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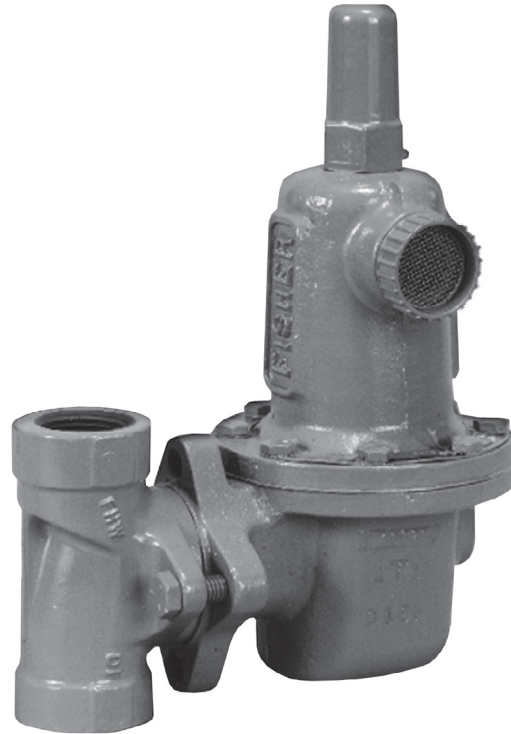
627 Series Pressure Reducing Regulators

Introduction

The 627 Series direct-operated pressure reducing regulators (Figure 1) are for low and high-pressure systems. These regulators can be used with natural gas, air or a variety of other gases. Performance characteristics vary according to construction (see the Specifications section).

Features

- **Internal Relief Valve**—Types 627R, 627LR, 627MR and 627BMR regulators have an internal relief valve, which in many cases eliminates the usual requirement for an external relief valve, thereby reducing equipment and maintenance costs. Refer to the Specifications section for performance data.
- **Types 627R, 627LR, 627MR and 627BMR Travel Stop**—The internal relief valve still works if the disk or linkage fails. The pusher post (Figure 10) contacts the travel stop of the lever retainer and, as the diaphragm continues to rise, it opens the relief valve.
- **Relief Operation Indicator**—A rubber cap (Figure 11) slipped on the vent assembly pops off when the relief valve opens, indicating the relief valve has opened since the last inspection.
- **Easy to Maintain**—Trim parts can be replaced without removing the regulator body from the pipeline. A two-bolt connection between the body and diaphragm casing simplifies disassembly for maintenance.
- **Installation Adaptability**—The diaphragm case and/or regulator body can be rotated in any of four positions to allow regulator installation in locations with limited space (Figure 12). The regulator may be installed in any position without affecting operation as long as the spring case vent is protected from the elements.
- **Application Versatility**—The different 627 Series constructions can be used as farm tap regulators, regulator-relief valves, monitoring regulators, slam-shut regulators or high-pressure industrial regulators.
- **Extended Body Option**—The Type 627 Long Body is available with same face-to-face dimensions as the Type 630 with threaded NPT end connections.



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Figure 1. Typical Type 627 Direct-Operated Pressure Reducing Regulator

- **Tamper-Resistant**—An adjusting screw locknut and protective cap (Figure 2) is standard on all 627 Series regulators to discourage tampering with the pressure setting.
- **Wide Range of Flow Capabilities**—A selection of body sizes and orifice sizes is available to satisfy various flow requirements.
- **Balanced Trim Option**—The Type 627BM has a balanced trim design to enhance flow rates and inlet pressure ratings.
- **Tight Shutoff Capability**—A flat-faced disk of Nitrile (NBR), Nylon (PA) or Fluorocarbon (FKM) provides excellent shut-off capability.

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Specifications

The Specifications section gives some general specifications for the 627 Series regulators. The nameplates give detailed information for a particular regulator as it comes from the factory.

Available Constructions

Type 627: Direct-operated pressure reducing regulator equipped with a pitot tube for greater regulated capacities (Figure 2).

Type 627R: Type 627 with internal relief and open throat (Figure 4).

Type 627LR: Type 627R with light rate relief spring (Figure 4).

Type 627M: Type 627 with a stem seal between the body outlet pressure and diaphragm case. Pressure is measured under the diaphragm through the 1/4 NPT downstream control line connection (Figure 2).

Type 627BM: Direct-operated pressure reducing regulator with a balanced port and a stem seal between the body outlet pressure and diaphragm case. Pressure is measured under the diaphragm through the 1/4 NPT downstream control line connection (Figure 3).

Type 627MR: Type 627M with internal relief (Figure 5).

Type 627BMR: Type 627BM with internal relief (Figure 6).

Type 627H: Type 627 with a diaphragm limiter to deliver a higher outlet pressure (Figure 7).

Type 627HM: Type 627H with a stem seal between the body outlet pressure and diaphragm case. Pressure is measured under the diaphragm through the 1/4 NPT downstream control line connection (Figure 7).

Type 627BHM: Type 627BH with a stem seal between the body outlet pressure and diaphragm case. Pressure if measured under the diaphragm through 1/4 NPT downstream control line (Figure 8).

Type 627OSX: Type 627 with Type OSE slam-shut device for overpressure protection. Available with Over and Under Pressure Trip points (Figure 9).

Body Sizes and End Connection Styles

| BODY SIZE | | END CONNECTION STYLE | CONSTRUCTION AVAILABLE |
|-----------|------|-----------------------------------|---|
| NPS | DN | | |
| 3/4 | ---- | NPT | Types 627, 627R, 627LR, 627M, 627MR, 627H and 627HM |
| 1 | 25 | NPT, CL150 RF, CL300 RF, CL600 RF | All |
| | | Long Body | Types 627, 627R, 627LR, 627M, 627MR, 627H and 627HM |
| 1-1/4 | 32 | NPT | Types 627, 627R, 627LR, 627M, 627MR, 627H and 627HM |
| 2 | 50 | NPT, CL150 RF, CL300 RF, CL600 RF | All |
| | | Long Body | Types 627, 627R, 627LR, 627M, 627MR, 627H and 627HM |

Maximum Inlet Pressure⁽¹⁾ (Body Rating)

NPT Stainless steel: 2000 psig / 138 bar

Flanged Stainless steel: 1440 psig / 99.3 bar

NPT Steel: 2000 psig / 138 bar

Flanged Steel: 1500 psig / 103 bar

NPT Steel (Type 627OSX): 1500 psig / 138 bar

Ductile iron: 1000 psig / 69.0 bar

Maximum Valve Disk Inlet Pressure Rating⁽¹⁾

Nylon (PA) Disk: 2000 psig / 138 bar

Nitrile (NBR) Disk: 1000 psig / 69.0 bar

Fluorocarbon (FKM) Disk: 300 psig / 20.7 bar

Maximum Operating Inlet and Outlet Pressure Ranges⁽¹⁾

See Table 3 for pressures by orifice size and spring range

Maximum Spring and Diaphragm Casing Pressure⁽¹⁾

See Table 2

Maximum Body Outlet Pressure⁽¹⁾⁽²⁾

Types 627M, 627BM, 627MR, 627BMR, 627HM and 627BHM only

NPT Steel: 2000 psig / 138 bar

Flanged Steel: 1500 psig / 103 bar

Ductile iron: 1000 psig / 69.0 bar

Type 627OSX

NPT Steel: 1500 psig / 103 bar

Orifice Sizes

See Table 3

Internal Relief Performance

Type 627R: See Table 4 and Figure 13

Type 627LR: See Table 5

Types 627MR and 627BMR: Limited by field-installed control line piping

Regulator Capacities

Type 627, 627M, 627MR, 627BM, 627BMR or 627OSX: See Tables 6 to 10

Type 627H, 627HM, 627BHM or 627OSX: See Tables 11 to 13

Type 627R: See Tables 14 to 15

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

2. Types 627, 627H, 627R and 627LR are limited by maximum diaphragm casing pressure.

- continued -

Specifications (continued)

Flow Coefficients (continued)

See Table 16

IEC Sizing Coefficients

See Table 17

Construction Materials

Body: Ductile iron, WCC steel, Stainless steel

Spring Case and Diaphragm Case: WCC steel, Stainless steel, ductile iron or die cast aluminum

Construction Materials

Orifice: Aluminum (standard) or Stainless steel

Disk Holder with Valve Disk:

2000 psig / 138 bar Maximum Pressure:

Aluminum or Stainless steel with Nylon (PA)

1000 psig / 69.0 bar Maximum Pressure:

Aluminum (standard) or Stainless steel with Nitrile (NBR)

300 psig / 20.7 bar Maximum Pressure: Stainless steel or Aluminum with Fluorocarbon (FKM) disk

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

Diaphragm:

Types 627H and 627HM: Neoprene (CR)

All Others: Nitrile (NBR) or Fluorocarbon (FKM)

Relief Indicator

For Types 627R, 627LR, 627MR and 627BMR (see Figure 11)

Elastomer Temperature Capabilities⁽¹⁾⁽²⁾

| MATERIAL | DISK/ DIAPHRAGM | TEMPERATURE | |
|--|--------------------|-------------|-----------|
| | | °F | °C |
| Nitrile (NBR) | Disk | -40 to 180 | -40 to 82 |
| | Diaphragm | | |
| Fluorocarbon (FKM) | Disk | 0 to 180 | -18 to 82 |
| | Diaphragm | | |
| Nylon (PA) | Disk | -40 to 180 | -40 to 82 |
| Neoprene (CR) for Types 627H, 627HM and 627BHM only | Diaphragm | -40 to 180 | -40 to 82 |
| Neoprene (CR) for Types 627HOSX, 627HMOSX and 627BHMOSX only | Diaphragm | -20 to 180 | -29 to 82 |
| Nitrile (NBR) for Types 627OSX, 627MOSX and 627BMOSX only | Diaphragm | -20 to 180 | -29 to 82 |

Pressure Registration

Type 627, 627H, 627R or 627LR: Internal

Type 627M, 627BM, 627HM, 627BHM, 627MR or 627BMR: External through 1/4 NPT internal control line connection in the diaphragm casing

De-Icer System

See Figure 14 and Type 627M De-Icer System Application section

Spring Case Orientation and Vent Location

See Figure 12

Spring Case Vent Connection

3/4 NPT with removable screened vent assembly

Approximate Weight

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Ductile iron, Steel or Stainless steel Casings:

10 lbs / 5 kg

Aluminum Casing: 6.3 lbs / 3 kg

Type 627OSX

NPS 1 / DN 25: 40 lbs / 18 kg

NPS 2 / DN 50: 42 lbs / 19 kg

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

2. Stainless steel body is rated to -40°F / -40°C. Steel and Ductile iron bodies are rated to -20°F / -29°C.

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Product Description

Types 627 and 627H Direct-Operated Pressure Reducing Regulators—The Types 627 and 627H regulators provide economical pressure reducing control for a variety of residential, commercial and industrial applications. The regulator pitot tube located in a high velocity stream provides dynamic boost that compensates for outlet pressure drop (see Tables 6 through 15).

Types 627BM, 627BMR or 627BHM Balanced Port Design—The Type 627BM combines the high-flowing capacity of a small pilot-operated regulator with the speed of a self-operated regulator with the addition of a balanced trim design. The balanced trim neutralizes inlet sensitivity to optimize inlet pressure ratings and maximize flow rates. With this design, a large 9/16 in. / 14.3 mm orifice is used for all Type 627BM applications without reduced inlet pressure ratings. External sensing only.

Type 627 Long Body—The Type 627 Long Body regulator can be used as a drop-in replacement for existing Type 630 installations without the need to modify piping.

Internal Relief for Type 627R, 627LR, 627MR or 627BMR Regulator—The Types 627R and 627LR internal relief performance values (Tables 4 and 5) were obtained by **removing the disk assembly** from the regulator, see Figure 13. For the Type 627R, 627LR or 627MR regulator, the internal relief across the diaphragm (Figure 3 or 4) provides overpressure protection in many applications. As outlet pressures build-up above the start-to-discharge point, the diaphragm moves off the relief valve seat allowing the excess pressure to bleed out through the screened vent.

For extra protection, should failure conditions exist which would prevent normal operation of the regulator (for example, disk broken off or disk erosion), the pusher post contacts the lever retainer (Figure 10) causing the relief valve assembly to open. Since the diaphragm continues to rise as downstream pressure builds, it opens the relief valve, thereby opening the valve. This internal relief may be adequate for the application.

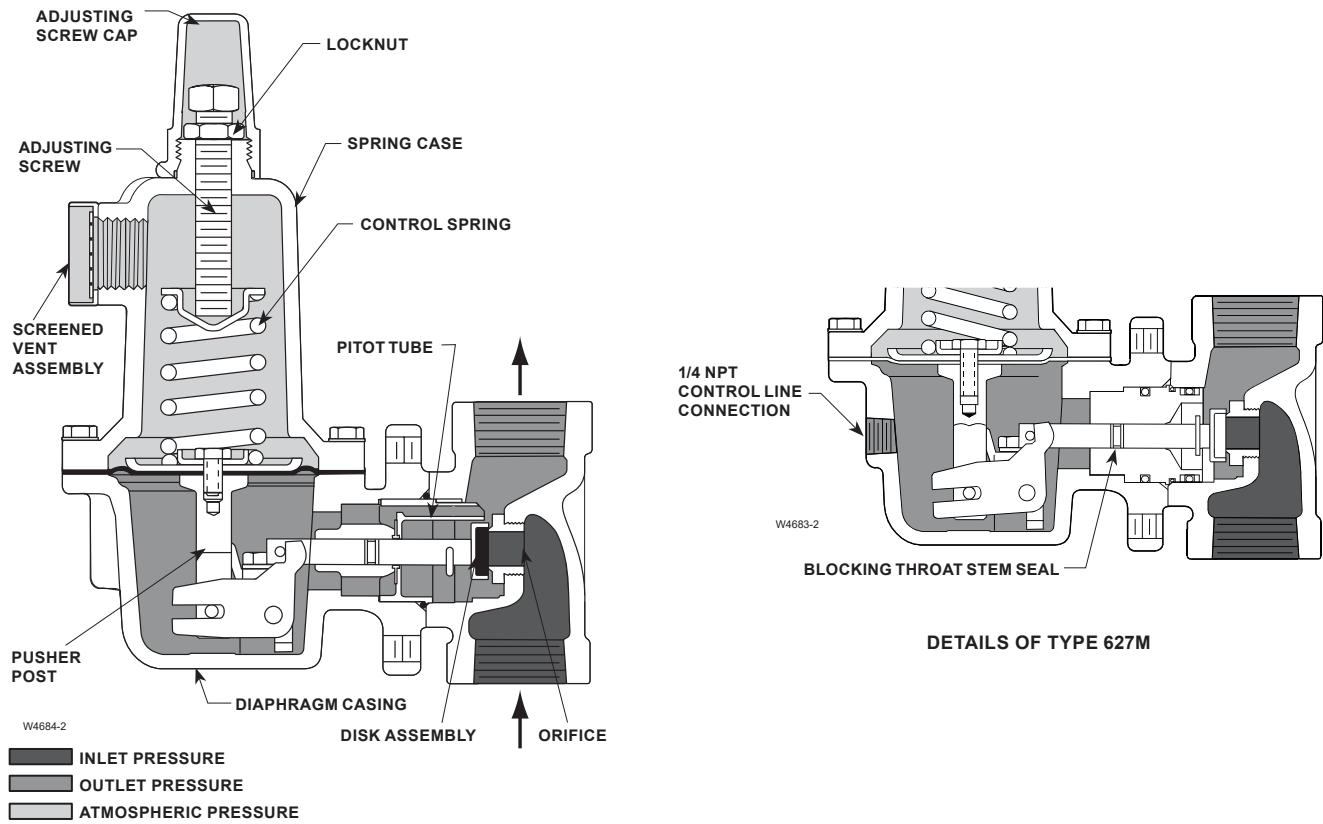


Figure 2. Types 627 and 627M Operational Schematics

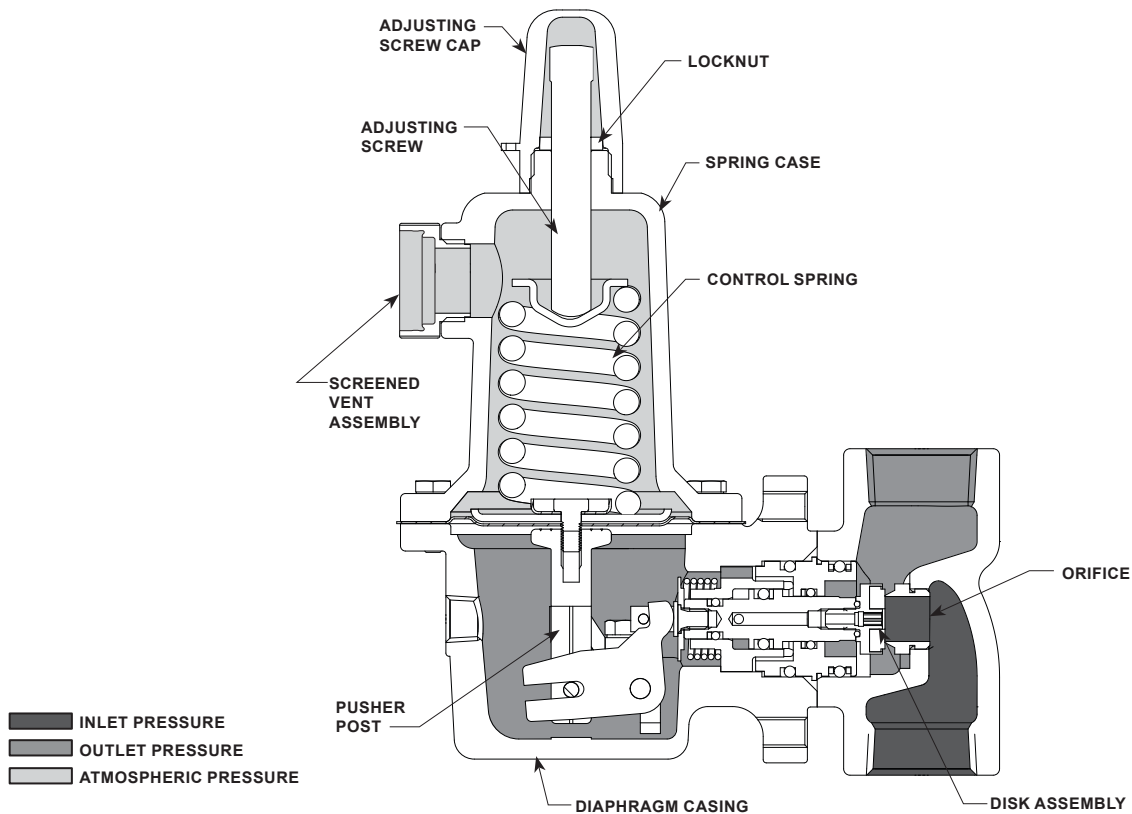


Figure 3. Type 627BM Operational Schematics

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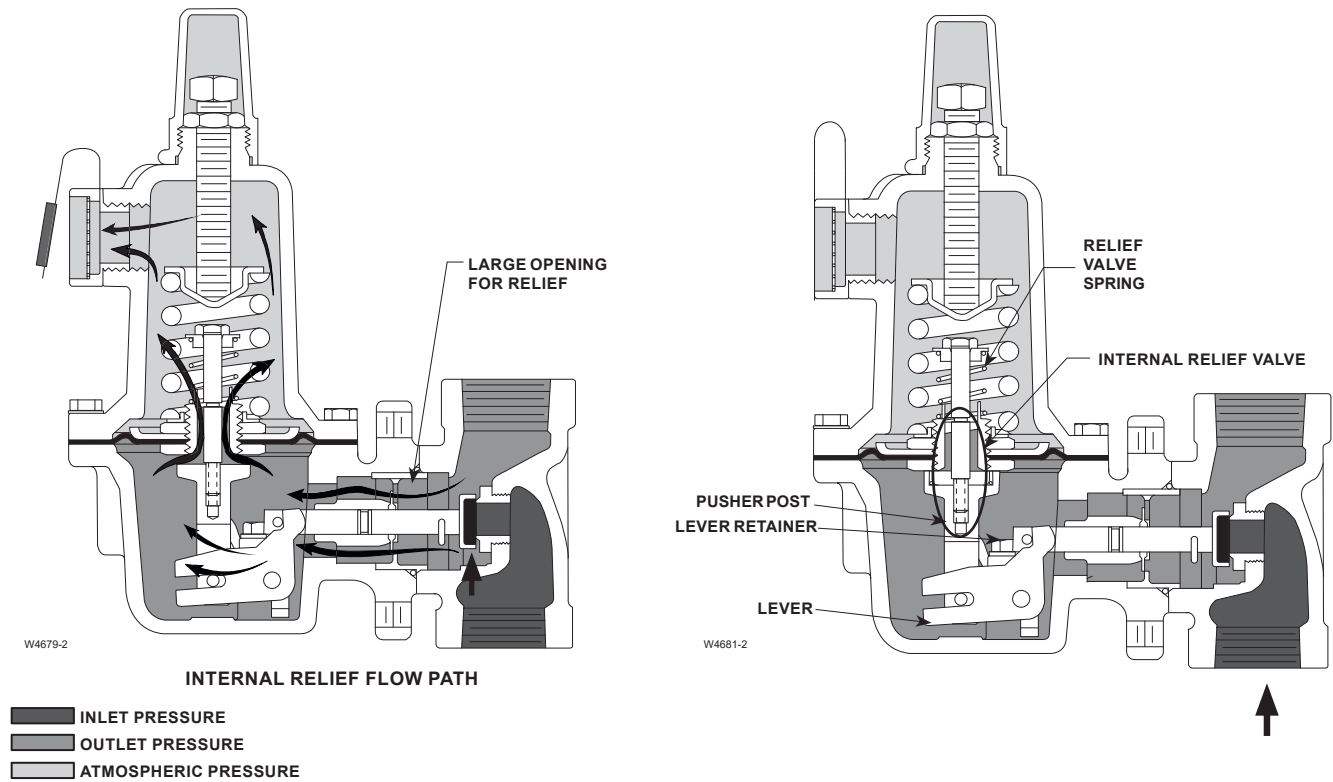


