213	32.5
		25	1.7	28	0.7	88	2.3	194	5.2	279	7.5	716	19.2	1014	27.2
50	3.4	15	1.0	41	1.1	129	3.5	278	7.5	412	11.0	1027	27.5	1508	40.4
		25	1.7	37	1.0	117	3.1	256	6.9	373	10.0	946	25.3	1361	36.5
		35	2.4	31	0.8	97	2.6	216	5.8	309	8.3	797	21.3	1123	30.1
60	4.1	up to 16	up to 1.1	48	1.3	152	4.1	326	8.7	485	13.0	1203	32.2	1780	47.7
		20	1.4	47	1.3	149	4.0	321	8.6	474	12.7	1183	31.7	1737	46.6
		30	2.1	43	1.2	137	3.7	299	8.0	437	11.7	1105	29.6	1592	42.7
		45	3.1	34	0.9	106	2.8	236	6.3	337	9.0	871	23.3	1223	32.8
75	5.2	up to 22	up to 1.5	58	1.5	183	4.9	392	10.5	584	15.6	1446	38.7	2141	57.4
		30	2.1	56	1.5	176	4.7	380	10.2	560	15.0	1402	37.5	2050	54.9
		40	2.8	52	1.4	163	4.4	357	9.6	520	13.9	1316	35.2	1895	50.8
		60	4.1	37	1.0	118	3.2	263	7.1	375	10.1	971	26.0	1359	36.4
100	6.9	up to 32	up to 2.2	74	2.0	235	6.3	502	13.5	747	20.0	1850	49.5	2742	73.5
		40	2.8	72	1.9	228	6.1	491	13.2	725	19.4	1809	48.4	2654	71.1
		50	3.4	68	1.8	216	5.8	471	12.6	689	18.5	1734	46.4	2514	67.4
		85	5.9	43	1.2	135	3.6	303	8.1	431	11.6	1119	29.9	1560	41.8
125	8.6	up to 43	up to 3.0	90	2.4	285	7.6	611	16.4	909	24.4	2250	60.2	3333	89.3
		50	3.4	88	2.4	279	7.5	602	16.1	889	23.8	2214	59.3	3257	87.3
		75	5.2	78	2.1	247	6.6	542	14.5	787	21.1	1998	53.5	2867	76.8
		110	7.6	48	1.3	151	4.0	339	9.1	481	12.9	1250	33.5	1739	46.6
150	10.3	up to 52	up to 3.6	106	2.9	338	9.0	723	19.4	1075	28.8	2658	71.2	3944	106
		75	5.2	99	2.7	315	8.4	684	18.3	1003	26.9	2518	67.4	3662	98.1
		95	6.6	90	2.4	284	7.6	626	16.8	906	24.3	2306	61.7	3299	88.4
		130	9.0	60	1.6	188	5.0	422	11.3	599	16.1	1556	41.7	2168	58.1
200	13.8	up to 73	up to 5.0	139	3.7	440	11.8	941	25.2	1400	37.5	3462	92.7	5136	138
		100	6.9	131	3.5	413	11.1	897	24.0	1316	35.3	3300	88.4	4809	129
		125	8.6	119	3.2	377	10.1	828	22.2	1201	32.2	3048	81.6	4372	117
		185	12.8	60	1.6	190	5.1	429	11.5	606	16.2	1580	42.3	2189	58.7
300	20.7	up to 115	up to 7.9	203	5.4	644	17.3	1379	37.0	2050	55.0	5069	136	7520	202
		150	10.3	193	5.2	610	16.3	1322	35.4	1943	52.1	4864	130	7101	190
		200	13.8	169	4.5	534	14.3	1178	31.6	1703	45.6	4336	116	6195	166
		275	19.0	94	2.5	295	7.9	667	17.9	943	25.3	2458	65.8	3409	91.4
400	27.6	up to 155	up to 10.7	268	7.2	850	22.8	1819	48.8	2706	72.5	6686	179	9924	266
		200	13.8	255	6.8	806	21.6	1748	46.8	2569	68.9	6427	172	9392	252
		250	17.2	233	6.3	737	19.7	1617	43.3	2348	62.9	5952	159	8554	229
		300	20.7	201	5.4	634	17.0	1409	37.8	2021	54.2	5186	139	7338	197
		350	24.1	150	4.0	472	12.6	1061	28.4	1505	40.3	3907	105	5446	146
500	34.5	up to 196	up to 13.5	332	8.9	1055	28.3	2258	60.5	3358	90.0	8298	222	12,317	330
		225	15.5	325	8.7	1029	27.6	2218	59.4	3278	87.9	8152	218	12,002	322
		300	20.7	297	7.9	937	25.1	2051	55.0	2985	80.0	7544	202	10,884	292
		400	27.6	229	6.1	720	19.3	1608	43.1	2298	61.6	5923	159	8333	223
600	41.4	up to 237	up to 16.3	397	10.6	1260	33.8	2697	72.3	4011	108	9910	265	14,711	394
		300	20.7	379	10.2	1200	32.1	2599	69.6	3822	102	9553	256	13,973	375
		375	25.9	347	9.3	1097	29.4	2407	64.5	3496	93.7	8854	237	12,735	341
		450	31.0	300	8.0	944	25.3	2098	56.2	3011	80.7	7722	207	10,932	293
		500	34.5	254	6.8	798	21.4	1787	47.9	2546	68.2	6582	176	9223	247