Figure 4. Types 627R and 627LR Operational Schematics

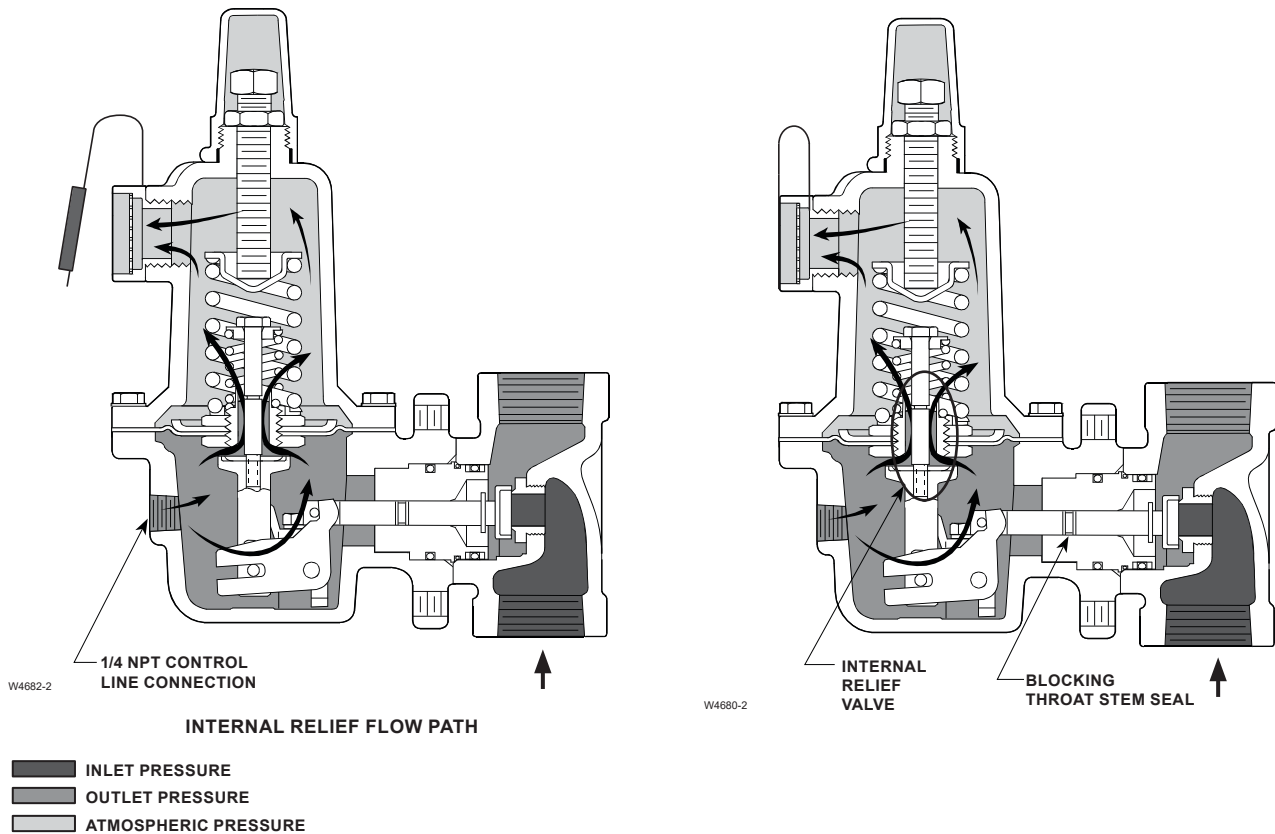


Figure 5. Type 627MR Operational Schematics

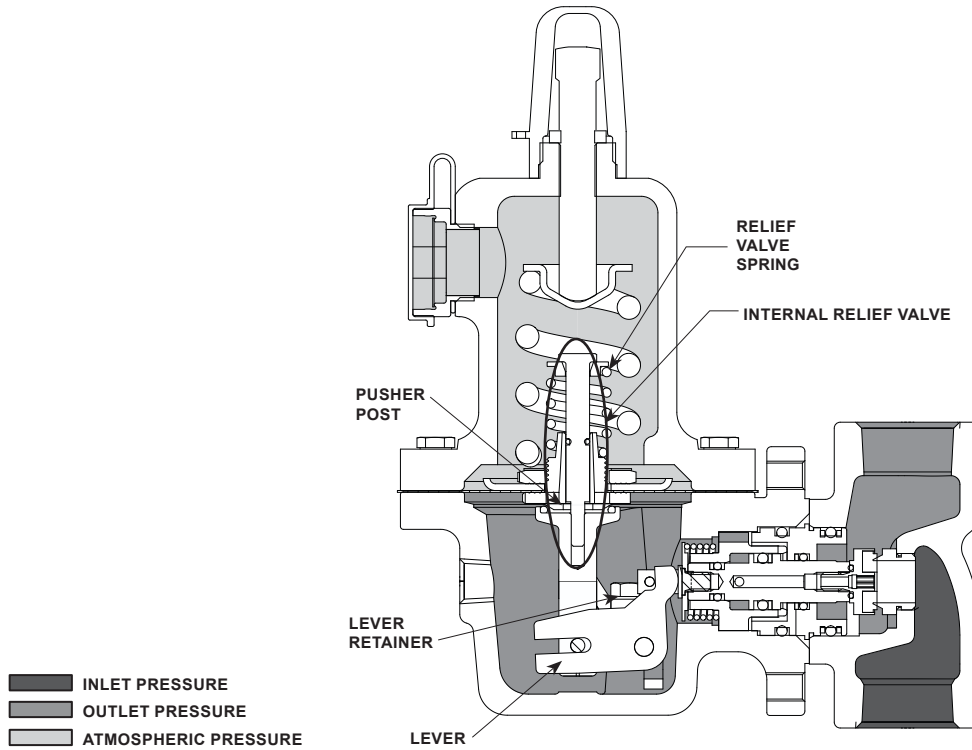


Figure 6. Type 627BMR Operational Schematics

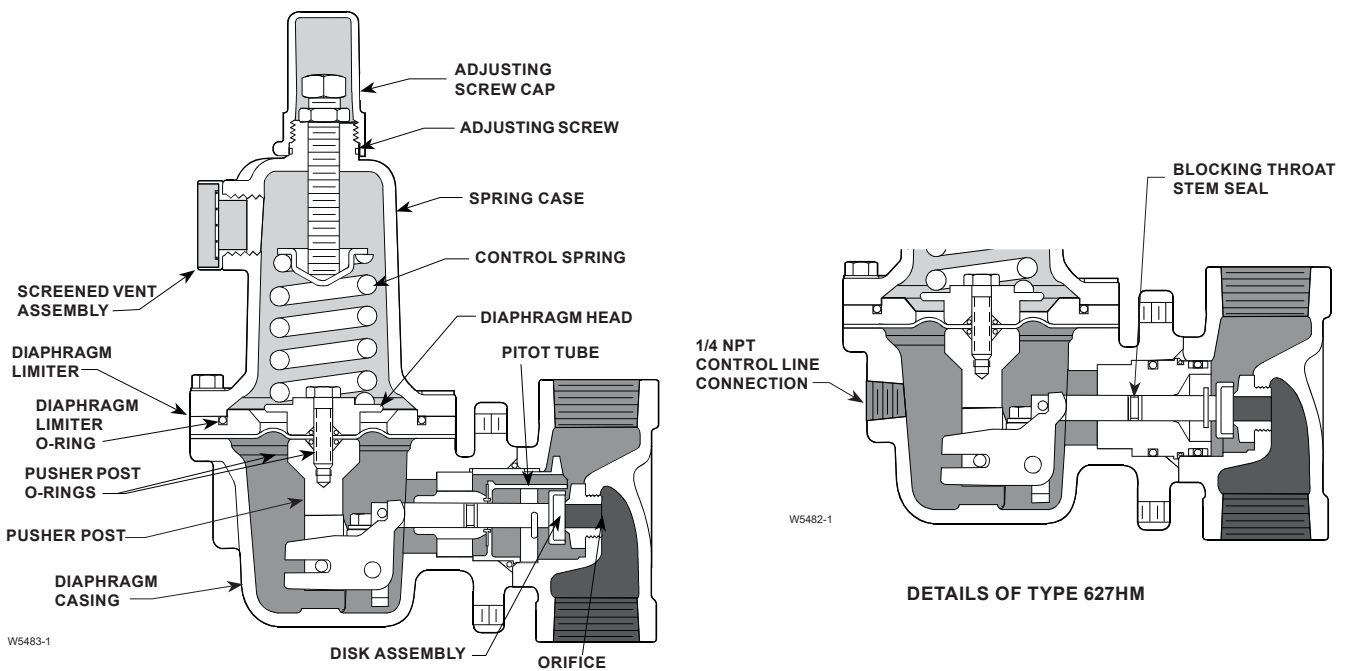


Figure 7. Types 627H and 627HM Operational Schematics

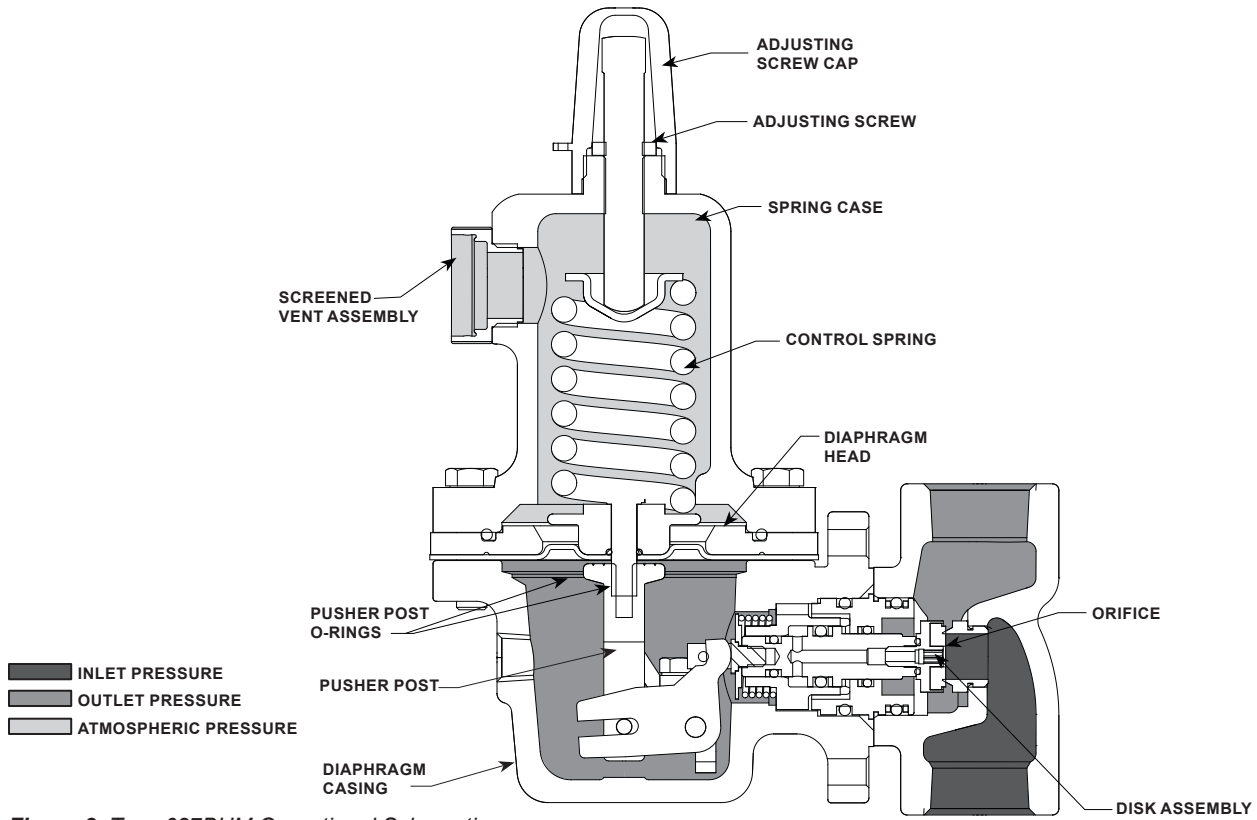


Figure 8. Type 627BHM Operational Schematics

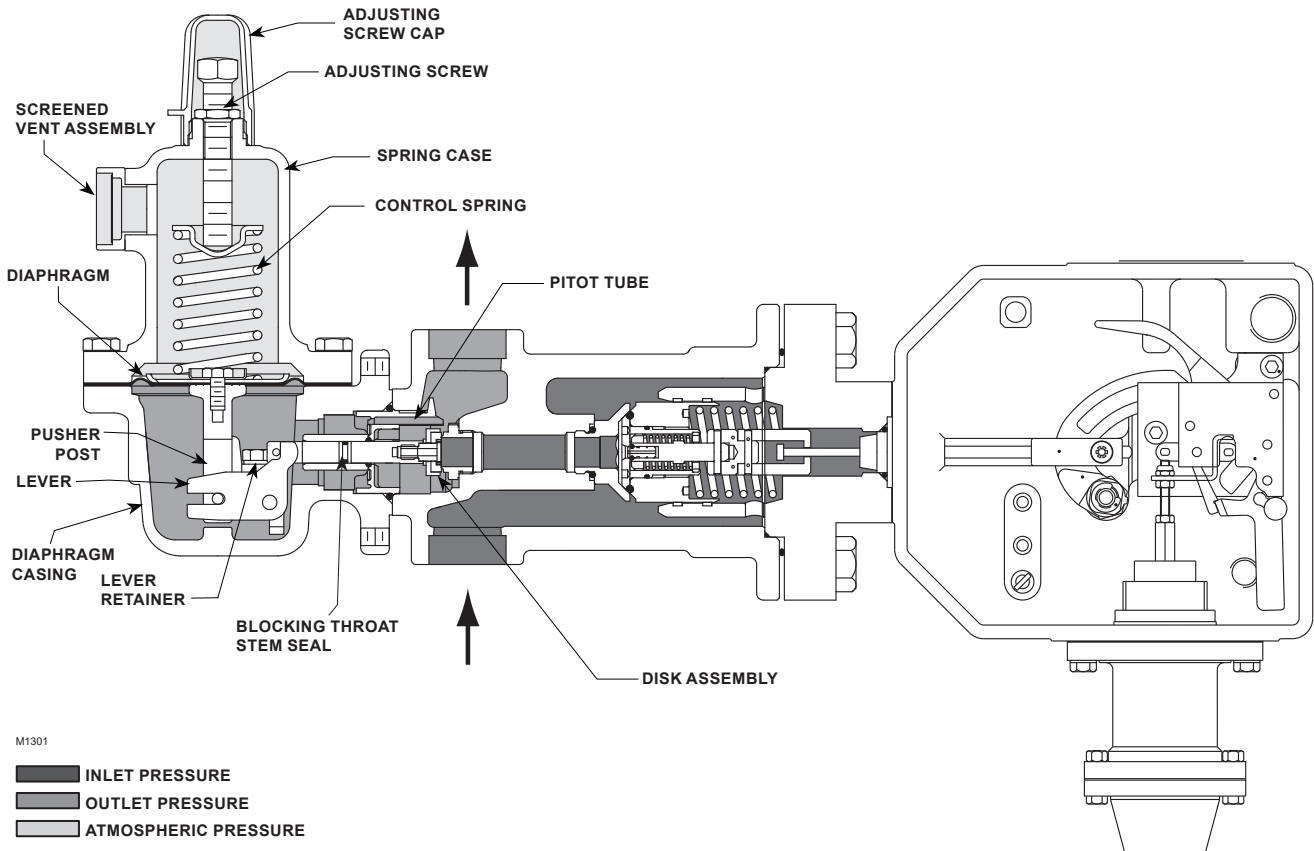
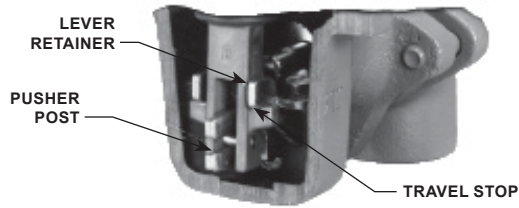
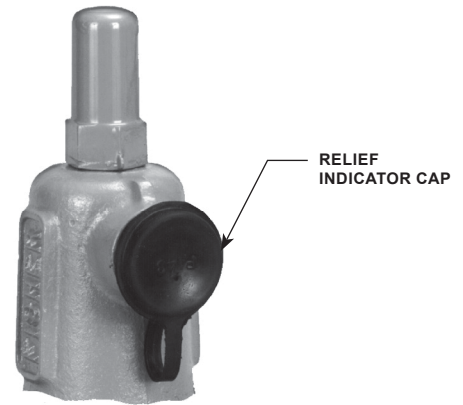


Figure 9. Type 627OSX with Type 627 Regulator and Type OSE Slam-Shut Valve



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Figure 10. Internal Relief Construction Feature



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Figure 11. Relief Indicator

Table 1. Maximum Cold Working Pressure of Body Inlet (Body Rating)⁽¹⁾⁽²⁾

| BODY SIZE | | BODY MATERIAL | END CONNECTION | MAXIMUM INLET PRESSURE | |
|-----------|----------|-----------------|----------------|------------------------|------|
| NPS | DN | | | psig | bar |
| 3/4 | 20 | Ductile iron | NPT | 1000 | 69.0 |
| | | Steel | NPT | 2000 | 138 |
| | | Stainless steel | NPT | 2000 | 138 |
| 1 2 | 25 50 | Ductile iron | NPT | 1000 | 69.0 |
| | | | NPT | 2000 | 138 |
| | | Steel | CL150 RF | 290 | 20.0 |
| | | | CL300 RF | 750 | 51.7 |
| | | | CL600 RF | 1500 | 103 |
| 1 2 | 25 50 | Stainless steel | PN 16/25/40 | 580 | 40.0 |
| | | | CL150 RF | 275 | 19.0 |
| | | | CL300 RF | 720 | 49.6 |
| | | | CL600 RF | 1440 | 99.3 |
| 1-1/4 | 32 | Ductile iron | PN 16/25/40 | 580 | 40.0 |
| | | | NPT | 1000 | 69.0 |

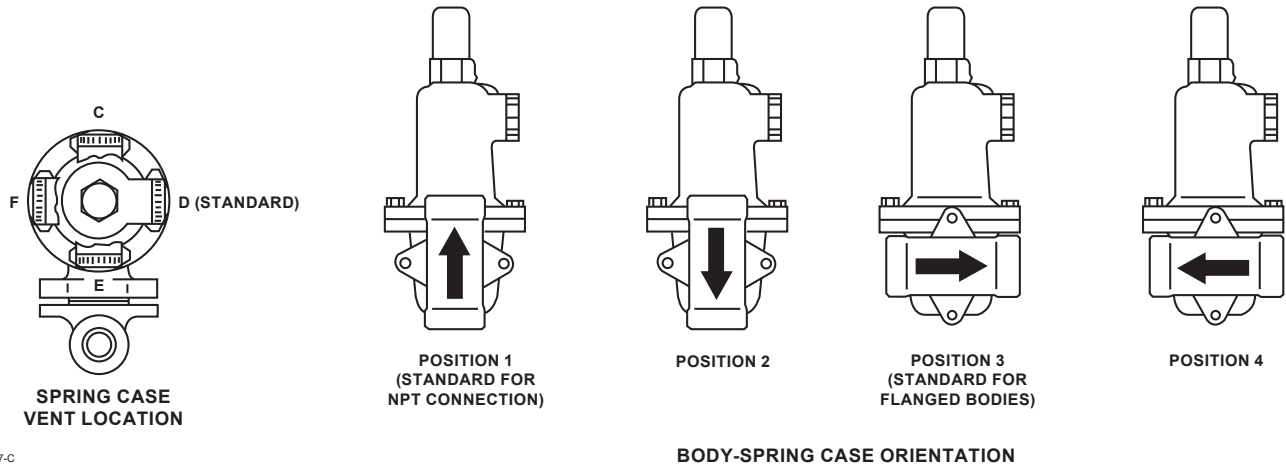
1. The pressure/temperature limits in this Bulletin and any applicable standard or code should not be exceeded.
 2. Temperature may decrease these maximum pressures.

Downstream Control Line for Type 627M, 627BM 627HM, 627BHM, 627MR or 627BMR Regulator—A Type 627M, 627BM, 627HM, 627BHM, 627MR or 627BMR regulator has a blocking throat stem seal with O-rings and a 1/4 NPT control line connection in the diaphragm case (Figure 4). A regulator with a downstream control line is used for monitoring applications or other applications where other equipment is installed between the regulator and the pressure control point. The stem seal separates the body outlet pressure from the diaphragm case.

Principle of Operation

627 Series Regulator

Refer to Figures 2 through 8. When downstream demand decreases, the pressure under the diaphragm increases. This pressure overcomes the regulator setting (which is set by a spring). Through the action of the pusher post assembly, lever and valve stem the valve disk moves closer to the orifice and reduces gas flow. If demand downstream increases, pressure under the diaphragm decreases. Spring force pushes the pusher post assembly downward and the valve disk moves away from the orifice allowing more flow through the body to the downstream system.



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Figure 12. 627 Series Spring Case and Vent Location

Type 627OSX Slam-Shut Device

The slam-shut device on the Type 627 can provide either overpressure (OPSO) or overpressure (OPSO) and underpressure (UPS0) protection by completely shutting off the flow of gas to the downstream system. Available on Types 627, 627H, 627M, 627HM, 627BM, and 627BHM.

Pressure is registered on one side of the diaphragm, piston or bellows and is opposed by the setpoint control spring of the manometric sensing device. The Type OSX slam-shut valve tripping pressure is determined by the setting of the control spring.

Overpressure – when the downstream pressure increases above the setpoint, the pressure on top of the diaphragm overcomes the spring setting and moves the manometric device stem.

Underpressure – when the downstream pressure decreases below the setpoint, the control spring pressure below the diaphragm overcomes the downstream pressure and pushes the diaphragm which moves the manometric device stem.

Installation

Regulator operation within ratings does not preclude the possibility of damage from debris in the lines or from external sources. A regulator should be inspected for damage periodically and after any overpressure condition. Ensure that the operating temperature capabilities listed in Specifications section are not exceeded.

Note

If the regulator is shipped mounted on another unit, install that unit according to the appropriate Instruction Manual.

Overpressure Protection

The 627 Series regulators have outlet pressure ratings that are lower than their inlet pressure ratings. A pressure-relieving or pressure-limiting device must be provided by the user for the Types 627, 627H, 627M, 627BM, 627HM and 627BHM regulators if the inlet pressure can exceed the outlet pressure rating, since these regulators do not have internal relief.

Types 627R and 627LR regulators provide internal relief which limits the total outlet pressure build-up over setpoint. Use Table 4 or 5 and the following example to determine the maximum inlet pressure allowed to keep the maximum allowable downstream pressure from being exceeded.