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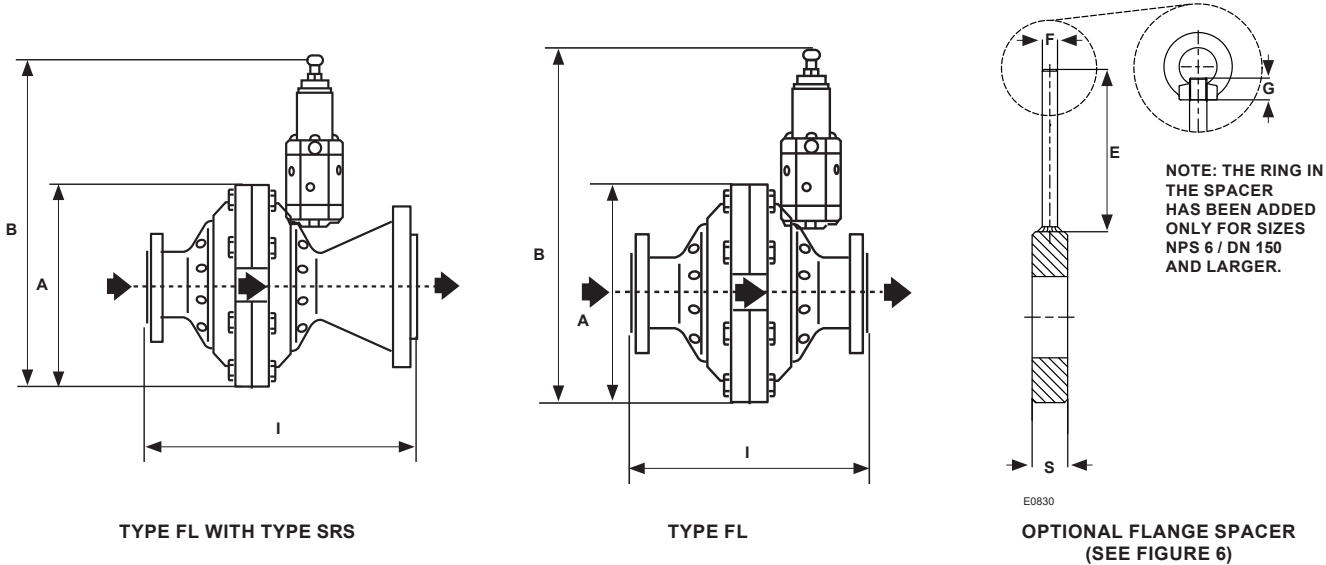
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Type FL