If the maximum allowable downstream system pressure is less than any of the pressures shown in the third column of Tables 4 and 5, use a separate relief valve or a monitor regulator since the internal relief will not open at pressures lower than shown in the table.

If the actual inlet pressure is higher than the pressure shown, in the Maximum Inlet Pressure column, to protect to the level shown, an additional relief valve is needed to supplement the relief capacity of the Type 627R or 627LR internal relief or a full capacity separate relief valve or monitor regulator may be used.

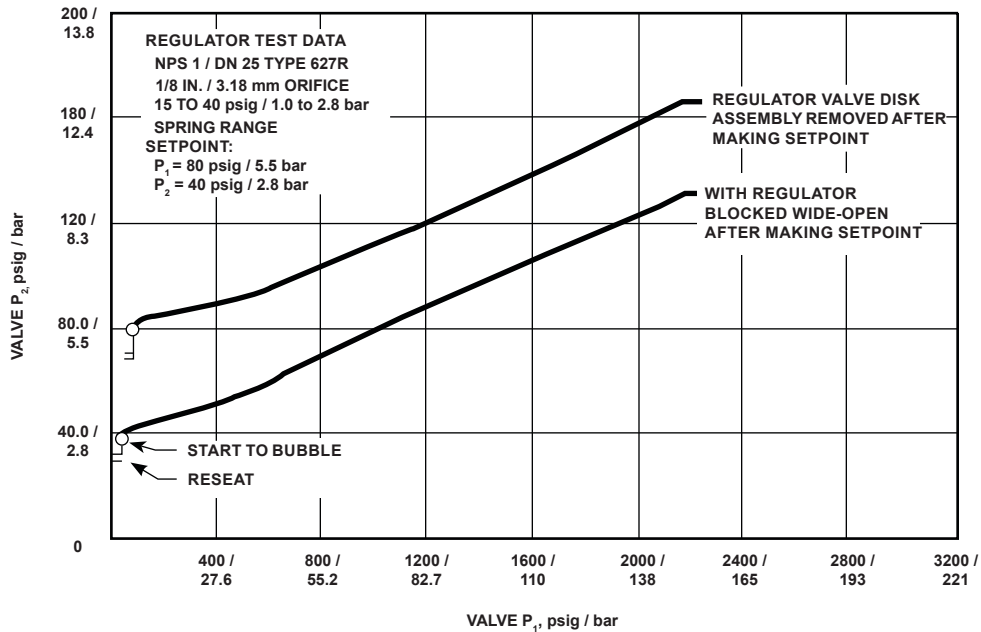


Figure 13. Relief Testing Methods, Outlet vs. Inlet Pressures

Table 2. Maximum Spring and Diaphragm Casing Pressure⁽¹⁾

| MAXIMUM PRESSURE DESCRIPTION | DIAPHRAGM CASING MATERIAL | TYPE 627 | | TYPES 627R AND 627LR | | TYPES 627M AND 627BM | | TYPES 627MR AND 627BMR | | TYPES 627H, 627HM AND 627BHM | |
|---|---------------------------|----------|------|----------------------|------|----------------------|------|------------------------|------|------------------------------|-----|
| | | psig | bar | psig | bar | psig | bar | psig | bar | psig | bar |
| Maximum pressure to spring and diaphragm casings to prevent leak to atmosphere other than relief action (internal parts damage may occur) | Die cast aluminum | | | | | Not Available | | Not Available | | Not Available | |
| | Ductile iron | 250 | 17.2 | 250 | 17.2 | 250 | 17.2 | 250 17.2 | | 800 55.2 | |
| | Steel or Stainless steel | | | | | | | | | | |
| Maximum pressure to spring and diaphragm casings to prevent burst of casings during abnormal operation (leak to atmosphere and internal parts damage may occur) | Die cast aluminum | 375 | 25.9 | 375 | 25.9 | Not Available | | Not Available | | Not Available | |
| | Ductile iron | 465 | 32.1 | 465 | 32.1 | 465 | 32.1 | 465 | 32.1 | | |
| | Steel or Stainless steel | 1500 | 103 | 1500 | 103 | 1500 | 103 | 1500 | 103 | | |
| Maximum diaphragm casing overpressure (above setpoint) to prevent damage to internal parts | All materials | 60 | 4.1 | 120 | 8.3 | 60 | 4.1 | 120 | 8.3 | 120 | 8.3 |

1. If the spring case is pressurized, a metal adjusting screw cap is required. Contact your local Sales Office for details.

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Table 3. Maximum Inlet Pressure and Outlet Pressure Ranges

| TYPE | OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | ORIFICE SIZE | | MAXIMUM INLET PRESSURE ⁽¹⁾ | | | | | |
|--|---|--------------|------|---------------------------------------|------|--------------------|------|-------------------------|------|
| | | | | Nylon (PA) Disk | | Nitrile (NBR) Disk | | Fluorocarbon (FKM) Disk | |
| | | In. | mm | psig | bar | psig | bar | psig | bar |
| 627 and 627M ⁽³⁾ | 5 to 20 psig ⁽²⁾ / 0.34 to 1.4 bar ⁽²⁾ 10B3076X012 Yellow | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/8 | 3.2 | 1000 | 69.0 | 1000 | 69.0 | 300 | 20.7 |
| | | 3/16 | 4.8 | 750 | 51.7 | 750 | 51.7 | 300 | 20.7 |
| | | 1/4 | 6.4 | 500 | 34.5 | 500 | 34.5 | 300 | 20.7 |
| | | 3/8 | 9.5 | 300 | 20.7 | 300 | 20.7 | 300 | 20.7 |
| | | 1/2 | 13 | 250 | 17.2 | 250 | 17.2 | 250 | 17.2 |
| | 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/8 | 3.2 | 1500 | 103 | 1000 | 69.0 | 300 | 20.7 |
| | | 3/16 | 4.8 | 1000 | 69.0 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/4 | 6.4 | 750 | 51.7 | 750 | 51.7 | 300 | 20.7 |
| | | 3/8 | 9.5 | 500 | 34.5 | 500 | 34.5 | 300 | 20.7 |
| | | 1/2 | 13 | 300 | 20.7 | 300 | 20.7 | 300 | 20.7 |
| | 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/8 | 3.2 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 |
| | | 3/16 | 4.8 | 1750 | 121 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/4 | 6.4 | 1500 | 103 | 1000 | 69.0 | 300 | 20.7 |
| 3/8 | | 9.5 | 1000 | 69.0 | 1000 | 69.0 | 300 | 20.7 | |
| 1/2 | | 13 | 750 | 51.7 | 750 | 51.7 | 300 | 20.7 | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 | |
| | 1/8 | 3.2 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 | |
| | 3/16 | 4.8 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 | |
| | 1/4 | 6.4 | 1750 | 121 | 1000 | 69.0 | 300 | 20.7 | |
| | 3/8 | 9.5 | 1250 | 86.2 | 1000 | 69.0 | 300 | 20.7 | |
| | 1/2 | 13 | 750 | 51.7 | 750 | 51.7 | 300 | 20.7 | |
| 627R and 627MR | 5 ⁽²⁾ to 20 psig / 0.34 ⁽²⁾ to 1.4 bar 10B3076X012 Yellow | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/8 | 3.2 | 1000 | 69.0 | 1000 | 69.0 | 300 | 20.7 |
| | | 3/16 | 4.8 | 750 | 51.7 | 750 | 51.7 | 300 | 20.7 |
| | | 1/4 | 6.4 | 500 | 34.5 | 500 | 34.5 | 300 | 20.7 |
| | | 3/8 | 9.5 | 300 | 20.7 | 300 | 20.7 | 300 | 20.7 |
| | | 1/2 | 13 | 200 | 13.8 | 200 | 13.8 | 200 | 13.8 |
| | 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/8 | 3.2 | 1500 | 103 | 1000 | 69.0 | 300 | 20.7 |
| | | 3/16 | 4.8 | 1000 | 69.0 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/4 | 6.4 | 750 | 51.7 | 750 | 51.7 | 300 | 20.7 |
| | | 3/8 | 9.5 | 300 | 20.7 | 300 | 20.7 | 300 | 20.7 |
| | | 1/2 | 13 | 200 | 13.8 | 200 | 13.8 | 200 | 13.8 |
| | 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/8 | 3.2 | 1750 | 121 | 1000 | 69.0 | 300 | 20.7 |
| | | 3/16 | 4.8 | 1000 | 69.0 | 1000 | 69.0 | 300 | 20.7 |
| | | 1/4 | 6.4 | 750 | 51.7 | 750 | 51.7 | 300 | 20.7 |
| 3/8 | | 9.5 | 300 | 20.7 | 300 | 20.7 | 300 | 20.7 | |
| 1/2 | | 13 | 200 | 13.8 | 200 | 13.8 | 200 | 13.8 | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | 300 | 20.7 | |
| | 1/8 | 3.2 | 1000 | 69.0 | 1000 | 69.0 | 300 | 20.7 | |
| | 3/16 | 4.8 | 500 | 34.5 | 500 | 34.5 | 300 | 20.7 | |
| | 1/4 | 6.4 | 300 | 20.7 | 300 | 20.7 | 300 | 20.7 | |
| | 3/8 | 9.5 | 200 | 13.8 | 200 | 13.8 | 200 | 13.8 | |
| | 1/2 | 13 | 200 | 13.8 | 200 | 13.8 | 200 | 13.8 | |
| 627LR | 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 3/32 | 2.4 | | | 1000 | 69.0 | 300 | 20.7 |
| | | 1/8 | 3.2 | | | 1000 | 69.0 | 300 | 20.7 |
| | | 3/16 | 4.8 | | | 750 | 51.7 | 300 | 20.7 |
| | | 1/4 | 6.4 | | | 500 | 34.5 | 300 | 20.7 |
| 627H and 627HM ⁽³⁾ | 140 to 250 psig / 9.7 to 17.2 bar 10B3078X012 Blue | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | | |
| | | 1/8 | 3.2 | 2000 | 138 | 1000 | 69.0 | | |
| | | 3/16 | 4.8 | 1750 | 121 | 1000 | 69.0 | | |
| | | 1/4 | 6.4 | 1500 | 103 | 1000 | 69.0 | | |
| | | 3/8 | 9.5 | 1000 | 69.0 | 750 | 51.7 | | |
| | 1/2 | 13 | 750 | 51.7 | 500 | 34.5 | | | |
| | 240 to 500 psig / 16.5 to 34.5 bar 10B3079X012 Red | 3/32 | 2.4 | 2000 | 138 | 1000 | 69.0 | | |
| | | 1/8 | 3.2 | 2000 | 138 | 1000 | 69.0 | | |
| | | 3/16 | 4.8 | 1750 | 121 | 1000 | 69.0 | | |
| | | 1/4 | 6.4 | 1500 | 103 | 1000 | 69.0 | | |
| 3/8 | | 9.5 | 1000 | 69.0 | 1000 | 69.0 | | | |
| 1/2 | 13 | 750 | 51.7 | 750 | 51.7 | | | | |

— Shaded areas indicate that Fluorocarbon (FKM) and Nylon (PA) disk material are not available.

1. For inlet pressure in excess of 1000 psig / 69.0 bar, refer to the maximum body and disk pressure ratings in the Specifications section.

2. For pressure settings under 10 psig / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so the setpoint adjustment can be obtained.

3. The unbalance forces change from the wide-open monitor mode to an active regulator mode such that the Type 627M or 627HM should have a 3/8 in. / 9.5 mm or larger orifice.

- continued -

Table 3. Maximum Inlet Pressure and Outlet Pressure Ranges (continued)

| TYPE | OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | ORIFICE SIZE | | MAXIMUM INLET PRESSURE ⁽¹⁾ | | | | | |
|------------------|---|--------------|------|---------------------------------------|-----|--------------------|-----|-------------------------|-----|
| | | | | Nylon (PA) Disk | | Nitrile (NBR) Disk | | Fluorocarbon (FKM) Disk | |
| | | In. | mm | psig | bar | psig | bar | psig | bar |
| 627BM and 627BMR | 5 ⁽²⁾ to 30 psig / 0.34 ⁽²⁾ to 1.4 bar 10B3076X012 Yellow | 9/16 | 14.3 | 1500 | 103 | 1000 | 69 | | |
| | 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | | | | | | | | |
| | 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | | | | | | | | |
| | 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | | | | | | | | |
| 627BHM | 140 to 250 psig / 9.7 to 17.2 bar 10B3078X012 Blue | | | | | | | | |
| | 240 to 500 psig / 16.5 to 34.5 bar 10B3079X012 Red | | | | | | | | |

— Shaded areas indicate that Fluorocarbon (FKM) are not available.
 1. For inlet pressure in excess of 1000 psig / 69.0 bar, refer to the maximum body and disk pressure ratings in the Specifications section.
 2. For pressure settings under 10 psig / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so the setpoint adjustment can be obtained.

To size a supplemental relief valve to use with the Type 627R or 627LR:

1. Use the universal sizing equation to calculate the wide-open capacity of the regulator port (Q_1) using:
 - a. Actual inlet pressure (P_1), psia
 - b. Maximum allowable downstream system pressure (P_2) from Table 4 or 5, column 3
 - c. C_g from Table 16

Given:

Desired outlet pressure setting : 40 psig / 2.8 bar
Maximum allowable downstream pressure : 125 psig / 8.6 bar
Orifice size : 1/4 in. / 6.35 mm

What is the maximum inlet pressure?

Control spring range (first column) : 35 to 80 psig / 2.4 to 5.5 bar
Outlet pressure setting (second column) : 40 psig / 2.8 bar
Maximum allowable downstream pressure (third column) : 125 psig / 8.6 bar
Orifice size column across from the 125 psig / 8.6 bar maximum allowable pressure and the column under 1/4 in. / 6.4 mm orifice size : 1/4 in. / 6.4 mm

From Table 4, the maximum inlet pressure for this example is 300 psig / 20.7 bar.

In many cases, the internal relief of Types 627R and 627LR offers full capacity overpressure protection.

No additional relief capacity is needed if the actual inlet pressure is equal to or less than the inlet pressure shown under the Maximum Inlet Pressure column heading in Tables 4 and 5.

2. Use the universal sizing equation to calculate the internal relief flow (Q_2) using:
 - a. Maximum inlet pressure (P_1) from Table 4 columns 4 through 9 for Type 627R or Table 5 columns 4 through 7 for Type 627LR (use the pressure from the table even though the actual pressure will be higher). Remember the equation requires pressures to be converted to psia.
 - b. Maximum allowable downstream system pressure (P_2) from Table 4 or 5
 - c. C_g from Table 16
3. Calculate supplemental relief capacity:
 - a. Q supplemental relief = $Q_1 - Q_2$

Example:

Outlet pressure setting : 10 psig / 0.69 bar
Maximum allowable downstream system pressure : 60 psig / 4.1 bar
Inlet pressure : 300 psig / 20.7 bar
Orifice size : 1/4 in. / 6.4 mm

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Table 4. Type 627R Internal Relief Performance⁽¹⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽²⁾ | | MAXIMUM ALLOWABLE DOWNSTREAM SYSTEM PRESSURE | | MAXIMUM INLET PRESSURE TO KEEP MAXIMUM ALLOWABLE DOWNSTREAM SYSTEM PRESSURE FROM BEING EXCEEDED ⁽²⁾ | | | | | | | | | | | |
|--|--|------|--|------|--|------|-----------|------|------------|------|-----------|------|-----------|------|----------|------|
| | | | | | Orifice Size, In. / mm | | | | | | | | | | | |
| | | | | | 3/32 / 2.4 | | 1/8 / 3.2 | | 3/16 / 4.8 | | 1/4 / 6.4 | | 3/8 / 9.5 | | 1/2 / 13 | |
| | psig | bar | psig | bar | psig | bar | psig | bar | psig | bar | psig | bar | psig | bar | psig | bar |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 10 | 0.69 | 60 | 4.1 | 1250 | 86.2 | 740 | 51.0 | 320 | 22.1 | 190 | 13.1 | 95 | 6.6 | 75 | 5.2 |
| | | | 100 | 6.9 | 2000 | 138 | 1500 | 103 | 620 | 42.7 | 390 | 26.9 | 180 | 12.4 | 130 | 9.0 |
| | | | 125 | 8.6 | 2000 | 138 | 1900 | 131 | 830 | 57.2 | 480 | 33.1 | 220 | 15.2 | 160 | 11.0 |
| | | | 175 | 12.1 | 2000 | 138 | 2000 | 138 | 1100 | 75.8 | 670 | 46.2 | 320 | 22.1 | 220 | 15.2 |
| | | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 1300 | 89.6 | 770 | 53.1 | 360 | 24.8 | 260 | 17.9 |
| | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1600 | 110 | 960 | 66.2 | 450 | 31.0 | 320 | 22.1 | | |
| | 15 | 1.0 | 60 | 4.1 | 1000 | 69.0 | 620 | 42.7 | 260 | 17.9 | 170 | 11.7 | 90 | 6.2 | 70 | 4.8 |
| | | | 100 | 6.9 | 2000 | 138 | 1400 | 96.5 | 610 | 42.1 | 370 | 25.5 | 170 | 11.7 | 130 | 9.0 |
| | | | 125 | 8.6 | 2000 | 138 | 1900 | 131 | 810 | 55.8 | 480 | 33.1 | 220 | 15.2 | 160 | 11.0 |
| | | | 175 | 12.1 | 2000 | 138 | 2000 | 138 | 1100 | 75.8 | 670 | 46.2 | 320 | 22.1 | 220 | 15.2 |
| | | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 1300 | 89.6 | 770 | 53.1 | 360 | 24.8 | 260 | 17.9 |
| | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1600 | 110 | 960 | 66.2 | 450 | 31.0 | 320 | 22.1 | | |
| | 20 | 1.4 | 60 | 4.1 | 850 | 58.6 | 490 | 33.8 | 210 | 14.5 | 130 | 9.0 | 80 | 5.5 | 65 | 4.5 |
| | | | 100 | 6.9 | 2000 | 138 | 1300 | 89.6 | 600 | 41.4 | 360 | 24.8 | 170 | 11.7 | 120 | 8.3 |
| | | | 125 | 8.6 | 2000 | 138 | 1800 | 124 | 800 | 55.2 | 480 | 33.1 | 220 | 15.2 | 160 | 11.0 |
| 175 | | | 12.1 | 2000 | 138 | 2000 | 138 | 1100 | 75.8 | 670 | 46.2 | 320 | 22.1 | 220 | 15.2 | |
| 200 | | | 13.8 | 2000 | 138 | 2000 | 138 | 1300 | 89.6 | 770 | 53.1 | 360 | 24.8 | 260 | 17.9 | |
| 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1600 | 110 | 960 | 66.2 | 450 | 31.0 | 320 | 22.1 | | | |
| 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 15 | 1.0 | 60 | 4.1 | 1000 | 69.0 | 380 | 26.2 | 210 | 14.5 | 130 | 9.0 | 80 | 5.5 | 65 | 4.5 |
| | | | 100 | 6.9 | 2000 | 138 | 1300 | 89.6 | 590 | 40.7 | 350 | 24.1 | 170 | 11.7 | 120 | 8.3 |
| | | | 125 | 8.6 | 2000 | 138 | 1800 | 124 | 800 | 55.2 | 470 | 32.4 | 220 | 15.2 | 160 | 11.0 |
| | | | 175 | 12.1 | 2000 | 138 | 2000 | 138 | 1100 | 75.8 | 640 | 44.1 | 320 | 22.1 | 220 | 15.2 |
| | | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 1300 | 89.6 | 780 | 53.8 | 370 | 25.5 | 260 | 17.9 |
| | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1600 | 66.2 | 960 | 66.2 | 450 | 31.0 | 320 | 22.1 | | |
| | 20 | 1.4 | 60 | 4.1 | 630 | 43.4 | 200 | 13.8 | 150 | 10.3 | 100 | 6.9 | 70 | 4.8 | 65 | 4.5 |
| | | | 100 | 6.9 | 2000 | 138 | 1200 | 82.7 | 550 | 37.9 | 330 | 22.8 | 160 | 11.0 | 120 | 8.3 |
| | | | 125 | 8.6 | 2000 | 138 | 1700 | 117 | 760 | 52.4 | 450 | 31.1 | 210 | 14.5 | 160 | 11.0 |
| | | | 175 | 12.1 | 2000 | 138 | 2000 | 138 | 1100 | 75.8 | 630 | 43.4 | 320 | 22.1 | 220 | 15.2 |
| | | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 1300 | 89.6 | 770 | 53.1 | 360 | 24.8 | 260 | 17.9 |
| | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1600 | 66.2 | 960 | 66.2 | 460 | 31.7 | 320 | 22.1 | | |
| | 30 | 2.1 | 100 | 6.9 | 2000 | 138 | 950 | 65.5 | 450 | 31.1 | 260 | 17.9 | 140 | 9.7 | 110 | 7.6 |
| | | | 125 | 8.6 | 2000 | 138 | 1500 | 103 | 670 | 46.2 | 400 | 27.6 | 190 | 13.1 | 150 | 10.3 |
| | | | 175 | 12.1 | 2000 | 138 | 2000 | 138 | 1000 | 69.0 | 610 | 42.1 | 300 | 20.7 | 220 | 15.2 |
| 200 | | | 13.8 | 2000 | 138 | 2000 | 138 | 1200 | 82.7 | 760 | 52.4 | 360 | 24.8 | 260 | 17.9 | |
| 250 | | | 17.2 | 2000 | 138 | 2000 | 138 | 1600 | 110 | 970 | 66.9 | 460 | 31.7 | 320 | 22.1 | |
| 40 | 2.8 | 100 | 6.9 | 1500 | 103 | 700 | 48.3 | 330 | 22.8 | 200 | 13.8 | 120 | 8.3 | 108 | 7.4 | |
| | | 125 | 8.6 | 2000 | 138 | 1300 | 89.6 | 560 | 38.6 | 340 | 23.4 | 180 | 12.4 | 140 | 9.7 | |
| | | 175 | 12.1 | 2000 | 138 | 1800 | 124 | 1000 | 69.0 | 550 | 37.9 | 290 | 20.0 | 220 | 15.2 | |
| | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 1200 | 82.7 | 730 | 50.3 | 350 | 24.1 | 250 | 17.2 | |
| | | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1600 | 110 | 970 | 66.9 | 460 | 31.7 | 320 | 22.1 | |
| 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 40 | 2.8 | 125 | 8.6 | 2000 | 138 | 1100 | 75.8 | 500 | 34.5 | 300 | 20.7 | 170 | 11.7 | 140 | 9.7 |
| | | | 150 | 10.3 | 2000 | 138 | 1600 | 110 | 750 | 51.7 | 440 | 30.3 | 230 | 15.9 | 180 | 12.4 |
| | | | 175 | 12.1 | 2000 | 138 | 2000 | 138 | 980 | 67.6 | 580 | 40.0 | 290 | 20.0 | 220 | 5.2 |
| | | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 1200 | 82.7 | 720 | 49.6 | 340 | 23.4 | 250 | 17.2 |
| | | | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1600 | 110 | 940 | 64.8 | 450 | 31.0 | 320 | 22.1 |
| | 50 | 3.4 | 125 | 8.6 | 1400 | 96.5 | 820 | 56.5 | 400 | 27.6 | 230 | 15.9 | 150 | 10.3 | 140 | 9.7 |
| | | | 150 | 10.3 | 2000 | 138 | 1400 | 96.5 | 650 | 44.8 | 370 | 25.5 | 210 | 14.5 | 170 | 11.7 |
| | | | 175 | 12.1 | 2000 | 138 | 1900 | 131 | 700 | 48.3 | 530 | 36.5 | 270 | 18.6 | 210 | 14.5 |
| | | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 1100 | 75.8 | 670 | 46.2 | 330 | 22.8 | 240 | 16.5 |
| | | | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1500 | 103 | 920 | 63.4 | 430 | 29.6 | 320 | 22.1 |
| | 60 | 4.1 | 125 | 8.6 | 900 | 62.1 | 450 | 31.0 | 270 | 18.6 | 190 | 13.1 | 140 | 9.7 | 130 | 9.0 |
| | | | 150 | 10.3 | 1700 | 117 | 1100 | 75.8 | 540 | 37.2 | 300 | 20.7 | 190 | 13.1 | 160 | 11.0 |
| | | | 175 | 12.1 | 2000 | 138 | 1700 | 117 | 780 | 53.8 | 470 | 32.4 | 250 | 17.2 | 200 | 13.8 |
| | | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 1000 | 69.0 | 610 | 42.1 | 310 | 21.4 | 230 | 15.9 |
| | | | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1400 | 96.5 | 880 | 60.7 | 420 | 29.0 | 310 | 21.4 |
| 70 | 4.8 | 150 | 10.3 | 1200 | 82.7 | 850 | 58.6 | 430 | 29.6 | 250 | 17.2 | 170 | 11.7 | 160 | 11.0 | |
| | | 175 | 12.1 | 2000 | 138 | 1400 | 96.5 | 670 | 46.2 | 400 | 27.6 | 230 | 15.9 | 190 | 13.1 | |
| | | 200 | 13.8 | 2000 | 138 | 2000 | 138 | 920 | 63.4 | 550 | 37.9 | 280 | 19.3 | 230 | 15.9 | |
| | | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1300 | 89.6 | 830 | 57.2 | 400 | 27.6 | 310 | 21.4 | |
| | | 150 | 10.3 | 800 | 55.2 | 500 | 34.5 | 300 | 20.7 | 200 | 13.8 | 160 | 11.0 | 150 | 10.3 | |
| 80 | 5.5 | 175 | 12.1 | 1500 | 103 | 1200 | 82.7 | 550 | 37.9 | 330 | 22.8 | 210 | 4.5 | 190 | 13.1 | |
| | | 200 | 13.8 | 2000 | 138 | 1700 | 117 | 800 | 55.2 | 480 | 33.1 | 270 | 18.6 | 220 | 15.2 | |
| | | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1200 | 82.7 | 770 | 53.1 | 390 | 26.9 | 300 | 20.7 | |
| | | 175 | 12.1 | 1900 | 131 | 600 | 41.4 | 400 | 27.6 | 260 | 17.9 | 200 | 13.8 | 175 | 12.1 | |
| | | 200 | 13.8 | 2000 | 138 | 1200 | 82.7 | 630 | 43.4 | 380 | 26.2 | 250 | 17.2 | 210 | 14.5 | |
| 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1100 | 75.8 | 680 | 46.9 | 360 | 24.8 | 290 | 20.0 | | | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 80 | 5.5 | 175 | 12.1 | 1400 | 96.5 | 250 | 17.2 | 240 | 16.5 | 200 | 13.8 | 190 | 13.1 | 175 | 12.1 |
| | | | 200 | 13.8 | 2000 | 138 | 960 | 66.2 | 520 | 35.9 | 330 | 22.8 | 240 | 16.5 | 210 | 14.5 |
| | | | 250 | 17.2 | 2000 | 138 | 2000 | 138 | 1000 | 69.0 | 620 | 42.7 | 350 | 24.1 | 280 | 19.3 |
| | 100 | 6.9 | 200 | 13.8 | 1500 | 103 | 250 | 17.2 | 240 | 16.5 | 230 | 15.9 | 210 | 14.5 | 210 | 14.5 |
| | | | 250 | 17.2 | 2000 | 138 | 1600 | 110 | 770 | 53.1 | 520 | 35.9 | 320 | 22.1 | 270 | 18.6 |
| 125 | 8.6 | 250 | 17.2 | 2000 | 138 | 1000 | 69.0 | 500 | 34.5 | 390 | 26.9 | 290 | 20.0 | 260 | 17.9 | |
| 150 | 10.3 | 250 | 17.2 | 1200 | 82.7 | 260 | 17.9 | 260 | 17.9 | 260 | 17.9 | 260 | 17.9 | 260 | 17.9 | |