Table 7. Capacities for Type FL-SRII/SRS with PRX Series Pilot and Type SA/2 Pilot Supply Filter Regulator with 1:1 Line Size to Body Size Ratio (continued)

INLET PRESSURE		OUTLET PRESSURE		CAPACITIES IN THOUSANDS OF SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS											
psig	bar	psig	bar	NPS 1 / DN 25 Body		NPS 2 / DN 50 Body		NPS 3 / DN 80 Body		NPS 4 / DN 100 Body		NPS 6 / DN 150 Body		NPS 8 / DN 200 Body	
				SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h	SCFH	Nm ³ /h
700	48.3	up to 278	up to 19.2	462	12.4	1465	39.3	3136	84.1	4664	125	11,522	309	17,105	458
		300	20.7	456	12.2	1446	38.8	3108	83.3	4606	123	11,418	306	16,875	452
		350	24.1	441	11.8	1396	37.4	3024	81.0	4448	119	11,115	298	16,263	436
		400	27.6	422	11.3	1333	35.7	2910	78.0	4250	114	10,702	287	15,507	416
		550	37.9	328	8.8	1033	27.7	2303	61.7	3295	88.3	8479	227	11,952	320
		600	41.4	277	7.4	869	23.3	1950	52.3	2772	74.3	7182	192	10,036	269
800	55.2	up to 300	up to 20.7	530	14.2	1684	45.1	3597	96.4	5362	144	13,210	354	19,681	528
		400	27.6	503	13.5	1593	42.7	3449	92.4	5074	136	12,985	348	18,554	497
		350	24.1	518	13.9	1643	44.0	3534	94.7	5233	140	12,678	340	19,171	514
		450	31.0	484	13.0	1531	41.0	3338	89.5	4880	131	12,274	329	17,810	477
		500	34.5	461	12.4	1456	39.0	3196	85.6	4643	124	11,756	315	16,916	453
		650	44.8	355	9.5	1115	29.9	2492	66.8	3557	95.3	9177	246	12,894	346
900	62.1	up to 350	up to 24.1	593	15.9	1883	50.5	4026	108	5994	161	14,787	396	21,991	589
		400	27.6	580	15.6	1840	49.3	3960	106	5861	157	14,551	390	21,466	575
		500	34.5	547	14.7	1729	46.3	3765	101	5508	148	13,844	371	20,110	539
		600	41.4	498	13.3	1571	42.1	3461	92.8	5008	134	12,733	341	18,225	488
		800	55.2	317	8.5	995	26.7	2241	60.1	3177	85.1	8255	221	11,494	308
1000	69.0	up to 350	up to 24.1	666	17.9	2117	56.7	4507	121	6739	181	16,547	443	24,755	663
		400	27.6	656	17.6	2080	55.8	4455	119	6624	178	16,362	438	24,297	651
		500	34.5	627	16.8	1986	53.2	4300	115	6326	170	15,803	423	23,134	620
		600	41.4	588	15.7	1856	49.7	4061	109	5915	159	14,934	400	21,566	578
		800	55.2	454	12.2	1429	38.3	3190	85.5	4559	122	11,745	315	16,531	443
1100	75.8	up to 350	up to 24.1	738	19.8	2348	62.9	4980	134	7473	200	18,279	490	27,481	737
		450	31.0	718	19.2	2278	61.1	4883	131	7254	194	17,934	480	26,600	713
		500	34.5	705	18.9	2234	59.9	4812	129	7115	191	17,681	474	26,053	698
		600	41.4	671	18.0	2123	56.9	4619	124	6765	181	16,980	455	24,705	662
		800	55.2	565	15.1	1779	47.7	3943	106	5673	152	14,510	389	20,610	552
		1000	69.0	353	9.5	1108	29.7	2499	67.0	3536	94.8	9206	247	12,788	343
1200	82.7	up to 350	up to 24.1	810	21.7	2577	69.1	5447	146	8201	220	19,991	536	30,182	809
		500	34.5	780	20.9	2476	66.4	5310	142	7884	211	19,505	523	28,902	775
		600	41.4	751	20.1	2379	63.8	5150	138	7579	203	18,928	507	27,715	743
		800	55.2	662	17.8	2089	56.0	4602	123	6660	179	16,931	454	24,239	650
		1100	75.8	370	9.9	1160	31.1	2619	70.2	3703	99.2	9647	258	13,388	359
1300	89.6	up to 350	up to 24.1	881	23.6	2804	75.2	5911	158	8922	239	21,689	581	32,863	881
		500	34.5	855	22.9	2713	72.7	5798	155	8638	232	21,292	570	31,701	850
		600	41.4	829	22.2	2627	70.4	5664	152	8369	224	20,809	557	30,638	821
		800	55.2	753	20.2	2376	63.7	5208	140	7574	203	19,152	513	27,606	740
		1160	80.0	450	12.1	1414	37.9	3184	85.3	4512	121	11,728	314	16,324	438
1400	96.5	up to 350	up to 24.1	951	25.5	3030	81.2	6372	171	9640	258	23,376	626	35,530	952
		500	34.5	928	24.9	2948	79.0	6278	168	9383	252	23,051	618	34,463	924
		600	41.4	905	24.3	2870	76.9	6164	165	9141	245	22,643	607	33,500	898
		800	55.2	838	22.5	2649	71.0	5778	155	8441	226	21,242	569	30,803	826
		1160	80.0	595	15.9	1870	50.1	4186	112	5967	160	15,413	413	21,620	579
1480	102	up to 350	up to 24.1	1007	27.0	3210	86.0	6739	181	10,212	274	24,719	662	37,655	1009
		500	34.5	986	26.4	3133	84.0	6658	178	9973	267	24,443	655	36,653	982
		600	41.4	965	25.9	3062	82.1	6558	176	9750	261	24,085	645	35,756	958
		800	55.2	904	24.2	2859	76.6	6216	167	9110	244	22,848	612	33,274	892
		1160	80.0	692	18.6	2178	58.4	4854	130	6948	186	17,870	479	25,207	676

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E0826

Figure 7. Dimensions

Table 8. Dimensions

BODY SIZE NPS / DN	DIMENSIONS, IN. / mm							APPROXIMATE WEIGHTS, LBS / kg
	(Face-to-Face / I) CL300 to CL600	A	B	E	F	G	S	With Types SR and SRII
1 / 25	8.3 / 211	8.9 / 225	17.1 / 430	4.7 / 120	0.39 / 10	----	1.18 / 30	68 / 31
2 / 50	11.3 / 286	11.3 / 287	19.5 / 490	4.7 / 120	0.39 / 10	----	1.97 / 50	132 / 60
3 / 80	13.3 / 337	15.7 / 400	23.4 / 590	4.7 / 120	0.39 / 10	----	2.36 / 60	326 / 148
4 / 100	15.5 / 394	18.9 / 480	26.8 / 680	4.7 / 120	0.39 / 10	----	2.36 / 60	443 / 201
6 / 150	20.0 / 508	24.0 / 610	33.9 / 860	4.7 / 120	0.39 / 10	0.47 / 12	5.75 / 146	1058 / 480
8 / 200	CL300	25.7 / 653	39.5 / 1000	4.7 / 120	0.39 / 10	0.47 / 12	3.93 / 100	1367 / 620
	CL600							
10 / 250	CL300	30.9 / 785	43.3 / 1100	4.7 / 120	0.39 / 10	0.47 / 12	3.93 / 100	2623 / 1190
	CL600							
BODY SIZE NPS / DN	(Face-to-Face / I) CL300 to CL600	A	B	E	F	G	S	With Type SRS
1 x 4 / 25 x 100	11.9 / 300	8.9 / 225	17.1 / 430	4.7 / 120	0.39 / 10	----	2.36 / 60	99 / 45
2 x 6 / 50 x 150	15.7 / 400	11.3 / 287	19.5 / 490	4.7 / 120	0.39 / 10	0.47 / 12	3.15 / 80	192 / 87
3 x 10 / 80 x 250	19.7 / 500	15.7 / 400	23.4 / 590	4.7 / 120	0.39 / 10	0.47 / 12	3.93 / 100	514 / 233
4 x 10 / 100 x 250	20.7 / 525	18.9 / 480	26.8 / 680	4.7 / 120	0.39 / 10	0.47 / 12	3.93 / 100	631 / 286
6 x 12 / 150 x 300	26.0 / 660	24.0 / 610	33.9 / 860	4.7 / 120	0.39 / 10	----	5.75 / 146	1367 / 620
8 x 16 / 200 x 400	CL300	25.7 / 653	39.5 / 1000	4.7 / 120	0.39 / 10	----	Consult Factory	1984 / 900
	CL600							