— Shaded areas indicate maximum inlet pressures allowed during system malfunction only. Table 1 gives the maximum inlet pressure for normal regulator operation.

1. The internal relief performance values are obtained by removing the disk assembly.

2. For inlet pressures 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 / 6.9 bar so the setpoint adjustment can be obtained.

Table 5. Type 627LR Internal Relief Performance⁽¹⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING | | MAXIMUM ALLOWABLE DOWNSTREAM SYSTEM PRESSURE | | MAXIMUM INLET PRESSURE TO KEEP MAXIMUM ALLOWABLE DOWNSTREAM SYSTEM PRESSURE FROM BEING EXCEEDED ⁽²⁾ | | | | | | | |
|--|-------------------------|------|--|------|--|------|-----------|------|------------|------|-----------|------|
| | | | | | Orifice Size, In. / mm | | | | | | | |
| | | | | | 3/32 / 2.4 | | 1/8 / 3.2 | | 3/16 / 4.8 | | 1/4 / 6.4 | |
| psig | bar | psig | bar | psig | bar | psig | bar | psig | bar | psig | bar | |
| 15 to 40 psig / 1.03 to 2.8 bar | 30 | 2.1 | 55 | 3.8 | 500 | 34.5 | 270 | 18.6 | 110 | 7.6 | 80 | 5.5 |
| | | | 60 | 4.1 | 850 | 58.6 | 480 | 33.1 | 200 | 13.8 | 120 | 8.3 |
| | | | 66 | 4.5 | 1000 | 69.0 | 660 | 45.5 | 290 | 20.0 | 175 | 12.1 |
| 10B3077X012 Green | 40 | 2.8 | 66 | 4.5 | 380 | 26.2 | 190 | 13.1 | 85 | 5.9 | 80 | 5.5 |
| | | | 70 | 4.8 | 700 | 48.3 | 370 | 25.5 | 150 | 10.3 | 115 | 7.9 |
| | | | 75 | 5.2 | 1000 | 69.0 | 560 | 38.6 | 240 | 16.5 | 160 | 11.0 |

1. The internal relief performance values are obtained by removing the disk assembly.
 2. For inlet pressures in excess of 1000 psig / 69.0 bar, refer to the maximum body and disk pressure ratings in the Specifications section.

Step 1.

$$P_1 = 300 \text{ psig} / 20.7 \text{ bar}$$

$$P_2 = 60 \text{ psig} / 4.1 \text{ bar}$$

$$C_g, 1/4 \text{ in.} / 6.4 \text{ mm orifice} = 50$$

$$Q_1 = 20,300 \text{ SCFH} / 544 \text{ Nm}^3/\text{h}$$

Step 2.

$$P_1 = 190 \text{ psig} / 13.1 \text{ bar}$$

$$P_2 = 60 \text{ psig} / 4.1 \text{ bar}$$

$$C_g, 1/4 \text{ in.} / 6.4 \text{ mm orifice} = 50$$

$$Q_2 = 13,200 \text{ SCFH} / 354 \text{ Nm}^3/\text{h}$$

Step 3.

$$Q \text{ supplemental relief} = Q_1 - Q_2$$

$$Q \text{ supplemental relief} = 20,300 - 13,200 = 7100 \text{ SCFH} / 544 - 354 = 190 \text{ Nm}^3/\text{h}$$

Overpressurizing any portion of a regulator or associated equipment may cause personal injury, leakage or property damage due to bursting of pressure-containing parts or explosion of accumulated gas.

If needed, provide appropriate pressure-relieving or pressure-limiting devices to ensure that none of the specifications are exceeded. Regulator operation within ratings does not prevent the possibility of damage from external sources such as debris in the pipeline.

Refer to the relief sizing coefficients in Table 16 and the Capacity Information section to determine the required external relief valve capacity.

Capacity Information

Note

Flow capacities are laboratory verified; therefore, regulators may be sized for 100% of the published flow capacities. It is not necessary to reduce published capacities.

Tables 6 to 15 show the natural gas regulating capacities of the Type 627 at selected inlet 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 determine equivalent capacities for air, propane, butane or nitrogen, multiply the capacity by the following appropriate conversion factor: 0.775 for air, 0.628 for propane, 0.548 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.

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 above.

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

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

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 Table 16 or 17

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

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

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

where,

- Q = gas flow rate, SCFH
- G = gas specific gravity of the gas
- T = absolute temperature of gas at inlet, °Rankine
- C_g = gas sizing coefficient
- P₁ = absolute inlet pressure, psia (P₁ gauge + 14.7)
- C₁ = flow coefficient
- ΔP = pressure drop across the regulator, psi

Then, if capacity is desired in normal cubic meters per hour (Nm³/h) at 0°C and 1.01325 bar, multiply SCFH by 0.0268.

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Table 6. Types 627, 627M and 627MR Capacities for 3/4 NPT Body Size⁽¹⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽²⁾ , psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | |
|--|---|--|---|--------------|--------------|--------------|--------------|--------------|--------------|
| | | | Orifice Size, In. / mm | | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 5 / 0.34 ⁽³⁾ | 10 / 0.69 | 170 / 4.56 | 320 / 8.58 | 700 / 18.8 | 1060 / 28.4 | 1540 / 41.3 | 1900 / 50.9 | |
| | | 15 / 1.0 | 240 / 6.43 | 330 / 8.84 | 810 / 21.7 | 1300 / 34.8 | 2150 / 57.6 | 3350 / 89.8 | |
| | | 20 / 1.4 | 290 / 7.77 | 460 / 12.3 | 1140 / 30.6 | 1800 / 48.2 | 3050 / 81.7 | 4350 / 117 | |
| | | 30 / 2.1 | 380 / 10.2 | 610 / 16.3 | 1530 / 41.0 | 2490 / 66.7 | 3880 / 104 | 6850 / 184 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2550 / 68.3 | 4240 / 114 | 6270 / 168 | 7370 / 198 | |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 3020 / 80.9 | 5100 / 137 | 6620 / 177 | 7700 / 206 | |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 3800 / 102 | 5980 / 160 | 7440 / 199 | 7900 / 212 | |
| | 10 / 0.69 | 15 / 1.0 | 210 / 5.63 | 320 / 8.6 | 800 / 21.4 | 1290 / 34.6 | 2100 / 56.3 | 3300 / 88.4 | |
| | | 20 / 1.4 | 280 / 7.50 | 455 / 12.2 | 1130 / 30.3 | 1790 / 48.0 | 3000 / 80.4 | 4300 / 115 | |
| | | 30 / 2.1 | 380 / 10.2 | 610 / 16.3 | 1530 / 41.0 | 2480 / 66.5 | 3860 / 103 | 6830 / 183 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2550 / 68.3 | 4240 / 114 | 6270 / 168 | 7370 / 198 | |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 3020 / 80.9 | 5100 / 137 | 6620 / 177 | 7700 / 206 | |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 3800 / 102 | 5980 / 160 | 7440 / 199 | 7900 / 212 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5700 / 153 | 7130 / 191 | 8180 / 219 | 8200 / 220 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 6970 / 187 | 7250 / 194 | 8200 / 220 | 8300 / 222 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 8000 / 214 | 8050 / 216 | 8250 / 221 | | |
| | | 500 / 34.5 | 4010 / 107 | 8090 / 217 | 8060 / 216 | 8100 / 217 | | | |
| | | 750 / 51.7 | 4400 / 118 | 8930 / 239 | 8950 / 240 | | | | |
| | | 1000 / 69.0 | 4450 / 119 | 10,300 / 276 | | | | | |
| | | 1250 / 86.2 | 4540 / 122 | | | | | | |
| | | 1500 / 103 | 4880 / 131 | | | | | | |
| | | 1750 / 121 | 5230 / 140 | | | | | | |
| | 2000 / 138 | 5900 / 158 | | | | | | | |
| | 20 / 1.4 | 30 / 2.1 | 350 / 9.38 | 620 / 16.6 | 1400 / 37.5 | 2490 / 66.7 | 4360 / 117 | 6290 / 169 | |
| | | 50 / 3.4 | 550 / 14.7 | 1000 / 26.8 | 2280 / 61.1 | 4010 / 107 | 7870 / 211 | 8500 / 228 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2640 / 70.8 | 4680 / 125 | 8340 / 224 | 8940 / 240 | |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 3980 / 107 | 7220 / 193 | 11,500 / 308 | 12,600 / 338 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,400 / 279 | 12,100 / 324 | 13,100 / 351 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7340 / 197 | 12,000 / 322 | 13,200 / 354 | 13,700 / 367 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 13,000 / 348 | 15,600 / 418 | | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 15,100 / 405 | | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 14,200 / 381 | | | | |
| | | 1000 / 69.0 | 7300 / 196 | 14,600 / 391 | | | | | |
| | | 1250 / 86.2 | 7500 / 201 | | | | | | |
| | | 1500 / 103 | 7800 / 209 | | | | | | |
| | | 1750 / 121 | 8400 / 225 | | | | | | |
| | | 2000 / 138 | 8600 / 230 | | | | | | |
| | | 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 40 / 2.8 | 60 / 4.1 | 610 / 16.3 | 1090 / 29.2 | 2530 / 67.8 | 4350 / 117 | 8140 / 218 |
| | 75 / 5.2 | | | 760 / 20.4 | 1370 / 36.7 | 3080 / 82.5 | 5510 / 148 | 10,300 / 276 | 13,600 / 364 |
| | 100 / 6.9 | | | 990 / 26.5 | 1790 / 48.0 | 4070 / 109 | 7220 / 193 | 13,200 / 354 | 15,300 / 410 |
| | 150 / 10.3 | | | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,400 / 279 | 17,400 / 466 | 18,200 / 488 |
| | 200 / 13.8 | | | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,500 / 362 | 18,000 / 482 | 18,500 / 496 |
| 300 / 20.7 | 2700 / 72.4 | | | 4910 / 132 | 11,200 / 300 | 18,500 / 496 | 20,000 / 536 | 20,700 / 555 | |
| 500 / 34.5 | 4400 / 118 | | | 8090 / 217 | 18,300 / 490 | 24,000 / 643 | 27,000 / 724 | | |
| 750 / 51.7 | 6600 / 177 | | | 12,000 / 322 | 23,000 / 616 | 24,200 / 649 | | | |
| 1000 / 69.0 | 8700 / 233 | | | 16,000 / 429 | 24,400 / 654 | | | | |
| 1250 / 86.2 | 11,000 / 295 | | | 18,000 / 482 | | | | | |
| 1500 / 103 | 12,000 / 322 | | | 21,000 / 563 | | | | | |
| 1750 / 121 | 13,000 / 348 | | | | | | | | |
| 2000 / 138 | 14,000 / 375 | | | | | | | | |

— Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.
 — Shaded areas indicate where a Type 627MR regulator should not be used because unbalanced forces can cause the internal relief valve to start-to-discharge during normal operation. Refer to Table 4.
 1. Capacity is based on 20% droop unless otherwise noted below.
 2. For pressure settings under 10 psig / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so the setpoint adjustment can be obtained.
 3. For 5 psig / 0.34 bar pressure setpoint the droop is 2 psig / 0.14 bar.

- continued -

Table 6. Types 627, 627M and 627MR Capacities for 3/4 NPT Body Size⁽¹⁾ (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | |
|--|-------------------------------------|----------------------------|---|---------------|---------------|---------------|---------------|---------------|
| | | | Orifice Size, In. / mm | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 |
| 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 60 / 4.1 | 75 / 5.2 | 700 / 18.8 | 1230 / 33.0 | 2760 / 74.0 | 4750 / 127 | 8620 / 231 | 15,200 / 407 |
| | | 100 / 6.9 | 970 / 26.0 | 1740 / 46.6 | 4010 / 107 | 6990 / 187 | 12,800 / 343 | 17,300 / 464 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,300 / 276 | 18,600 / 498 | 23,000 / 616 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,500 / 362 | 21,600 / 579 | 27,400 / 734 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,800 / 531 | 26,100 / 699 | 30,100 / 807 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 28,100 / 753 | 28,900 / 775 | 33,400 / 895 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 26,300 / 705 | 30,000 / 804 | 37,000 / 992 | 45,000 / 1206 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 30,000 / 804 | 31,200 / 836 | 37,400 / 1002 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 31,600 / 847 | 34,000 / 911 | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 30,400 / 815 | 36,000 / 965 | | |
| | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 34,000 / 911 | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | |
| | 80 / 5.5 | 100 / 6.9 | 900 / 24.1 | 1600 / 42.9 | 3750 / 101 | 6490 / 174 | 12,200 / 327 | 17,300 / 464 |
| | | 150 / 10.3 | 1410 / 37.8 | 2580 / 69.1 | 5850 / 157 | 10,200 / 273 | 19,600 / 525 | 25,700 / 689 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,500 / 362 | 25,400 / 681 | 29,300 / 785 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,800 / 531 | 32,700 / 876 | 33,500 / 898 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 31,900 / 855 | 36,000 / 965 | 36,700 / 984 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 35,000 / 938 | 44,000 / 1179 | 46,000 / 1233 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 38,000 / 1018 | 56,200 / 1506 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 37,000 / 992 | 40,000 / 1072 | | |
| 1500 / 103 | | 13,000 / 348 | 22,000 / 590 | 38,000 / 1018 | 44,000 / 1179 | | | |
| 1750 / 121 | | 15,000 / 402 | 25,000 / 670 | 42,000 / 1126 | | | | |
| 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 100 / 6.9 | 150 / 10.3 | 1170 / 31.4 | 2510 / 67.3 | 5540 / 148 | 8710 / 233 | 16,000 / 429 | 20,300 / 544 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 12,000 / 322 | 21,300 / 571 | 25,700 / 689 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,400 / 520 | 30,000 / 804 | 31,700 / 850 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 31,800 / 852 | 39,000 / 1045 | 39,200 / 1051 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 39,000 / 1045 | 39,200 / 1051 | 45,900 / 1230 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 40,000 / 1072 | 40,500 / 1085 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 39,000 / 1045 | 40,500 / 1085 | 41,000 / 1099 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 43,000 / 1152 | 44,000 / 1179 | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 45,000 / 1206 | 47,000 / 1260 | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 46,000 / 1233 | | | |
| | 125 / 8.6 | 150 / 10.3 | 1250 / 33.5 | 2340 / 62.7 | 5340 / 143 | 9130 / 245 | 15,700 / 421 | 20,800 / 557 |
| | | 200 / 13.8 | 1830 / 49.0 | 3320 / 89.0 | 7550 / 202 | 13,160 / 353 | 22,500 / 603 | 28,600 / 766 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,800 / 531 | 32,700 / 876 | 38,000 / 1018 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,500 / 871 | 43,800 / 1174 | 51,700 / 1386 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,300 / 1294 | 49,900 / 1337 | 71,400 / 1914 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 50,000 / 1340 | 52,900 / 1418 | 72,000 / 1930 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 53,000 / 1420 | 58,000 / 1554 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 51,000 / 1367 | 56,000 / 1501 | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 52,000 / 1394 | 60,000 / 1608 | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 53,000 / 1420 | | | |
| | 150 / 10.3 | 200 / 13.8 | 1760 / 47.2 | 3200 / 85.8 | 7290 / 195 | 12,500 / 335 | 21,400 / 574 | 30,600 / 820 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 17,200 / 461 | 34,700 / 930 | 46,000 / 1233 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,500 / 871 | 48,900 / 1311 | 59,700 / 1600 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,300 / 1294 | 59,000 / 1581 | 72,000 / 1930 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,100 / 1718 | 81,100 / 2173 | 85,000 / 2278 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 68,000 / 1822 | 90,000 / 2412 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 72,000 / 1930 | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 77,000 / 2064 | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | |

Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.
 Shaded areas indicate where a Type 627MR regulator should not be used because unbalanced forces can cause the internal relief valve to start-to-discharge during normal operation. Refer to Table 4.