North America Only

Type FL

Capacity Information

Note

Type FL flow capacities are laboratory verified; therefore, they may be sized for 100% flow using published capacities as shown. It is not necessary to reduce published capacities.

Tables 3 and 4 show the natural gas regulating capacities of the Type FL regulator at selected inlet pressures and outlet pressure settings. Flows are in thousands of SCFH at 60°F and 14.7 psia (and in thousands of Nm³/h at 0°C and 1.01325 bar) of 0.6 specific gravity natural gas.

To find approximate regulating capacities or to find wide-open flow capacities for relief sizing at any inlet pressure, perform one of the following procedures. Then, if necessary, convert using the factors provided below.

For critical pressure drops (absolute outlet pressure equal to or less than one-half of absolute inlet pressure), use the following formula:

$$Q = (P_1)(C_g)(1.29)$$

For pressure drops lower than critical (absolute outlet pressure greater than one-half of absolute inlet pressure).

$$Q = \sqrt{\frac{520}{GT}} C_g P_1 \sin \left(\frac{3417}{C_1} \sqrt{\frac{\Delta P}{P_1}} \right) \text{ DEG}$$

where,

Q = gas flow rate, SCFH

P₁ = absolute inlet pressure, psia (P₁ gauge + 14.7)

C_g = regulating or wide-open gas sizing coefficient from the Specifications section and Table 2

G = gas specific gravity of the gas

T = absolute temperature of gas at inlet, °Rankine

C₁ = flow coefficient

ΔP = pressure drop across the regulator, psi

To determine equivalent capacities for air, propane, butane or nitrogen, multiply the capacity by the following appropriate conversion factor: 0.775 for air, 0.625 for propane, 0.547 for butane or 0.789 for nitrogen. For gases of other specific gravities, multiply the given capacity by 0.775 and divide by the square root of the appropriate specific gravity.

Then, if capacity is desired in normal cubic meters per hour at 0°C and 1.01325 bar, multiply SCFH by 0.0268.

When sizing a working monitor setup, size each regulator separately using either the capacity tables or the equation method. When sizing a wide-open monitor setup, first use the equation method, solving for the pressure drop across the monitor at the maximum flow condition. Next size the worker using either the capacity tables or equation method while taking into account the monitor's maximum pressure drop.

Ordering Information

Carefully review each specification in the Specifications section, then complete the Specification Worksheet on page 24. If a pilot setpoint is not requested, the regulator will be set at the approximate midrange.