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

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Table 7. Types 627, 627M, 627MR, 627BM, 627BMR, 627OSX and 627BMOSX Capacities for NPS 1 / DN 25 Body Size⁽¹⁾⁽⁴⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽²⁾ , psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | |
|--|---|----------------------------|---|--------------|--------------|---------------|---------------|---------------|---------------------------------|
| | | | Orifice Size, In. / mm | | | | | | |
| | | | For All Types Except Types 627BM and 627BMR | | | | | | For Types 627BM and 627BMR only |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | 9/16 / 14.3 |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 5 / 0.34 ⁽³⁾ | 10 / 0.69 | 170 / 4.6 | 330 / 8.8 | 710 / 19.0 | 1100 / 29.5 | 1900 / 50.9 | 2500 / 67.0 | 1570 / 42.1 |
| | | 15 / 1.0 | 240 / 6.4 | 390 / 10.5 | 890 / 23.9 | 1600 / 42.9 | 2500 / 67.0 | 3350 / 89.8 | 1780 / 47.7 |
| | | 20 / 1.4 | 290 / 7.8 | 500 / 13.4 | 1160 / 31.1 | 2060 / 55.2 | 3400 / 91.1 | 4450 / 119 | 1980 / 53.0 |
| | | 30 / 2.1 | 380 / 10.2 | 670 / 18.0 | 1560 / 41.8 | 2800 / 75.0 | 4750 / 127 | 6900 / 185 | 2940 / 78.8 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2600 / 69.7 | 4710 / 126 | 8140 / 218 | 13,700 / 367 | 5790 / 155 |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 3150 / 84.4 | 5710 / 153 | 9790 / 262 | 14,500 / 389 | 8020 / 215 |
| | 10 / 0.7 | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 4070 / 109 | 7310 / 196 | 12,500 / 335 | 16,000 / 429 | 11,700 / 313 |
| | | 15 / 1.0 | 210 / 5.6 | 375 / 10.1 | 880 / 23.6 | 1590 / 42.6 | 2480 / 66.5 | 3300 / 88.4 | 2880 / 77.2 |
| | | 20 / 1.4 | 280 / 7.5 | 490 / 13.1 | 1150 / 30.8 | 2050 / 54.9 | 3380 / 90.6 | 4410 / 118 | 3750 / 100 |
| | | 30 / 2.1 | 380 / 10.2 | 670 / 18.0 | 1560 / 41.8 | 2800 / 75.0 | 4720 / 126 | 6840 / 183 | 5490 / 147 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2600 / 69.7 | 4710 / 126 | 8140 / 218 | 13,700 / 367 | 10,700 / 287 |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 3150 / 84.4 | 5710 / 153 | 9790 / 262 | 14,500 / 389 | 13,500 / 362 |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 4070 / 109 | 7310 / 196 | 12,500 / 335 | 16,000 / 429 | 18,300 / 490 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 17,000 / 456 | 18,000 / 482 | 27,900 / 747 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 18,000 / 482 | 18,500 / 496 | 28,700 / 769 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,800 / 531 | 20,000 / 536 | | 30,400 / 814 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 15,700 / 421 | 20,000 / 536 | | | 31,900 / 855 |
| | | 750 / 51.7 | 5400 / 145 | 12,000 / 322 | 18,000 / 482 | | | | 32,100 / 860 |
| | | 1000 / 69.0 | 5800 / 155 | 14,000 / 375 | | | | | 32,400 / 868 |
| | | 1250 / 86.2 | 6300 / 169 | | | | | | 33,100 / 887 |
| | 1500 / 103 | 6600 / 177 | | | | | | 33,800 / 906 | |
| | 1750 / 121 | 6800 / 182 | | | | | | | |
| | 2000 / 138 | 7600 / 204 | | | | | | | |
| | 20 / 1.4 | 30 / 2.1 | 350 / 9.4 | 620 / 16.6 | 1450 / 38.9 | 2580 / 69.1 | 4360 / 117 | 6290 / 169 | 6900 / 185 |
| | | 50 / 3.4 | 550 / 14.7 | 1000 / 26.8 | 2280 / 61.1 | 4090 / 110 | 7870 / 211 | 14,100 / 378 | 12,500 / 335 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2640 / 70.8 | 4750 / 127 | 9690 / 260 | 14,500 / 389 | 15,400 / 413 |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 4070 / 109 | 7310 / 196 | 13,900 / 373 | 23,300 / 624 | 26,000 / 697 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 17,700 / 474 | 34,200 / 917 | 39,300 / 1053 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 26,600 / 713 | 39,100 / 1048 | 40,700 / 1090 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 37,000 / 992 | | 43,600 / 1168 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | | | 45,600 / 1222 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 23,600 / 632 | | | | 46,100 / 1235 |
| | | 1000 / 69.0 | 8900 / 239 | 16,000 / 429 | | | | | 46,500 / 1246 |
| | | 1250 / 86.2 | 10,000 / 268 | | | | | | 46,600 / 1248 |
| | | 1500 / 103 | 10,400 / 279 | | | | | | 46,600 / 1248 |
| | | 1750 / 121 | 12,000 / 322 | | | | | | |
| 2000 / 138 | | 14,000 / 375 | | | | | | | |
| 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 40 / 2.8 | 60 / 4.1 | 610 / 16.3 | 1090 / 29.2 | 2530 / 67.8 | 4510 / 121 | 9290 / 249 | 9420 / 252 | 14,400 / 386 |
| | | 75 / 5.2 | 760 / 20.4 | 1370 / 36.7 | 3080 / 82.5 | 5640 / 151 | 10,800 / 289 | 16,500 / 442 | 18,800 / 504 |
| | | 100 / 6.9 | 990 / 26.5 | 1790 / 48.0 | 4070 / 109 | 7310 / 196 | 14,700 / 394 | 21,900 / 587 | 26,000 / 697 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 20,500 / 549 | 34,500 / 925 | 40,500 / 1085 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 27,100 / 726 | 46,400 / 1244 | 48,100 / 1289 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 40,100 / 1075 | 67,100 / 1798 | 63,400 / 1698 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 63,900 / 1713 | | 66,800 / 1790 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 39,400 / 1056 | | | 69,000 / 1849 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | | | | 71,100 / 1905 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | | | | | 71,500 / 1915 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | | | | | 71,900 / 1926 |
| | | 1750 / 121 | 15,000 / 402 | | | | | | |
| | | 2000 / 138 | 17,000 / 456 | | | | | | |

— Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.
 — Shaded areas indicate where a Type 627MR regulator should not be used because unbalanced forces can cause the internal relief valve to start-to-discharge during normal operation. Refer to Table 4.
 1. Capacity is based on 20% droop unless otherwise noted below.
 2. For pressure settings under 10 psig / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so the setpoint adjustment can be obtained.
 3. For 5 psig / 0.34 bar pressure setpoint the droop is 2 psig / 0.14 bar.
 4. Capacity is reduced by 10% for Types 627OSX and 627BMOSX.

- continued -

Table 7. Types 627, 627M, 627MR, 627BM, 627BMR, 627OSX and 627BMOSX Capacities for NPS 1 / DN 25 Body Size⁽¹⁾⁽²⁾ (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | | |
|--|-------------------------------------|----------------------------|---|---------------|---------------|----------------|----------------|----------------|----------------|---------------------------------|
| | | | Orifice Size, In. / mm | | | | | | | |
| | | | For All Types Except Types 627BM and 627BMR | | | | | | | For Types 627BM and 627BMR only |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | 9/16 / 14.3 | |
| 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 60 / 4.1 | 75 / 5.2 | 700 / 18.8 | 1230 / 33.0 | 2760 / 74.0 | 4880 / 131 | 8630 / 231 | 16,100 / 431 | 15,200 / 407 | |
| | | 100 / 6.9 | 970 / 26.0 | 1740 / 46.6 | 4010 / 107 | 7000 / 188 | 13,000 / 348 | 19,300 / 517 | 21,500 / 576 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 18,900 / 507 | 32,800 / 879 | 34,100 / 914 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 24,000 / 643 | 42,200 / 1131 | 46,600 / 1248 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 32,500 / 871 | 69,100 / 1852 | 69,900 / 1873 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 64,000 / 1715 | 94,300 / 2527 | 86,700 / 2323 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 43,380 / 1163 | 66,000 / 1769 | 130,000 / 3484 | 90,800 / 2433 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 50,300 / 1348 | 67,700 / 1814 | | 95,000 / 2545 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 57,000 / 1528 | | | 94,400 / 2529 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 63,000 / 1688 | | | 93,700 / 2510 | |
| | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | | | |
| | 80 / 5.5 | 100 / 6.9 | 900 / 24.1 | 1600 / 42.9 | 3750 / 101 | 6650 / 178 | 12,200 / 327 | 18,600 / 498 | 15,200 / 407 | |
| | | 150 / 10.3 | 1410 / 37.8 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 21,100 / 565 | 33,600 / 900 | 30,900 / 828 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 28,400 / 761 | 44,100 / 1182 | 46,600 / 1248 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 43,300 / 1160 | 75,400 / 2021 | 69,900 / 1873 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 71,600 / 1919 | 110,000 / 2948 | 93,700 / 2510 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 105,500 / 2827 | 135,000 / 3618 | 105,400 / 2824 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,900 / 1739 | 118,000 / 3162 | | 117,100 / 3137 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | | | 118,800 / 3183 | |
| 1500 / 103 | | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | | 120,500 / 3228 | | |
| 1750 / 121 | | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | | |
| 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | | | | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 100 / 6.9 | 150 / 10.3 | 1170 / 31.4 | 2510 / 67.3 | 5540 / 148 | 8710 / 233 | 16,000 / 429 | 24,000 / 643 | 26,200 / 702 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 12,000 / 322 | 21,300 / 571 | 34,100 / 914 | 37,000 / 991 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,400 / 520 | 30,100 / 807 | 53,200 / 1426 | 58,600 / 1570 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 31,800 / 852 | 66,500 / 1782 | 83,900 / 2249 | 95,300 / 2553 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 47,300 / 1268 | 95,300 / 2554 | 117,000 / 3136 | 116,700 / 3126 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 59,700 / 1600 | 100,000 / 2680 | | 138,200 / 3702 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 72,000 / 1930 | 114,000 / 3055 | | 144,300 / 3866 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 86,000 / 2305 | | | 150,400 / 4029 | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 95,000 / 2546 | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | |
| | 125 / 8.6 | 150 / 10.3 | 1250 / 33.5 | 2340 / 62.7 | 5340 / 143 | 9470 / 254 | 15,700 / 421 | 20,800 / 557 | 27,800 / 745 | |
| | | 200 / 13.8 | 1830 / 49.0 | 3320 / 89.0 | 7550 / 202 | 13,400 / 359 | 28,100 / 753 | 32,800 / 879 | 40,400 / 1082 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 36,300 / 973 | 52,600 / 1410 | 65,500 / 1755 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 70,800 / 1897 | 109,000 / 2921 | 113,000 / 3027 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 104,000 / 2787 | 158,000 / 4234 | 137,900 / 3694 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,800 / 1737 | 138,000 / 3698 | 160,000 / 4288 | 162,700 / 4359 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | 145,000 / 3886 | | 167,000 / 4474 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | | 171,300 / 4589 | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 112,000 / 3002 | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | |
| | 150 / 10.3 | 200 / 13.8 | 1760 / 47.2 | 3200 / 85.8 | 7290 / 195 | 12,900 / 346 | 21,400 / 574 | 33,600 / 900 | 43,200 / 1157 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 17,200 / 461 | 40,100 / 1075 | 55,900 / 1498 | 70,700 / 1894 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 70,300 / 1884 | 111,000 / 2975 | 122,200 / 3274 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 104,000 / 2787 | 160,000 / 4288 | 157,000 / 4206 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,800 / 1737 | 138,000 / 3698 | 162,000 / 4342 | 191,800 / 5138 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | 150,000 / 4020 | | 196,800 / 5272 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | | 201,900 / 5409 | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 112,000 / 3002 | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | | |

[Blank] — Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.
 [Shaded] — Shaded areas indicate where a Type 627MR regulator should not be used because unbalanced forces can cause the internal relief valve to start-to-discharge during normal operation. Refer to Table 4.
 1. Capacity is based on 20% droop unless otherwise noted below.
 2. Capacity is reduced by 10% for Types 627OSX and 627BMOSX.

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Table 8. Type 627 Capacities for NPS 1-1/4 / DN 32 Body Size⁽¹⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽²⁾ , psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | |
|--|--|----------------------------|---|--------------|---------------|---------------|----------------|----------------|---------------|
| | | | Orifice Size, In. / mm | | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 5 / 0.34 ⁽³⁾ | 10 / 0.69 | 200 / 5.4 | 370 / 10.1 | 820 / 22.1 | 1010 / 27.2 | 1380 / 37.4 | 1790 / 48.4 | |
| | | 15 / 1.0 | 270 / 7.3 | 450 / 12.2 | 1010 / 27.4 | 1280 / 34.6 | 1970 / 53.2 | 2340 / 63.2 | |
| | | 20 / 1.4 | 300 / 8.1 | 530 / 14.4 | 1200 / 32.3 | 1620 / 43.6 | 2320 / 62.5 | 3220 / 86.8 | |
| | | 30 / 2.1 | 370 / 10.2 | 670 / 18.1 | 1520 / 41 | 2100 / 56.6 | 3170 / 85.5 | 9420 / 253.6 | |
| | | 60 / 4.1 | 620 / 16.7 | 940 / 25.3 | 2450 / 66.1 | 3270 / 88 | 6750 / 181.6 | 6080 / 163.6 | |
| | | 75 / 5.2 | 730 / 19.7 | 1150 / 31.2 | 2700 / 72.8 | 3920 / 105.6 | 11000 / 298.3 | 5650 / 152.2 | |
| | 10 / 0.7 | 100 / 6.9 | 830 / 22.4 | 1280 / 34.7 | 3570 / 96.1 | 5070 / 136.6 | 9000 / 242.2 | 7390 / 198.9 | |
| | | 15 / 1.0 | 220 / 6.1 | 410 / 11 | 830 / 22.5 | 1310 / 35.3 | 3130 / 84.3 | 5030 / 135.5 | |
| | | 20 / 1.4 | 280 / 7.7 | 510 / 13.9 | 1090 / 29.6 | 1590 / 42.9 | 3740 / 100.7 | 6920 / 186.2 | |
| | | 30 / 2.1 | 360 / 9.8 | 630 / 17.1 | 1370 / 37.1 | 1910 / 51.4 | 3140 / 84.7 | 8760 / 235.7 | |
| | | 60 / 4.1 | 560 / 15.3 | 720 / 19.4 | 1800 / 48.7 | 2620 / 70.6 | 6360 / 171.2 | 7430 / 200.1 | |
| | | 75 / 5.2 | 640 / 17.3 | 860 / 23.2 | 2660 / 71.7 | 3050 / 82.2 | 6840 / 184.1 | 7600 / 204.7 | |
| | | 100 / 6.9 | 900 / 24.5 | 1730 / 46.8 | 3670 / 98.8 | 4680 / 126 | 8130 / 218.7 | 24600 / 664 | |
| | | 150 / 10.3 | 1150 / 31 | 1990 / 53.5 | 5450 / 146.7 | 8400 / 226.2 | 21200 / 570.7 | 10200 / 275.6 | |
| | 20 / 1.4 | 200 / 13.8 | 1760 / 47.5 | 2870 / 77.3 | 7390 / 198.9 | 11600 / 312.2 | 27500 / 742.1 | 12800 / 346.2 | |
| | | 300 / 20.7 | 2710 / 72.9 | 4880 / 131.4 | 10700 / 288.8 | 16200 / 438.4 | 28100 / 758 | | |
| | | 30 / 2.1 | 380 / 10.3 | 670 / 18.1 | 1360 / 36.8 | 2220 / 59.9 | 4980 / 134.2 | 9160 / 246.6 | |
| | | 60 / 4.1 | 550 / 15 | 980 / 26.5 | 2130 / 57.5 | 2710 / 73 | 7820 / 210.6 | 13100 / 354.6 | |
| | | 75 / 5.2 | 640 / 17.3 | 1150 / 31.1 | 2470 / 66.7 | 3590 / 96.7 | 8940 / 240.5 | 15400 / 416.8 | |
| | | 100 / 6.9 | 990 / 26.7 | 1760 / 47.5 | 3610 / 97.3 | 6210 / 167.2 | 11400 / 308.9 | 24600 / 662.2 | |
| | | 150 / 10.3 | 1410 / 38 | 2540 / 68.3 | 5680 / 153 | 9010 / 242.6 | 21200 / 571.7 | 13400 / 361.6 | |
| | | 200 / 13.8 | 1820 / 49 | 3300 / 88.9 | 7400 / 199.1 | 11900 / 321.4 | 27500 / 741.1 | 14300 / 386.2 | |
| | 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 40 / 2.8 | 300 / 20.7 | 2700 / 72.7 | 4950 / 133.3 | 10800 / 290.6 | 18200 / 492.1 | 30000 / 807.9 | |
| | | | 60 / 4.1 | 650 / 17.5 | 1050 / 28.5 | 2540 / 68.5 | 4060 / 109.4 | 9200 / 248.6 | 16300 / 439.3 |
| 75 / 5.2 | | | 790 / 21.3 | 1330 / 36 | 3040 / 81.8 | 4820 / 129.9 | 11000 / 297.3 | 19800 / 533 | |
| 100 / 6.9 | | | 1020 / 27.5 | 1720 / 46.5 | 3860 / 103.8 | 6150 / 165.6 | 13500 / 363.6 | 25500 / 688.4 | |
| 150 / 10.3 | | | 1470 / 39.8 | 2510 / 67.8 | 5580 / 150.3 | 9300 / 250.3 | 20300 / 547.8 | 28200 / 760.7 | |
| 200 / 13.8 | | | 1920 / 51.8 | 3300 / 88.9 | 7130 / 192 | 11900 / 321.5 | 26400 / 710.2 | 46400 / 1249.7 | |
| 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 60 / 4.1 | 300 / 20.7 | 2830 / 76.2 | 4860 / 130.8 | 10800 / 292.5 | 18000 / 484.8 | 39600 / 1067.7 | 63400 / 1706.6 | |
| | | 75 / 5.2 | 720 / 19.5 | 1310 / 35.4 | 3030 / 81.6 | 4920 / 132.5 | 10800 / 293.1 | 18400 / 497.1 | |
| | | 100 / 6.9 | 960 / 25.9 | 1740 / 46.8 | 3930 / 105.8 | 6190 / 166.6 | 13800 / 372.9 | 23700 / 638.3 | |
| | | 150 / 10.3 | 1380 / 37.3 | 2480 / 66.9 | 5480 / 147.7 | 9020 / 242.9 | 20000 / 539.1 | 34200 / 922.1 | |
| | 80 / 5.5 | 200 / 13.8 | 1810 / 48.8 | 3160 / 85.2 | 6750 / 181.7 | 11700 / 316.1 | 26200 / 705.8 | 45300 / 1219.3 | |
| | | 300 / 20.7 | 2690 / 72.4 | 4960 / 133.5 | 10600 / 285.2 | 17600 / 474.6 | 39000 / 1050 | 68400 / 1841.8 | |
| | | 100 / 6.9 | 900 / 24.2 | 1670 / 45 | 3720 / 100.2 | 6140 / 165.4 | 13400 / 362.6 | 22900 / 618.2 | |
| | | 150 / 10.3 | 1360 / 36.7 | 2510 / 67.6 | 5080 / 136.8 | 8020 / 216 | 19200 / 516.7 | 34300 / 924.2 | |
| | | 200 / 13.8 | 1790 / 48.2 | 3270 / 88.1 | 5920 / 159.5 | 11300 / 306.6 | 25800 / 694.3 | 44900 / 1210.3 | |
| | | 300 / 20.7 | 2660 / 71.6 | 4940 / 133.1 | 10400 / 282.1 | 17200 / 465.1 | 39000 / 1049.2 | 67600 / 1821.1 | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 100 / 6.9 | 150 / 10.3 | 1380 / 37.2 | 2540 / 68.6 | 5460 / 147 | 8790 / 236.6 | 18600 / 501.1 | 31100 / 837.4 | |
| | | 200 / 13.8 | 1850 / 49.8 | 2720 / 73.3 | 5930 / 159.7 | 8870 / 238.7 | 24000 / 646.4 | 39900 / 1075 | |
| | | 300 / 20.7 | 2750 / 74.2 | 4690 / 126.3 | 9850 / 265.2 | 14700 / 397 | 36700 / 988.7 | 55200 / 1485.2 | |
| | 125 / 8.6 | 150 / 10.3 | 1390 / 37.6 | 2480 / 66.7 | 5520 / 148.6 | 8660 / 233.1 | 18700 / 505.2 | 30900 / 832.1 | |
| | | 200 / 13.8 | 1860 / 50.2 | 3190 / 85.8 | 6740 / 181.3 | 11500 / 310.5 | 24500 / 661.7 | 39800 / 1072.3 | |
| | | 300 / 20.7 | 2720 / 73.3 | 4900 / 131.9 | 9830 / 264.7 | 15600 / 422 | 37300 / 1003.9 | 58300 / 1568.4 | |
| | 150 / 10.3 | 200 / 13.8 | 1810 / 48.7 | 3120 / 84 | 7220 / 194.5 | 11400 / 306.8 | 24000 / 648 | 39600 / 1066.8 | |
| | | 300 / 20.7 | 2730 / 73.5 | 4890 / 131.8 | 10600 / 286.1 | 16100 / 433.3 | 36400 / 979.6 | 60900 / 1639.4 | |

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 settings under 10 psig / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so the setpoint adjustment can be obtained.

3. For 5 psig / 0.34 bar pressure setpoint the droop is 2 psig / 0.14 bar.

Table 9. Type 627 Capacities for NPS 2 / DN 50 Body Size⁽¹⁾⁽⁴⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽²⁾ , psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | |
|--|---|----------------------------|---|--------------|--------------|--------------|---------------|---------------|
| | | | Orifice Size, In. / mm | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 5 / 0.34 ⁽³⁾ | 10 / 0.69 | 170 / 4.6 | 330 / 8.8 | 710 / 19.0 | 1080 / 28.9 | 1700 / 45.6 | 2400 / 64.3 |
| | | 15 / 1.0 | 240 / 6.4 | 390 / 10.5 | 890 / 23.9 | 1250 / 33.5 | 1900 / 50.9 | 2700 / 72.4 |
| | | 20 / 1.4 | 290 / 7.8 | 500 / 13.4 | 1160 / 31.1 | 1900 / 50.9 | 2650 / 71.0 | 3900 / 105 |
| | | 30 / 2.1 | 380 / 10.2 | 670 / 18.0 | 1560 / 41.8 | 2800 / 75.0 | 3680 / 98.6 | 6500 / 174 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2600 / 69.7 | 4750 / 127 | 7250 / 194 | 17,800 / 477 |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 3150 / 84.4 | 5700 / 153 | 8060 / 216 | 22,400 / 600 |
| | 10 / 0.69 | 100 / 6.9 | 990 / 26.5 | 1790 / 48.0 | 4070 / 109 | 7310 / 196 | 16,200 / 434 | 28,700 / 769 |
| | | 15 / 1.0 | 210 / 5.6 | 375 / 10.1 | 880 / 23.6 | 1220 / 32.7 | 1860 / 49.8 | 2670 / 71.6 |
| | | 20 / 1.4 | 280 / 7.5 | 490 / 13.1 | 1150 / 30.8 | 1880 / 50.4 | 2610 / 69.9 | 3830 / 103 |
| | | 30 / 2.1 | 380 / 10.2 | 670 / 18.0 | 1560 / 41.8 | 2760 / 74.0 | 3640 / 97.6 | 6460 / 173 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2600 / 69.7 | 4750 / 127 | 7250 / 194 | 17,800 / 477 |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 3150 / 84.4 | 5700 / 153 | 8060 / 216 | 22,400 / 600 |
| | | 100 / 6.9 | 990 / 26.5 | 1790 / 48.0 | 4070 / 109 | 7310 / 196 | 16,200 / 434 | 28,700 / 769 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 23,300 / 624 | 25,900 / 694 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 22,700 / 608 | 24,000 / 643 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 10,300 / 276 | 12,800 / 343 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 21,000 / 563 | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | |
| | | 1250 / 86.2 | 11,000 / 295 | | | | | |
| | 1500 / 103 | 13,000 / 348 | | | | | | |
| | 1750 / 121 | 15,000 / 402 | | | | | | |
| | 2000 / 138 | 6300 / 169 | | | | | | |
| | 20 / 1.4 | 30 / 2.1 | 350 / 9.4 | 620 / 16.6 | 1450 / 38.9 | 2350 / 63.0 | 4300 / 115 | 6110 / 164 |
| | | 50 / 3.4 | 550 / 14.7 | 1000 / 26.8 | 2280 / 61.1 | 4040 / 108 | 7100 / 190 | 12,800 / 343 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2640 / 70.8 | 4750 / 127 | 8400 / 225 | 15,700 / 421 |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 4070 / 109 | 7310 / 196 | 16,200 / 434 | 28,700 / 769 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 23,300 / 624 | 29,000 / 777 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 24,000 / 643 | 33,000 / 884 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 19,600 / 525 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | |
| | | 1250 / 86.2 | 11,000 / 295 | | | | | |
| | | 1500 / 103 | 13,000 / 348 | | | | | |
| | | 1750 / 121 | 15,000 / 402 | | | | | |
| 2000 / 138 | | 6300 / 169 | | | | | | |
| 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 40 / 2.8 | 60 / 4.1 | 610 / 16.3 | 1090 / 29.2 | 2530 / 67.8 | 4370 / 117 | 8680 / 233 | 13,300 / 356 |
| | | 75 / 5.2 | 760 / 20.4 | 1370 / 36.7 | 3080 / 82.5 | 5540 / 148 | 11,900 / 319 | 19,300 / 517 |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 4070 / 109 | 7310 / 196 | 16,200 / 434 | 25,400 / 681 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 23,300 / 624 | 41,300 / 1107 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 30,400 / 815 | 53,900 / 1445 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 44,600 / 1195 | 46,000 / 1233 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 22,000 / 590 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 28,000 / 750 | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | | | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | | | | |
| | | 1750 / 121 | 15,000 / 402 | | | | | |
| | | 2000 / 138 | 17,000 / 456 | | | | | |

— 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 settings under 10 psig / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so the setpoint adjustment can be obtained.
³ For 5 psig / 0.34 bar pressure setpoint the droop is 2 psig / 0.14 bar.
⁴ Capacity is reduced by 10% for Type 627OSX.

- continued -

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Table 9. Type 627 Capacities for NPS 2 / DN 50 Body Size⁽¹⁾⁽²⁾ (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | |
|--|-------------------------------------|----------------------------|---|---------------|----------------|----------------|----------------|----------------|
| | | | Orifice Size, In. / mm | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 |
| 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 60 / 4.1 | 75 / 5.2 | 700 / 18.8 | 1260 / 33.8 | 2760 / 74.0 | 4900 / 131 | 9000 / 241 | 12,300 / 330 |
| | | 100 / 6.9 | 970 / 26.0 | 1740 / 46.6 | 4010 / 107 | 7000 / 188 | 15,000 / 402 | 20,400 / 547 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 23,300 / 624 | 35,200 / 943 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 30,400 / 815 | 53,900 / 1445 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 44,600 / 1195 | 79,000 / 2117 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 38,800 / 1040 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 53,000 / 1420 | 32,000 / 858 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 43,000 / 1152 | 52,000 / 1394 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 70,000 / 1876 | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 43,000 / 1152 | | |
| | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 26,000 / 697 | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | |
| | 80 / 5.5 | 100 / 6.9 | 900 / 24.1 | 1630 / 43.7 | 3750 / 101 | 6400 / 172 | 12,800 / 343 | 20,400 / 547 |
| | | 150 / 10.3 | 1410 / 37.8 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 23,300 / 624 | 41,300 / 1107 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 30,400 / 815 | 53,900 / 1445 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 44,600 / 1195 | 79,000 / 2117 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 48,000 / 1286 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 87,000 / 2332 | 44,000 / 1179 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | 63,000 / 1688 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 63,000 / 1688 | | |
| 1500 / 103 | | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 86,000 / 2305 | | | |
| 1750 / 121 | | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 100 / 6.9 | 150 / 10.3 | 1170 / 31.4 | 2510 / 67.3 | 5540 / 148 | 8600 / 230 | 16,000 / 429 | 22,000 / 590 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 22,000 / 590 | 33,000 / 884 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 35,000 / 938 | 65,300 / 1750 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 129,000 / 3457 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 108,000 / 2894 | 54,000 / 1447 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,800 / 1737 | 82,000 / 2198 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | 110,000 / 2948 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 112,000 / 3002 | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | |
| | 125 / 8.6 | 150 / 10.3 | 1250 / 33.5 | 2340 / 62.7 | 5340 / 143 | 8600 / 230 | 16,000 / 429 | 24,000 / 643 |
| | | 200 / 13.8 | 1830 / 49.0 | 3320 / 89.0 | 7550 / 202 | 13,700 / 367 | 24,000 / 643 | 36,000 / 965 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 39,000 / 1045 | 65,300 / 1750 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 129,000 / 3457 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 108,000 / 2894 | 59,000 / 1581 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,800 / 1737 | 58,000 / 1554 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | 75,000 / 2010 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 112,000 / 3002 | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | |
| 150 / 10.3 | 200 / 13.8 | 1760 / 47.2 | 3200 / 85.8 | 7290 / 195 | 13,000 / 348 | 24,000 / 643 | 38,000 / 1018 | |
| | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 44,600 / 1195 | 64,200 / 1721 | |
| | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 129,000 / 3457 | |
| | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 108,000 / 2894 | 62,000 / 1662 | |
| | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,800 / 1737 | 144,000 / 3859 | | |
| | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | 81,000 / 2171 | | |
| | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | | |
| | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 112,000 / 3002 | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | |

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. Capacity is reduced by 10% for Type 627OSX.

Table 10. Types 627M, 627MR, 627BM, 627BMR and 627BMOSX Capacities for NPS 2 / DN 50 Body Size^{(1)/(5)}

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽³⁾ , psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | | |
|--|---|----------------------------|---|--------------|--------------|---------------|---------------|---------------|----------------------------|---------------------------------|
| | | | Orifice Size, In. / mm | | | | | | | |
| | | | For All Types Except Types 627BM and 627BMR | | | | | | | For Types 627BM and 627BMR Only |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | 9/16 / 14.3 ⁽²⁾ | |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 5 / 0.34 ⁽⁴⁾ | 10 / 0.69 | 170 / 4.6 | 330 / 8.8 | 710 / 19.0 | 1080 / 28.9 | 1700 / 45.6 | 2400 / 64.3 | 1700 / 45.5 | |
| | | 15 / 1.0 | 240 / 6.4 | 390 / 10.5 | 890 / 23.9 | 1250 / 33.5 | 1900 / 50.9 | 2700 / 72.4 | 2250 / 60.3 | |
| | | 20 / 1.4 | 290 / 7.8 | 500 / 13.4 | 1160 / 31.1 | 1900 / 50.9 | 2650 / 71.0 | 3900 / 105 | 2810 / 75.3 | |
| | | 30 / 2.1 | 380 / 10.2 | 670 / 18.0 | 1560 / 41.8 | 2800 / 75.0 | 3680 / 98.6 | 6500 / 174 | 3800 / 102 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2600 / 69.7 | 4750 / 127 | 7250 / 194 | 15,000 / 402 | 6790 / 182 | |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 3150 / 84.4 | 5700 / 153 | 8060 / 216 | 17,900 / 480 | 11,500 / 308 | |
| | 10 / 0.69 | 15 / 1.0 | 210 / 5.6 | 375 / 10.1 | 880 / 23.6 | 1220 / 32.7 | 1860 / 49.8 | 2670 / 71.6 | 4330 / 116 | |
| | | 20 / 1.4 | 280 / 7.5 | 490 / 13.1 | 1150 / 30.8 | 1880 / 50.4 | 2610 / 69.9 | 3830 / 103 | 5270 / 141 | |
| | | 30 / 2.1 | 380 / 10.2 | 670 / 18.0 | 1560 / 41.8 | 2760 / 74.0 | 3640 / 97.6 | 6460 / 173 | 7150 / 192 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2600 / 69.7 | 4750 / 127 | 7250 / 194 | 15,000 / 402 | 12,700 / 340 | |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 3150 / 84.4 | 5700 / 153 | 8060 / 216 | 17,900 / 480 | 13,400 / 359 | |
| | | 100 / 6.9 | 990 / 26.5 | 1790 / 48.0 | 4070 / 109 | 7310 / 196 | 14,600 / 391 | 23,000 / 616 | 19,400 / 520 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 21,000 / 563 | 33,000 / 884 | 16,800 / 450 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 27,300 / 732 | 43,000 / 1152 | 22,600 / 605 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 40,100 / 1075 | | 34,300 / 919 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | | | 43,800 / 1173 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | | | | 63,400 / 1698 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | | 83,000 / 2224 | |
| | | 1250 / 86.2 | 11,000 / 295 | | | | | | 100,200 / 2684 | |
| | | 1500 / 103 | 13,000 / 348 | | | | | | 117,400 / 3145 | |
| | 1750 / 121 | 15,000 / 402 | | | | | | | | |
| | 2000 / 138 | 17,000 / 456 | | | | | | | | |
| | 20 / 1.4 | 30 / 2.1 | 350 / 9.4 | 620 / 16.6 | 1450 / 38.9 | 2480 / 66.5 | 4300 / 115 | 6110 / 164 | 7800 / 209 | |
| | | 50 / 3.4 | 550 / 14.7 | 1000 / 26.8 | 2280 / 61.1 | 4040 / 108 | 7100 / 190 | 12,800 / 343 | 13,400 / 359 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2640 / 70.8 | 4750 / 127 | 8400 / 225 | 15,000 / 402 | 16,100 / 431 | |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 4070 / 109 | 7310 / 196 | 14,600 / 391 | 23,000 / 616 | 22,400 / 600 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 21,000 / 563 | 33,000 / 884 | 30,200 / 809 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 27,300 / 732 | 43,000 / 1152 | 32,700 / 876 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 40,100 / 1075 | | 37,800 / 1013 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | | | 67,600 / 1811 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | | | | 93,800 / 2513 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | | 120,000 / 3215 | |
| | | 1250 / 86.2 | 11,000 / 295 | | | | | | 140,100 / 3753 | |
| | | 1500 / 103 | 13,000 / 348 | | | | | | 160,300 / 4294 | |
| | | 1750 / 121 | 15,000 / 402 | | | | | | | |
| | | 2000 / 138 | 17,000 / 456 | | | | | | | |
| 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 40 / 2.8 | 60 / 4.1 | 610 / 16.3 | 1090 / 29.2 | 2530 / 67.8 | 4370 / 117 | 8680 / 233 | 13,300 / 356 | 13,000 / 348 | |
| | | 75 / 5.2 | 760 / 20.4 | 1370 / 36.7 | 3080 / 82.5 | 5540 / 148 | 10,700 / 287 | 19,300 / 517 | 18,700 / 501 | |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 4070 / 109 | 7310 / 196 | 14,600 / 391 | 25,400 / 681 | 28,200 / 755 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 21,000 / 563 | 37,000 / 992 | 47,200 / 1264 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 27,300 / 732 | 48,000 / 1286 | 49,500 / 1326 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 40,100 / 1075 | 71,000 / 1903 | 54,100 / 1449 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 65,000 / 1742 | | 93,200 / 2497 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | | | 133,200 / 3568 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | | | | 173,100 / 4637 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | | | | | 198,900 / 5329 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | | | | | 224,600 / 6017 | |
| | | 1750 / 121 | 15,000 / 402 | | | | | | | |
| | | 2000 / 138 | 17,000 / 456 | | | | | | | |

Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.
 Shaded areas indicate where a Type 627MR regulator should not be used because unbalanced forces can cause the internal relief valve to start-to-discharge during normal operation. Refer to Table 4.

- Capacity is based on 20% droop unless otherwise noted below.
- For Types 627BM and 627BMR only.
- For pressure settings under 10 psig / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so the setpoint adjustment can be obtained.
- For 5 psig / 0.34 bar pressure setpoint the droop is 2 psig / 0.14 bar.
- Capacity is reduced by 10% for Types 627MOSX and 627BMOSX.

- continued -

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Table 10. Types 627M, 627MR, 627BM, 627BMR and 627BMOSX Capacities for NPS 2 / DN 50 Body Size^{(1)/(3)} (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | |
|--|-------------------------------------|----------------------------|---|---------------|---------------|----------------|----------------|----------------|---------------------------------|
| | | | Orifice Size, In. / mm | | | | | | |
| | | | For All Types Except Types 627BM and 627BMR | | | | | | For Types 627BM and 627BMR Only |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | 9/16 / 14.3 ⁽²⁾ |
| 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 60 / 4.1 | 75 / 5.2 | 700 / 18.8 | 1230 / 33.0 | 2760 / 74.0 | 4900 / 131 | 9000 / 241 | 12,300 / 330 | 15,000 / 402 |
| | | 100 / 6.9 | 970 / 26.0 | 1740 / 46.6 | 4010 / 107 | 7000 / 188 | 15,000 / 402 | 20,400 / 547 | 21,100 / 565 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 23,300 / 624 | 35,200 / 943 | 33,400 / 895 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 30,400 / 815 | 48,500 / 1300 | 45,700 / 1224 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 44,600 / 1195 | 71,000 / 1903 | 58,700 / 1573 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 116,000 / 3109 | 95,100 / 2548 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 108,000 / 2894 | 172,000 / 4610 | 138,300 / 3705 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | 144,000 / 3859 | | 181,500 / 4862 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | | 208,600 / 5588 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 97,000 / 2600 | | | 235,600 / 6312 |
| | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | | |
| | 80 / 5.5 | 100 / 6.9 | 900 / 24.1 | 1630 / 43.7 | 3750 / 101 | 6400 / 172 | 12,800 / 343 | 20,400 / 547 | 21,900 / 587 |
| | | 150 / 10.3 | 1410 / 37.8 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 23,300 / 624 | 37,200 / 997 | 37,900 / 1015 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 30,400 / 815 | 48,500 / 1300 | 53,900 / 1444 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 44,600 / 1195 | 71,000 / 1903 | 65,200 / 1747 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 116,000 / 3109 | 104,600 / 2802 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 108,000 / 2894 | 172,000 / 4610 | 147,100 / 3941 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | 144,000 / 3859 | | 189,700 / 5082 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | | 226,400 / 6065 |
| 1500 / 103 | | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 97,000 / 2600 | | | 263,100 / 7048 | |
| 1750 / 121 | | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | |
| 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | | | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 100 / 6.9 | 150 / 10.3 | 1170 / 31.4 | 2510 / 67.3 | 5540 / 148 | 8600 / 230 | 16,000 / 429 | 22,000 / 590 | 28,100 / 753 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 22,000 / 590 | 33,000 / 884 | 38,600 / 1034 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 35,000 / 938 | 59,000 / 1581 | 59,700 / 1599 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 116,000 / 3109 | 91,100 / 2441 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 108,000 / 2894 | 172,000 / 4610 | 125,400 / 3359 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,800 / 1737 | 144,000 / 3859 | | 159,800 / 4281 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | 179,000 / 4797 | | 184,900 / 4953 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | | 210,000 / 5626 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 112,000 / 3002 | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | |
| | 125 / 8.6 | 150 / 10.3 | 1250 / 33.5 | 2340 / 62.7 | 5340 / 143 | 8600 / 230 | 16,000 / 429 | 24,000 / 643 | 30,200 / 809 |
| | | 200 / 13.8 | 1830 / 49.0 | 3320 / 89.0 | 7550 / 202 | 13,700 / 367 | 24,000 / 643 | 36,000 / 965 | 41,600 / 1114 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 39,000 / 1045 | 59,000 / 1581 | 64,400 / 1725 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 116,000 / 3109 | 103,200 / 2765 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 108,000 / 2894 | 172,000 / 4610 | 137,900 / 3694 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,800 / 1737 | 144,000 / 3859 | | 172,700 / 4627 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | 179,000 / 4797 | | 191,300 / 5125 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | | 209,800 / 5621 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 112,000 / 3002 | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | |
| | 150 / 10.3 | 200 / 13.8 | 1760 / 47.2 | 3200 / 85.8 | 7290 / 195 | 13,000 / 348 | 24,000 / 643 | 38,000 / 1018 | 45,300 / 1214 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 44,600 / 1195 | 58,000 / 1554 | 73,500 / 1969 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,900 / 882 | 73,000 / 1956 | 116,000 / 3109 | 102,200 / 2738 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,900 / 1311 | 108,000 / 2894 | 172,000 / 4610 | 139,800 / 3745 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 64,800 / 1737 | 144,000 / 3859 | | 177,400 / 4753 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 80,000 / 2144 | 179,000 / 4797 | | 201,100 / 5387 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 96,000 / 2573 | | | 224,800 / 6022 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | 112,000 / 3002 | | | |
| 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | | |

— Blank areas indicate where maximum operating inlet pressure for a given orifice is exceeded.
 — Shaded areas indicate where a Type 627MR regulator should not be used because unbalanced forces can cause the internal relief valve to start-to-discharge during normal operation. Refer to Table 4.
 1. Capacity is based on 20% droop unless otherwise noted below.
 2. For Types 627BM and 627BMR only.
 3. Capacity is reduced by 10% for Types 627MOSX and 627BMOSX.

Table 11. Types 627H and 627HM Capacities for 3/4 NPT Body Size⁽¹⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | |
|--|-------------------------------------|----------------------------|---|----------------------------|---------------|---------------|---------------|---------------|
| | | | Orifice Size, In. / mm | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 |
| 140 to 250 psig / 9.6 to 17.2 bar 10B3078X012 Blue | 150 / 10.3 | 200 / 13.8 | 1760 / 47.2 ⁽²⁾ | 3200 / 85.8 ⁽²⁾ | 7290 / 195 | 11,500 / 308 | 21,600 / 579 | 31,000 / 831 |
| | | 250 / 17.2 | 2260 / 60.6 ⁽²⁾ | 4100 / 110 ⁽²⁾ | 9200 / 247 | 15,400 / 413 | 28,600 / 766 | 40,000 / 1072 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,300 / 517 | 31,000 / 831 | 46,000 / 1233 |
| | | 400 / 27.6 | 3600 / 96.5 | 6500 / 174 | 14,800 / 397 | 24,700 / 662 | 40,000 / 1072 | 50,000 / 1340 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 29,700 / 796 | 51,000 / 1367 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 43,000 / 1152 | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 57,000 / 1528 | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | |
| | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | |
| | 200 / 13.8 | 250 / 17.2 | 2160 / 57.9 ⁽²⁾ | 3850 / 103 ⁽²⁾ | 8400 / 225 | 15,000 / 402 | 31,000 / 831 | 41,000 / 1099 |
| | | 300 / 20.7 | 2700 / 72.4 ⁽²⁾ | 4910 / 132 ⁽²⁾ | 11,200 / 300 | 19,500 / 523 | 36,000 / 965 | 52,000 / 1394 |
| | | 400 / 27.6 | 3600 / 96.5 | 6500 / 174 | 14,800 / 397 | 25,500 / 683 | 52,000 / 1394 | 68,000 / 1822 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 31,000 / 831 | 61,000 / 1635 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 45,500 / 1219 | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 60,000 / 1608 | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | |
| | 250 / 17.2 | 300 / 20.7 | 2500 / 67 ⁽²⁾ | 4500 / 121 ⁽²⁾ | 9900 / 265 | 18,500 / 496 | 37,000 / 992 | 52,000 / 1394 |
| | | 400 / 27.6 | 3600 / 96.5 ⁽²⁾ | 6400 / 172 ⁽²⁾ | 14,300 / 383 | 26,000 / 697 | 55,000 / 1474 | 74,000 / 1983 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 33,000 / 884 | 64,000 / 1715 | 87,000 / 2332 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 93,000 / 2492 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | |
| 1750 / 121 | | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| 2000 / 138 | | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | |
| 240 to 500 psig / 16.5 to 34.5 bar 10B3079X012 Red | 250 / 17.2 | 300 / 20.7 | 2500 / 67.0 ⁽²⁾ | 4500 / 121 ⁽²⁾ | 9300 / 249 | 14,000 / 375 | 25,000 / 670 | 37,000 / 992 |
| | | 400 / 27.6 | 3600 / 96.5 ⁽²⁾ | 6400 / 172 ⁽²⁾ | 14,300 / 383 | 21,400 / 574 | 36,000 / 965 | 49,000 / 1313 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 26,300 / 705 | 42,000 / 1126 | 62,000 / 1662 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 37,100 / 994 | 57,000 / 1528 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 47,400 / 1270 | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 57,000 / 1528 | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | |
| | 300 / 20.7 | 350 / 24.1 | 2900 / 77.7 ⁽²⁾ | 5150 / 138 ⁽²⁾ | 11,300 / 303 | 18,400 / 493 | 31,000 / 831 | 45,000 / 1206 |
| | | 400 / 27.6 | 3500 / 93.8 ⁽²⁾ | 6200 / 166 ⁽²⁾ | 13,700 / 367 | 23,400 / 627 | 40,000 / 1072 | 52,000 / 1394 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,000 / 858 | 53,000 / 1420 | 67,000 / 1796 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,000 / 1286 | 80,000 / 2144 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 62,000 / 1662 | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 79,000 / 2117 | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | |

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. Small orifices and low pressure drops may cause the setpoint to shift ±15 psig / 1.0 bar.