Ordering Guide

Body Size (Select One)

Types FL, FL-SR and FL-SRII

(Same Inlet and Outlet Size)

- NPS 1 / DN 25**
- NPS 2 / DN 50**
- NPS 3 / DN 80**
- NPS 4 / DN 100**
- NPS 6 / DN 150**
- NPS 8 / DN 200**
- NPS 10 / DN 250**

Types FL-SR/SRS and FL-SRII/SRS

(Different Inlet and Outlet Size)

- NPS 1 x 4 / DN 25 x 100**
- NPS 2 x 6 / DN 50 x 150**
- NPS 3 x 10 / DN 80 x 250**
- NPS 4 x 10 / DN 100 x 250**
- NPS 6 x 12 / DN 150 x 300**
- NPS 8 x 16 / DN 200 x 400**

End Connection Style (Select One)

- CL300 RF**
- CL600 RF**

O-ring Material (Select One)

- Nitrile (NBR)**
- Fluorocarbon (FKM)**

Disk Material

- Nitrile (NBR) (standard)***
- Fluorocarbon (FKM)**
- Polyurethane (PU)**

Pilot Type (Select One)

- PRX/120**
- PRX-AP/120**
- PRX/125** (monitor override pilot)
- PRX-AP/125** (monitor override pilot)
- PRX/131**
- PRX-AP/131**

Outlet Flange Spacer (Optional)

- Yes**
- No

Silencer (Optional)

- Type SR**
- Type SR/SRS**
- Type SRII**
- Type SRII/SRS**

Outlet Pressure Range (Select One)

Type PRX-120/125/131

- 14.5 to 26 psig / 1.00 to 1.8 bar, Yellow**
- 23 to 44 psig / 1.6 to 3.0 bar, Green**
- 41 to 80 psig / 2.8 to 5.5 bar, Blue**
- 73 to 123 psig / 5.0 to 8.5 bar, Black**
- 116 to 210 psig / 8.0 to 14.5 bar, Silver**
- 203 to 334 psig / 14.0 to 23.0 bar, Gold***
- 319 to 435 psig / 22.0 to 30.0 bar, Aluminum***

Type PRX-AP/120/125/131

- 435 to 1160 psig / 30.0 to 80.0 bar, Clear**

Main Valve Mounting Position

- Horizontal
- Vertical

Pilot Diaphragm (Select One)

- Nitrile (NBR) (standard)***
- Fluorocarbon (FKM)**

Pilot Disk (Select One)

- Polyurethane (PU) (standard)**
- Fluorocarbon (FKM)**

Type SA/2 O-ring and Diaphragm Material

- Nitrile (NBR) (standard)**
- Fluorocarbon (FKM)**

Main Valve Replacement Parts Kit (Optional)

- Yes, send one replacement parts kit to match this order.

Main Valve Replacement Commission Kit (Optional)

- Yes, send one commission kit to match this order.

Pilot Valve Replacement Parts Kit (Optional)

- Yes, send one replacement parts kit to match this order.

Ordering Guide (continued)

Regulators Quick Order Guide	
***	Readily Available for Shipment
**	Allow Additional Time for Shipment
*	Special Order, Constructed from Non-Stocked Parts. Consult your Sales Representative for Availability.
Availability of the product being ordered is determined by the component with the longest shipping time for the requested construction.	

Specification Worksheet

Application:
 Specific Use _____
 Line Size _____
 Fluid Type _____
 Specific Gravity _____
 Temperature _____
 Does the Application Require Overpressure Protection?
 Yes No

Pressure:
 Maximum Inlet Pressure _____
 Minimum Inlet Pressure _____
 Differential Pressure _____
 Set Pressure _____
 Maximum Flow _____

Accuracy Requirements:
 Less Than or Equal To:
 5% 10% 20% 40%

Construction Material Requirements (if known):

✉ Webadmin.Regulators@emerson.com

🔍 Tartarini-NaturalGas.com

📘 Facebook.com/EmersonAutomationSolutions

🌐 LinkedIn.com/company/emerson-automation-solutions

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