- continued -

627 Series

Table 11. Types 627H and 627HM Capacities for 3/4 NPT Body Size⁽¹⁾ (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | |
|--|-------------------------------------|----------------------------|---|--|---------------|---------------|----------------|----------------|
| | | | Orifice Size, In. / mm | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 |
| 240 to 500 psig / 16.5 to 34.5 bar 10B3079X012 Red | 400 / 27.6 | 450 / 31.0 | 3600 / 96.5 ⁽²⁾ | 6400 ⁽²⁾ / 172 ⁽²⁾ | 14,000 / 375 | 25,000 / 670 | 47,000 / 1260 | 67,000 / 1796 |
| | | 500 / 34.5 | 4400 / 118 ⁽²⁾ | 8090 ⁽²⁾ / 217 ⁽²⁾ | 18,300 / 490 | 32,000 / 858 | 54,000 / 1447 | 77,000 / 2064 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 91,000 / 2439 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | |
| | 500 / 34.5 | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | |
| | | 550 / 37.9 | 4300 / 115 ⁽²⁾ | 7700 / 206 ⁽²⁾ | 16,800 / 450 | 33,000 / 884 | 62,000 / 1662 | 90,000 / 2412 |
| | | 600 / 41.4 | 4900 / 131 ⁽²⁾ | 8800 / 236 ⁽²⁾ | 19,400 / 520 | 37,000 / 992 | 70,000 / 1876 | 104,000 / 2787 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 88,000 / 2358 | 137,000 / 3672 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | 130,000 / 3484 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 97,000 / 2600 | | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | |

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

- Capacity is based on 20% droop unless otherwise noted below.
- Small orifices and low pressure drops may cause the setpoint to shift ±15 psig / 1.0 bar.

Table 12. Types 627H, 627HM, 627BHM, 627BHMOSX and 627HOSX Capacities for NPS 1 / DN 25 Body Size⁽¹⁾⁽³⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | |
|--|-------------------------------------|----------------------------|---|----------------------------|---------------|----------------------------|---------------|---------------|----------------------|
| | | | Orifice Size, In. / mm | | | | | | |
| | | | For All Types Except Type 627BHM | | | | | | For Type 627BHM Only |
| 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | 9/16 / 14.3 ⁽⁴⁾ | | | |
| 140 to 250 psig / 9.7 to 17.2 bar 10B3078X012 Blue | 150 / 10.3 | 200 / 13.8 | 1760 / 47.2 ⁽²⁾ | 3200 / 85.8 ⁽²⁾ | 7290 / 195 | 11,500 / 308 | 21,600 / 579 | 31,000 / 831 | 29,500 / 790 |
| | | 250 / 17.2 | 2260 / 60.6 ⁽²⁾ | 4100 / 110 ⁽²⁾ | 9200 / 247 | 15,400 / 413 | 28,600 / 766 | 40,000 / 1072 | 39,500 / 1058 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,300 / 517 | 31,000 / 831 | 46,000 / 1233 | 49,400 / 1323 |
| | | 400 / 27.6 | 3600 / 96.5 | 6500 / 174 | 14,800 / 397 | 25,000 / 670 | 40,000 / 1072 | 50,000 / 1340 | 71,300 / 1910 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,000 / 858 | 51,000 / 1367 | | 95,900 / 2569 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 46,000 / 1233 | | | 131,100 / 3512 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 57,000 / 1528 | | | 166,200 / 4452 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | | | | 183,000 / 4903 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 199,700 / 5350 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| 140 to 250 psig / 9.6 to 17.2 bar 10B3078X012 Blue | 200 / 13.8 | 250 / 17.2 | 2160 / 57.9 ⁽²⁾ | 3850 / 103 ⁽²⁾ | 8400 / 225 | 15,000 / 402 | 31,000 / 831 | 41,000 / 1099 | 43,800 / 1173 |
| | | 300 / 20.7 | 2700 / 72.4 ⁽²⁾ | 4910 / 132 ⁽²⁾ | 11,200 / 300 | 19,500 / 523 | 36,000 / 965 | 52,000 / 1394 | 56,000 / 1500 |
| | | 400 / 27.6 | 3600 / 96.5 | 6500 / 174 | 14,800 / 397 | 26,500 / 710 | 52,000 / 1394 | 68,000 / 1822 | 80,200 / 2149 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 33,000 / 884 | 61,000 / 1635 | | 90,500 / 2424 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | | | 141,800 / 3799 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | | 193,100 / 5173 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | | | | 217,600 / 5830 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 242,200 / 6489 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | |
| | 250 / 17.2 | 300 / 20.7 | 2500 / 67.0 ⁽²⁾ | 4500 / 121 ⁽²⁾ | 9900 / 265 | 18,500 / 496 | 37,000 / 992 | 52,000 / 1394 | 57,200 / 1532 |
| | | 400 / 27.6 | 3600 / 96.5 ⁽²⁾ | 6400 / 172 ⁽²⁾ | 14,300 / 383 | 26,000 / 697 | 55,000 / 1474 | 74,000 / 1983 | 84,200 / 2256 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 33,000 / 884 | 64,000 / 1715 | 87,000 / 2332 | 98,000 / 2625 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 93,000 / 2492 | | 150,900 / 4043 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | | 203,900 / 5462 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | | 243,300 / 6518 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 282,800 / 7576 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | |

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

- Capacity is based on 20% droop unless otherwise noted below.
- Small orifices and low pressure drops may cause the setpoint to shift ±15 psig / 1.0 bar.
- Capacity is reduced by 10% for Types 627HOSX and 627BHMOSX.
- For Types 627BM and 627BMR only.

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Table 12. Types 627H, 627HM, 627BHM, 627BHMOX and 627HOSX Capacities for NPS 1 / DN 25 Body Size⁽¹⁾⁽³⁾ (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | |
|--|-------------------------------------|----------------------------|---|---------------------------|---------------|---------------|----------------|----------------|----------------------------|
| | | | Orifice Size, In. / mm | | | | | | |
| | | | For All Types Except Type 627BHM | | | | | | For Type 627BHM Only |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | 9/16 / 14.3 ⁽⁴⁾ |
| 240 to 500 psig / 16.5 to 34.5 bar 10B3079X012 Red | 250 / 17.2 | 300 / 20.7 | 2500 / 67.0 ⁽²⁾ | 4500 / 121 ⁽²⁾ | 9300 / 249 | 14,000 / 375 | 25,000 / 670 | 37,000 / 992 | 40,200 / 1077 |
| | | 400 / 27.6 | 3600 / 96.5 ⁽²⁾ | 6400 / 172 ⁽²⁾ | 14,300 / 383 | 21,400 / 574 | 36,000 / 965 | 49,000 / 1313 | 56,800 / 1522 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 26,300 / 705 | 42,000 / 1126 | 62,000 / 1662 | 72,700 / 1948 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 37,100 / 994 | 57,000 / 1528 | | 116,600 / 3124 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 47,400 / 1270 | | | 160,600 / 4302 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 57,000 / 1528 | | | 184,100 / 4932 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 207,600 / 5562 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | |
| | 300 / 20.7 | 350 / 24.1 | 2900 / 77.7 ⁽²⁾ | 5150 / 138 ⁽²⁾ | 11,300 / 303 | 18,400 / 493 | 31,000 / 831 | 45,000 / 1206 | 51,600 / 1382 |
| | | 400 / 27.6 | 3500 / 93.8 ⁽²⁾ | 6200 / 166 ⁽²⁾ | 13,700 / 367 | 23,400 / 627 | 40,000 / 1072 | 52,000 / 1394 | 61,500 / 1648 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,000 / 858 | 53,000 / 1420 | 67,000 / 1796 | 78,700 / 2108 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,000 / 1286 | 80,000 / 2144 | | 116,200 / 3113 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 62,000 / 1662 | | | 153,700 / 4118 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 79,000 / 2117 | | | 196,500 / 5264 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 239,200 / 6408 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | |
| | 400 / 27.6 | 450 / 31.0 | 3600 / 96.5 ⁽²⁾ | 6400 / 172 ⁽²⁾ | 14,000 / 375 | 25,000 / 670 | 47,000 / 1260 | 67,000 / 1796 | 89,600 / 2400 |
| | | 500 / 34.5 | 4400 / 118 ⁽²⁾ | 8090 / 217 ⁽²⁾ | 18,300 / 490 | 32,000 / 858 | 54,000 / 1447 | 77,000 / 2064 | 99,700 / 2671 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 91,000 / 2439 | | 149,900 / 4016 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | | 200,100 / 5361 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | | 238,600 / 6392 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 277,000 / 7421 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | |
| | 500 / 34.5 | 550 / 37.9 | 4300 / 115 ⁽²⁾ | 7700 / 206 ⁽²⁾ | 16,800 / 450 | 33,000 / 884 | 62,000 / 1662 | 90,000 / 2412 | 109,000 / 2920 |
| | | 600 / 41.4 | 4900 / 131 ⁽²⁾ | 8800 / 236 ⁽²⁾ | 19,400 / 520 | 37,000 / 992 | 70,000 / 1876 | 104,000 / 2787 | 117,800 / 3156 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 88,000 / 2358 | 140,000 / 3752 | 144,300 / 3866 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | 130,000 / 3484 | | 188,400 / 5047 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | | 241,100 / 6459 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 97,000 / 2600 | | | 293,800 / 7871 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | |

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

- Capacity is based on 20% droop unless otherwise noted below.
- Small orifices and low pressure drops may cause the setpoint to shift ±15 psig / 1.0 bar.
- Capacity is reduced by 10% for Types 627HOSX and 627BHMOX.
- For Types 627BM and 627BMR only.

Table 13. Types 627H, 627HM, 627BHM, 627BHMOX and 627HOSX Capacities for NPS 2 / DN 50 Body Size⁽¹⁾⁽³⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | |
|--|-------------------------------------|----------------------------|---|----------------------------|---------------|---------------|---------------|---------------|----------------------------|
| | | | Orifice Size, In. / mm | | | | | | |
| | | | For All Types Except Type 627BHM | | | | | | For Type 627BHM Only |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | 9/16 / 14.3 ⁽⁴⁾ |
| 140 to 250 psig / 9.6 to 17.2 bar 10B3078X012 Blue | 150 / 10.3 | 200 / 13.8 | 1760 / 47.2 ⁽²⁾ | 3200 / 85.8 ⁽²⁾ | 7290 / 195 | 13,700 / 367 | 24,100 / 646 | 31,000 / 831 | 31,500 / 844 |
| | | 250 / 17.2 | 2260 / 60.6 ⁽²⁾ | 4100 / 110 ⁽²⁾ | 9200 / 247 | 16,100 / 431 | 28,600 / 766 | 40,000 / 1072 | 40,400 / 1082 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,300 / 517 | 31,000 / 831 | 46,000 / 1233 | 49,400 / 1323 |
| | | 400 / 27.6 | 3600 / 96.5 | 6500 / 174 | 14,800 / 397 | 25,000 / 670 | 40,000 / 1072 | 50,000 / 1340 | 61,400 / 1645 |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,000 / 858 | | | 86,600 / 2320 |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,000 / 1286 | | | 136,900 / 3668 |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | | 187,300 / 5018 |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | | | | 202,700 / 5430 |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 218,100 / 5843 |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | |

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

- Capacity is based on 20% droop unless otherwise noted below.
- Small orifices and low pressure drops may cause the setpoint to shift ±15 psig / 1.0 bar.
- Capacity is reduced by 10% for Types 627HOSX and 627BHMOX.
- For Types 627BM and 627BMR only.

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Table 13. Types 627H, 627HM, 627BHM, 627BHMOSX and 627HOSX Capacities for NPS 2 / DN 50 Body Size⁽¹⁾⁽³⁾ (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | | |
|--|-------------------------------------|----------------------------|---|---------------------------|---------------------------|---------------|----------------|----------------|----------------------------|----------------------|
| | | | Orifice Size, in. / mm | | | | | | | For Type 627BHM Only |
| | | | For All Types Except Type 627BHM | | | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | 9/16 / 14.3 ⁽⁴⁾ | |
| 140 to 250 psig / 9.6 to 17.2 bar 10B3078X012 Blue | 200 / 13.8 | 250 / 17.2 | 2160 / 57.9 ⁽²⁾ | 3850 / 103 ⁽²⁾ | 8400 / 225 | 16,100 / 431 | 33,000 / 884 | 41,000 / 1099 | 43,600 / 1168 | |
| | | 300 / 20.7 | 2700 / 72.4 ⁽²⁾ | 4910 / 132 ⁽²⁾ | 11,200 / 300 | 20,100 / 539 | 36,000 / 965 | 52,000 / 1394 | 52,400 / 1404 | |
| | | 400 / 27.6 | 3600 / 96.5 | 6500 / 174 | 14,800 / 397 | 26,500 / 710 | 52,000 / 1394 | 68,000 / 1822 | 70,200 / 1881 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 33,000 / 884 | 61,000 / 1635 | | 87,900 / 2355 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | | | 137,700 / 3689 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | | 187,500 / 5023 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | | | | 215,200 / 5765 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 243,000 / 6510 | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | |
| | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | | | | | | | |
| | 250 / 17.2 | 300 / 20.7 | 2500 / 67.0 ⁽²⁾ | 4500 / 121 ⁽²⁾ | 9900 / 265 | 18,500 / 496 | 37,000 / 992 | 75,000 / 2010 | 57,000 / 1527 | |
| | | 400 / 27.6 | 3600 / 96.5 ⁽²⁾ | 6400 / 172 ⁽²⁾ | 14,300 / 383 | 26,000 / 697 | 55,000 / 1474 | 81,000 / 2171 | 79,800 / 2138 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 33,000 / 884 | 64,000 / 1715 | 95,000 / 2546 | 84,400 / 2261 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 102,000 / 2734 | | 136,800 / 3665 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | | 189,200 / 5069 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | | 224,800 / 6022 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 260,400 / 6976 | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | |
| 2000 / 138 | | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | | |
| 240 to 500 psig / 16.5 to 34.5 bar 10B3079X012 Red | 250 / 17.2 | 300 / 20.7 | 2500 / 67.0 ⁽²⁾ | 4500 / 121 ⁽²⁾ | 9300 / 249 | 14,000 / 375 | 25,000 / 670 | 37,000 / 992 | 39,200 / 1050 | |
| | | 400 / 27.6 | 3600 / 96.5 ⁽²⁾ | 6400 / 172 ⁽²⁾ | 14,300 / 383 | 21,400 / 574 | 36,000 / 965 | 49,000 / 1313 | 56,500 / 1514 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 26,300 / 705 | 42,000 / 1126 | 62,000 / 1662 | 73,700 / 1974 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 37,100 / 994 | 57,000 / 1528 | | 109,000 / 2920 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 47,400 / 1270 | | | 144,400 / 3868 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 57,000 / 1528 | | | 165,600 / 4436 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 186,700 / 5002 | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | |
| | 300 / 20.7 | 350 / 24.1 | 2900 / 77.7 ⁽²⁾ | 5150 / 138 ⁽²⁾ | 11,300 / 303 | 18,400 / 493 | 31,000 / 831 | 45,000 / 1206 | 49,300 / 1321 | |
| | | 400 / 27.6 | 3500 / 93.8 ⁽²⁾ | 6200 / 166 ⁽²⁾ | 13,700 / 367 | 23,400 / 627 | 40,000 / 1072 | 52,000 / 1394 | 58,000 / 1554 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 32,000 / 858 | 53,000 / 1420 | 67,000 / 1796 | 71,200 / 1907 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 48,000 / 1286 | 80,000 / 2144 | | 114,900 / 3078 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 62,000 / 1662 | | | 158,600 / 4249 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 79,000 / 2117 | | | 198,600 / 5320 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 238,600 / 6392 | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | |
| 240 to 500 psig / 16.5 to 34.5 bar 10B3079X012 Red | 400 / 27.6 | 450 / 31.0 | 3600 / 96.5 ⁽²⁾ | 6400 / 172 ⁽²⁾ | 14,000 / 375 | 25,000 / 670 | 47,000 / 1260 | 67,000 / 1796 | 75,800 / 2031 | |
| | | 500 / 34.5 | 4400 / 118 ⁽²⁾ | 8090 / 217 ⁽²⁾ | 18,300 / 490 | 32,000 / 858 | 54,000 / 1447 | 77,000 / 2064 | 85,700 / 2296 | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 91,000 / 2439 | | 135,500 / 3630 | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | | | 185,400 / 4967 | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | | 228,700 / 6127 | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | | | | 271,900 / 7284 | |
| | | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | |
| | | 2000 / 138 | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | |
| | | 500 / 34.5 | 550 / 37.9 | 4300 / 115 ⁽²⁾ | 7700 / 206 ⁽²⁾ | 16,800 / 450 | 33,000 / 884 | 62,000 / 1662 | 90,000 / 2412 | 100,200 / 2684 |
| | 600 / 41.4 | | 4900 / 131 ⁽²⁾ | 8800 / 236 ⁽²⁾ | 19,400 / 520 | 37,000 / 992 | 70,000 / 1876 | 104,000 / 2787 | 103,600 / 2775 | |
| | 750 / 51.7 | | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 49,000 / 1313 | 88,000 / 2358 | 140,000 / 3752 | 113,900 / 3051 | |
| | 1000 / 69.0 | | 8700 / 233 | 16,000 / 429 | 36,100 / 967 | 65,000 / 1742 | 130,000 / 3484 | | 201,600 / 5401 | |
| | 1250 / 86.2 | | 11,000 / 295 | 19,000 / 509 | 45,000 / 1206 | 81,000 / 2171 | | | 261,300 / 7000 | |
| | 1500 / 103 | | 13,000 / 348 | 22,000 / 590 | 54,000 / 1447 | 97,000 / 2600 | | | 320,900 / 8597 | |
| | 1750 / 121 | | 15,000 / 402 | 25,000 / 670 | 63,000 / 1688 | | | | | |
| | 2000 / 138 | | 17,000 / 456 | 28,000 / 750 | 71,000 / 1903 | | | | | |

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

- Capacity is based on 20% droop unless otherwise noted below.
- Small orifices and low pressure drops may cause the setpoint to shift ±15 psig / 1.0 bar.
- Capacity is reduced by 10% for Types 627HOSX and 627BHMOSX.
- For Types 627BM and 627BMR only.

Table 14. Type 627R Capacities for 3/4 NPT Body Size⁽¹⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽²⁾ , psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | | |
|--|---|----------------------------|---|--------------|--------------|--------------|--------------|--------------|--------------|
| | | | Orifice Size, In. / mm | | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 | |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 5 / 0.34 | 10 / 0.69 | 170 / 4.6 | 320 / 8.6 | 710 / 19.0 | 1050 / 28.1 | 1500 / 40.2 | 1850 / 49.6 | |
| | | 15 / 1.0 | 240 / 6.4 | 330 / 8.8 | 810 / 21.7 | 1290 / 34.6 | 2100 / 56.3 | 2850 / 76.4 | |
| | | 20 / 1.4 | 290 / 7.8 | 460 / 12.3 | 1090 / 29.2 | 1750 / 46.9 | 2750 / 73.7 | 3850 / 103 | |
| | | 30 / 2.1 | 380 / 10.2 | 610 / 16.3 | 1470 / 39.4 | 2490 / 66.7 | 3600 / 96.5 | 4800 / 129 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2460 / 65.9 | 3690 / 98.9 | 5270 / 141 | 6120 / 164 | |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 2880 / 77.2 | 4150 / 111 | 5760 / 154 | 6900 / 185 | |
| | 10 / 0.69 | 100 / 6.9 | 990 / 26.5 | 1690 / 45.3 | 3540 / 94.9 | 4790 / 128 | 6200 / 166 | 7600 / 204 | |
| | | 15 / 1.0 | 210 / 5.6 | 320 / 8.6 | 800 / 21.4 | 1290 / 34.6 | 2100 / 56.3 | 2820 / 75.6 | |
| | | 20 / 1.4 | 280 / 7.5 | 450 / 12.1 | 1070 / 28.7 | 1740 / 46.6 | 2700 / 72.4 | 3800 / 102 | |
| | | 30 / 2.1 | 380 / 10.2 | 610 / 16.3 | 1470 / 39.4 | 2430 / 65.1 | 3550 / 95.1 | 4780 / 128 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2460 / 65.9 | 3690 / 98.9 | 5270 / 141 | 6120 / 164 | |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 2880 / 77.2 | 4150 / 111 | 5760 / 154 | 6900 / 185 | |
| | | 100 / 6.9 | 990 / 26.5 | 1690 / 45.3 | 3540 / 94.9 | 4790 / 128 | 6200 / 166 | 7600 / 204 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2430 / 65.1 | 4000 / 107 | 5680 / 152 | 6250 / 168 | 7630 / 204 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3070 / 82.3 | 4200 / 113 | 6200 / 166 | 6380 / 171 | 7680 / 206 | |
| | | 300 / 20.7 | 2700 / 72.4 | 3970 / 106 | 4270 / 114 | 6250 / 168 | 6500 / 174 | | |
| | | 500 / 34.5 | 4010 / 107 | 4240 / 114 | 5640 / 151 | 6520 / 175 | | | |
| | | 750 / 51.7 | 4400 / 118 | 5120 / 137 | 6400 / 172 | | | | |
| | | 1000 / 69.0 | 4450 / 119 | 6220 / 167 | | | | | |
| | | 1250 / 86.2 | 4540 / 122 | | | | | | |
| | 1500 / 103 | 4880 / 131 | | | | | | | |
| | 1750 / 121 | 5230 / 140 | | | | | | | |
| | 2000 / 138 | 5900 / 158 | | | | | | | |
| | 20 / 1.4 | 30 / 2.1 | 350 / 9.4 | 590 / 15.8 | 1390 / 37.3 | 2480 / 66.5 | 4350 / 117 | 4970 / 133 | |
| | | 50 / 3.4 | 550 / 14.7 | 980 / 26.3 | 2240 / 60.0 | 4000 / 107 | 7450 / 200 | 8000 / 214 | |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2610 / 69.9 | 4680 / 125 | 7800 / 209 | 8900 / 239 | |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 3980 / 107 | 6700 / 180 | 9750 / 261 | 10,400 / 279 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5600 / 150 | 8790 / 236 | 10,000 / 268 | 10,800 / 289 | |
| | 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 20 / 1.4 | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7050 / 189 | 9000 / 241 | 10,200 / 273 | 10,800 / 289 |
| | | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 7300 / 196 | 9500 / 255 | 10,500 / 281 | |
| 500 / 34.5 | | | 4400 / 118 | 5200 / 139 | 7400 / 198 | 9760 / 262 | | | |
| 750 / 51.7 | | | 6600 / 177 | 5360 / 144 | 8870 / 238 | | | | |
| 1000 / 69.0 | | | 7300 / 196 | 6500 / 174 | | | | | |
| 1250 / 86.2 | | | 7500 / 201 | | | | | | |
| 1500 / 103 | | | 7800 / 209 | | | | | | |
| 1750 / 121 | | | 8400 / 225 | | | | | | |
| 2000 / 138 | 8600 / 230 | | | | | | | | |
| 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 40 / 2.8 | 60 / 4.1 | 610 / 16.3 | 1090 / 29.2 | 2270 / 60.8 | 4230 / 113 | 8100 / 217 | 9100 / 244 | |
| | | 75 / 5.2 | 760 / 20.4 | 1370 / 36.7 | 3080 / 82.5 | 5330 / 143 | 10,300 / 276 | 11,600 / 311 | |
| | | 100 / 6.9 | 990 / 26.5 | 1790 / 48.0 | 4070 / 109 | 6840 / 183 | 11,900 / 319 | 13,400 / 359 | |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 9320 / 250 | 13,500 / 362 | 13,800 / 370 | |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 11,000 / 295 | 16,300 / 437 | 17,100 / 458 | |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 14,700 / 394 | 17,800 / 477 | | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 14,500 / 389 | 14,800 / 397 | | | |
| | | 750 / 51.7 | 6600 / 177 | 10,800 / 289 | 14,800 / 397 | 14,900 / 399 | | | |
| | | 1000 / 69.0 | 8700 / 233 | 13,100 / 351 | 16,300 / 437 | | | | |
| | | 1250 / 86.2 | 11,000 / 295 | 13,800 / 370 | | | | | |
| | | 1500 / 103 | 12,000 / 322 | 14,000 / 375 | | | | | |
| | | 1750 / 121 | 13,000 / 348 | | | | | | |
| 2000 / 138 | 14,000 / 375 | | | | | | | | |

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 / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so that setpoint adjustment can be obtained.

- continued -

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Table 14. Type 627R Capacities for 3/4 NPT Body Size⁽¹⁾ (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽²⁾ , psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | |
|--|---|----------------------------|---|--------------|--------------|--------------|--------------|--------------|
| | | | Orifice Size, In. / mm | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 |
| 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 60 / 4.1 | 75 / 5.2 | 700 / 18.8 | 1230 / 33.0 | 2760 / 74.0 | 4700 / 126 | 8170 / 219 | 12,600 / 338 |
| | | 100 / 6.9 | 970 / 26.0 | 1740 / 46.6 | 3910 / 105 | 6690 / 179 | 11,900 / 319 | 14,400 / 386 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 9740 / 261 | 15,700 / 421 | 18,700 / 501 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 12,400 / 332 | 18,400 / 493 | 21,200 / 568 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 17,700 / 474 | 20,200 / 541 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 20,000 / 536 | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 18,900 / 507 | 21,400 / 574 | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 19,000 / 509 | | | |
| | | 1250 / 86.2 | 11,000 / 295 | 18,700 / 501 | | | | |
| | 1500 / 103 | 13,000 / 348 | 19,000 / 509 | | | | | |
| | 1750 / 121 | 15,000 / 402 | 20,000 / 536 | | | | | |
| | 2000 / 138 | 17,000 / 456 | | | | | | |
| | 100 / 6.9 | 900 / 24.1 | 1630 / 43.7 | 3570 / 95.7 | 6490 / 174 | 12,000 / 322 | 17,200 / 461 | |
| | 150 / 10.3 | 1410 / 37.8 | 2580 / 69.1 | 5750 / 154 | 10,500 / 281 | 18,900 / 507 | 25,000 / 670 | |
| | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 23,000 / 616 | 29,000 / 777 | |
| | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 26,000 / 697 | | |
| | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 29,000 / 777 | | | |
| | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 23,100 / 619 | 30,900 / 828 | | | |
| | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 27,400 / 734 | | | | |
| 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | | | | | | |
| 1500 / 103 | 13,000 / 348 | 22,000 / 590 | | | | | | |
| 1750 / 121 | 15,000 / 402 | 25,000 / 670 | | | | | | |
| 2000 / 138 | 17,000 / 456 | | | | | | | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 100 / 6.9 | 150 / 10.3 | 1170 / 31.4 | 2510 / 67.3 | 5540 / 148 | 8310 / 223 | 15,500 / 415 | 20,300 / 544 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 12,000 / 322 | 20,100 / 539 | 25,700 / 689 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 18,200 / 488 | | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | | | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | |
| | | 1250 / 86.2 | 11,000 / 295 | | | | | |
| | | 1500 / 103 | 13,000 / 348 | | | | | |
| | | 1750 / 121 | 15,000 / 402 | | | | | |
| 2000 / 138 | 17,000 / 456 | | | | | | | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 125 / 8.6 | 150 / 10.3 | 1250 / 33.5 | 2330 / 62.4 | 5090 / 136 | 9130 / 245 | 15,700 / 421 | 20,800 / 557 |
| | | 200 / 13.8 | 1830 / 49.0 | 3320 / 89.0 | 7360 / 197 | 13,160 / 353 | 22,400 / 600 | 28,600 / 766 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,700 / 528 | | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | | | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | |
| | | 1250 / 86.2 | 11,000 / 295 | | | | | |
| | | 1500 / 103 | 13,000 / 348 | | | | | |
| | | 1750 / 121 | 15,000 / 402 | | | | | |
| | 2000 / 138 | 17,000 / 456 | | | | | | |
| | 200 / 13.8 | 1760 / 47.2 | 3200 / 85.8 | 7020 / 188 | 12,500 / 335 | 21,400 / 574 | 30,600 / 820 | |
| | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 17,200 / 461 | | | |
| | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | | | | |
| | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | | | | | |
| | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | | |
| | 1250 / 86.2 | 11,000 / 295 | | | | | | |
| | 1500 / 103 | 13,000 / 348 | | | | | | |
| | 1750 / 121 | 15,000 / 402 | | | | | | |
| | 2000 / 138 | 17,000 / 456 | | | | | | |

— 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.

Table 15. Type 627R Capacities for NPS 1 and 2 / DN 25 and 50 Body Sizes⁽¹⁾

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING ⁽²⁾ , psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | |
|--|---|----------------------------|---|--------------|--------------|--------------|--------------|--------------|
| | | | Orifice Size, In. / mm | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 5 / 0.34 | 10 / 0.69 | 170 / 4.6 | 330 / 8.8 | 710 / 19.0 | 1080 / 28.9 | 2000 / 53.6 | 2150 / 57.6 |
| | | 15 / 1.0 | 240 / 6.4 | 390 / 10.5 | 890 / 23.9 | 1500 / 40.2 | 2350 / 63.0 | 3000 / 80.4 |
| | | 20 / 1.4 | 290 / 7.8 | 500 / 13.4 | 1160 / 31.1 | 1900 / 50.9 | 2750 / 73.7 | 3900 / 105 |
| | | 30 / 2.1 | 380 / 10.2 | 690 / 18.5 | 1500 / 40.2 | 2500 / 67.0 | 3600 / 96.5 | 4900 / 131 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2460 / 65.9 | 3690 / 98.9 | 5650 / 151 | 6900 / 185 |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 2880 / 77.2 | 4150 / 111 | 6450 / 173 | 7490 / 201 |
| | 10 / 0.69 | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 3540 / 94.9 | 5790 / 155 | 7520 / 202 | 8150 / 218 |
| | | 15 / 1.0 | 210 / 5.6 | 390 / 10.5 | 840 / 22.5 | 1480 / 39.7 | 2300 / 61.6 | 2930 / 78.5 |
| | | 20 / 1.4 | 280 / 7.5 | 500 / 13.4 | 1100 / 29.5 | 1880 / 50.4 | 2700 / 72.4 | 3830 / 103 |
| | | 30 / 2.1 | 380 / 10.2 | 690 / 18.5 | 1500 / 40.2 | 2460 / 65.9 | 3550 / 95.1 | 4840 / 130 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2460 / 65.9 | 3690 / 98.9 | 5650 / 151 | 6900 / 185 |
| | | 75 / 5.2 | 770 / 20.6 | 1410 / 37.8 | 2880 / 77.2 | 4150 / 111 | 6450 / 173 | 7490 / 201 |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 3540 / 94.9 | 4790 / 128 | 7520 / 202 | 8150 / 218 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 4660 / 125 | 5680 / 152 | 9980 / 267 | 10,800 / 289 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 5620 / 151 | 6360 / 170 | 11,000 / 295 | 12,900 / 346 |
| | | 300 / 20.7 | 2700 / 72.4 | 4880 / 131 | 6890 / 185 | 7780 / 209 | 13,600 / 364 | |
| | | 500 / 34.5 | 4400 / 118 | 6720 / 180 | 8570 / 230 | 11,600 / 311 | | |
| | | 750 / 51.7 | 5400 / 145 | 8850 / 237 | 9000 / 241 | | | |
| | | 1000 / 69.0 | 5800 / 155 | 9500 / 255 | | | | |
| | | 1250 / 86.2 | 6300 / 169 | | | | | |
| 1500 / 103 | 6600 / 177 | | | | | | | |
| 1750 / 121 | 6800 / 182 | | | | | | | |
| 2000 / 138 | 7600 / 204 | | | | | | | |
| 5 to 20 psig / 0.34 to 1.4 bar 10B3076X012 Yellow | 20 / 1.4 | 30 / 2.1 | 350 / 9.4 | 600 / 16.1 | 1390 / 37.3 | 2580 / 69.1 | 4350 / 117 | 6290 / 169 |
| | | 50 / 3.4 | 550 / 14.7 | 1000 / 26.8 | 2250 / 60.3 | 4090 / 110 | 7600 / 204 | 8000 / 214 |
| | | 60 / 4.1 | 640 / 17.2 | 1170 / 31.4 | 2630 / 70.5 | 4750 / 127 | 7800 / 209 | 10,600 / 284 |
| | | 100 / 6.9 | 990 / 26.5 | 1800 / 48.2 | 4070 / 109 | 7310 / 196 | 10,800 / 289 | 13,400 / 359 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5720 / 153 | 10,300 / 276 | 13,500 / 362 | 14,000 / 375 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7050 / 189 | 10,500 / 281 | 14,000 / 375 | 14,400 / 386 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 9250 / 248 | 10,800 / 289 | 14,900 / 399 | |
| | | 500 / 34.5 | 4400 / 118 | 7830 / 210 | 11,800 / 316 | 13,300 / 356 | | |
| | | 750 / 51.7 | 6600 / 177 | 9000 / 241 | 12,000 / 322 | | | |
| | | 1000 / 69.0 | 8700 / 233 | 9660 / 259 | | | | |
| | | 1250 / 86.2 | 10,000 / 268 | | | | | |
| | | 1500 / 103 | 10,400 / 279 | | | | | |
| 1750 / 121 | 12,000 / 322 | | | | | | | |
| 2000 / 138 | 14,000 / 375 | | | | | | | |
| 15 to 40 psig / 1.0 to 2.8 bar 10B3077X012 Green | 40 / 2.8 | 60 / 4.1 | 610 / 16.3 | 1090 / 29.2 | 2430 / 65.1 | 4510 / 121 | 9200 / 247 | 9400 / 252 |
| | | 75 / 5.2 | 760 / 20.4 | 1370 / 36.7 | 3080 / 82.5 | 5640 / 151 | 10,800 / 289 | 16,300 / 437 |
| | | 100 / 6.9 | 990 / 26.5 | 1790 / 48.0 | 4070 / 109 | 7310 / 196 | 13,500 / 362 | 17,600 / 472 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 18,000 / 482 | 22,200 / 595 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 11,000 / 295 | 21,400 / 574 | 24,600 / 659 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 14,900 / 399 | 24,400 / 654 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 16,300 / 437 | 21,800 / 584 | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 20,200 / 541 | 23,600 / 632 | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 23,200 / 622 | | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | | | | |
| | | 1500 / 103 | 13,000 / 348 | 21,000 / 563 | | | | |
| | | 1750 / 121 | 15,000 / 402 | | | | | |
| 2000 / 138 | 17,000 / 456 | | | | | | | |

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 / 0.69 bar, inlet pressure should be limited to approximately 100 psig / 6.9 bar so that setpoint adjustment can be obtained.

- continued -

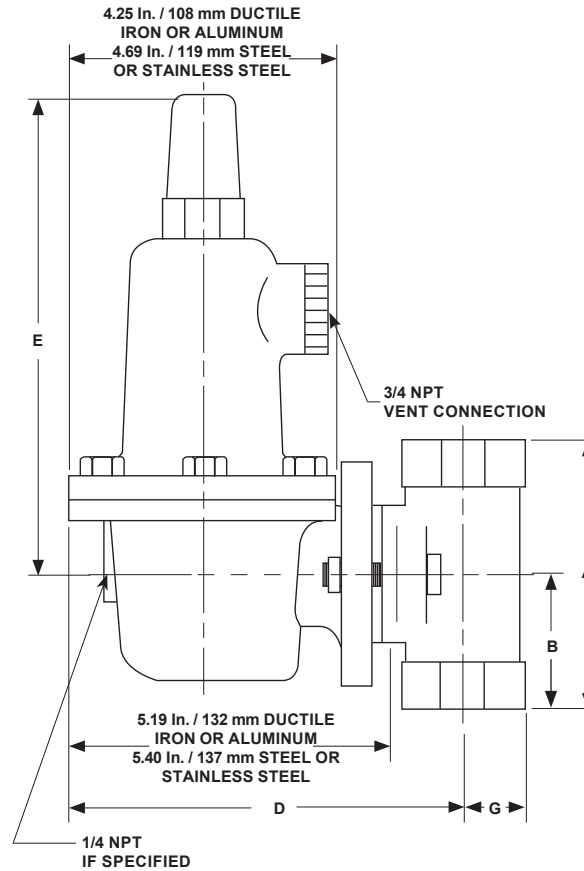
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Table 15. Type 627R Capacities for NPS 1 and 2 / DN 25 and 50 Body Sizes⁽¹⁾ (continued)

| OUTLET PRESSURE RANGE, SPRING PART NUMBER AND COLOR CODE | OUTLET PRESSURE SETTING, psig / bar | INLET PRESSURE, psig / bar | CAPACITIES IN SCFH / Nm ³ /h OF 0.6 SPECIFIC GRAVITY NATURAL GAS | | | | | |
|--|-------------------------------------|----------------------------|---|--------------|--------------|---------------|--------------|--------------|
| | | | Orifice Size, In. / mm | | | | | |
| | | | 3/32 / 2.4 | 1/8 / 3.2 | 3/16 / 4.8 | 1/4 / 6.4 | 3/8 / 9.5 | 1/2 / 13 |
| 35 to 80 psig / 2.4 to 5.5 bar 10B3078X012 Blue | 60 / 4.1 | 75 / 5.2 | 700 / 18.8 | 1230 / 33.0 | 2760 / 74.0 | 4860 / 130 | 8600 / 230 | 12,800 / 343 |
| | | 100 / 6.9 | 970 / 26.0 | 1740 / 46.6 | 3910 / 105 | 7000 / 188 | 12,500 / 335 | 16,700 / 448 |
| | | 150 / 10.3 | 1420 / 38.1 | 2580 / 69.1 | 5850 / 157 | 10,500 / 281 | 16,800 / 450 | 23,000 / 616 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 20,900 / 560 | 27,700 / 742 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 28,100 / 753 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 28,500 / 764 | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 22,800 / 611 | 29,500 / 791 | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 26,800 / 718 | | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | | | | |
| | | 1500 / 103 | 13,000 / 348 | 22,000 / 590 | | | | |
| | 1750 / 121 | 15,000 / 402 | 25,000 / 670 | | | | | |
| | 2000 / 138 | 17,000 / 456 | | | | | | |
| | 80 / 5.5 | 100 / 6.9 | 900 / 24.1 | 1630 / 43.7 | 3570 / 95.7 | 6650 / 178 | 12,000 / 322 | 17,400 / 466 |
| | | 150 / 10.3 | 1410 / 37.8 | 2580 / 69.1 | 5750 / 154 | 10,500 / 281 | 20,100 / 539 | 26,000 / 697 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 13,700 / 367 | 25,100 / 673 | 31,800 / 852 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 20,100 / 539 | 32,600 / 874 | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | 30,300 / 812 | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | 27,200 / 729 | 37,400 / 1002 | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | 33,300 / 892 | | | |
| | | 1250 / 86.2 | 11,000 / 295 | 19,000 / 509 | | | | |
| 1500 / 103 | | 13,000 / 348 | 22,000 / 590 | | | | | |
| 1750 / 121 | | 15,000 / 402 | 25,000 / 670 | | | | | |
| 2000 / 138 | 17,000 / 456 | | | | | | | |
| 70 to 150 psig / 4.8 to 10.3 bar 10B3079X012 Red | 100 / 6.9 | 150 / 10.3 | 1170 / 31.4 | 2510 / 67.3 | 5540 / 148 | 8310 / 223 | 15,500 / 415 | 20,300 / 544 |
| | | 200 / 13.8 | 1850 / 49.6 | 3370 / 90.3 | 7630 / 204 | 12,000 / 322 | 20,100 / 539 | 26,700 / 716 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 18,200 / 488 | | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | | | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | |
| | | 1250 / 86.2 | 11,000 / 295 | | | | | |
| | | 1500 / 103 | 13,000 / 348 | | | | | |
| | | 1750 / 121 | 15,000 / 402 | | | | | |
| | | 2000 / 138 | 17,000 / 456 | | | | | |
| | 125 / 8.6 | 150 / 10.3 | 1250 / 33.5 | 2330 / 62.4 | 5090 / 136 | 9470 / 254 | 15,700 / 421 | 20,800 / 557 |
| | | 200 / 13.8 | 1830 / 49.0 | 3320 / 89.0 | 7360 / 197 | 13,400 / 359 | 23,600 / 632 | 31,300 / 839 |
| | | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 19,700 / 528 | | |
| | | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | | | |
| | | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | | | | |
| | | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | |
| | | 1250 / 86.2 | 11,000 / 295 | | | | | |
| | | 1500 / 103 | 13,000 / 348 | | | | | |
| | | 1750 / 121 | 15,000 / 402 | | | | | |
| | | 2000 / 138 | 17,000 / 456 | | | | | |
| 150 / 10.3 | 200 / 13.8 | 1760 / 47.2 | 3200 / 85.8 | 7020 / 188 | 12,900 / 346 | 21,400 / 574 | 33,300 / 892 | |
| | 300 / 20.7 | 2700 / 72.4 | 4910 / 132 | 11,200 / 300 | 17,200 / 461 | | | |
| | 500 / 34.5 | 4400 / 118 | 8090 / 217 | 18,300 / 490 | | | | |
| | 750 / 51.7 | 6600 / 177 | 12,000 / 322 | | | | | |
| | 1000 / 69.0 | 8700 / 233 | 16,000 / 429 | | | | | |
| | 1250 / 86.2 | 11,000 / 295 | | | | | | |
| | 1500 / 103 | 13,000 / 348 | | | | | | |
| | 1750 / 121 | 15,000 / 402 | | | | | | |
| | 2000 / 138 | 17,000 / 456 | | | | | | |

— 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.



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Figure 14. NPT Dimensions

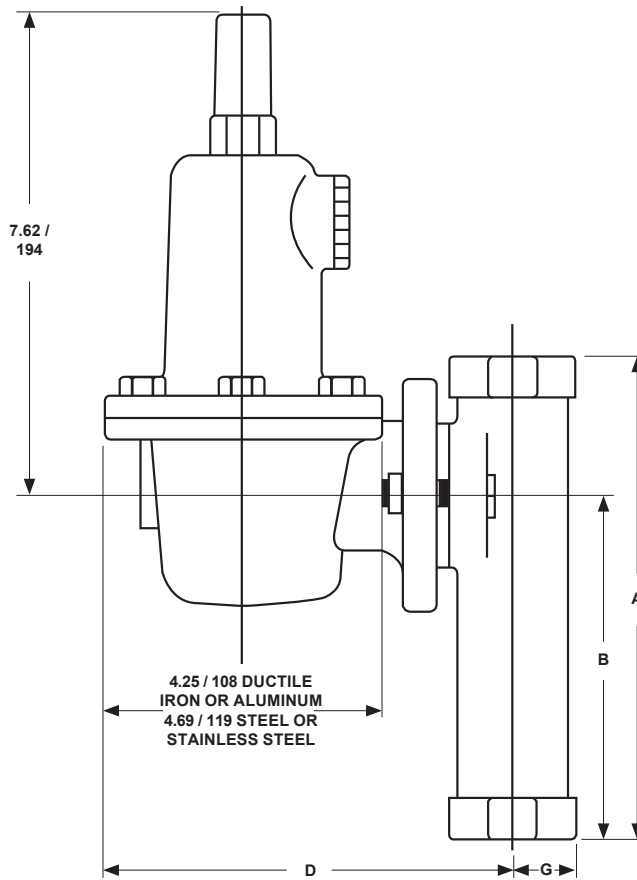
Table 16. Flow Coefficients

| ORIFICE SIZE, IN. / mm | NPS 3/4 / DN 20 BODY | | | NPS 1 / DN 25 BODY | | | NPS 1-1/4 / DN 32 BODY | | | NPS 2 / DN 50 BODY | | |
|---------------------------|--|--|-------|--|--|-------|--|--|-------|--|--|-------|
| | Wide-Open C_g for External Relief Sizing | Wide-Open C_v for External Relief Sizing | C_1 | Wide-Open C_g for External Relief Sizing | Wide-Open C_v for External Relief Sizing | C_1 | Wide-Open C_g for External Relief Sizing | Wide-Open C_v for External Relief Sizing | C_1 | Wide-Open C_g 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 | 7.0 | 0.23 | 30.7 | 6.9 | 0.23 | 29.7 |
| 1/8 / 3.2 | 12.5 | 0.43 | 29.1 | 12.5 | 0.43 | 29.4 | 12.1 | 0.43 | 28.0 | 12.5 | 0.42 | 29.5 |
| 3/16 / 4.8 | 29 | 1.01 | 28.6 | 29 | 0.93 | 31.2 | 26 | 0.92 | 28.7 | 29 | 1.02 | 28.5 |
| 1/4 / 6.4 | 50 | 1.63 | 30.6 | 50 | 1.71 | 29.3 | 43 | 1.45 | 30.0 | 52 | 1.66 | 31.3 |
| 3/8 / 9.5 | 108 | 2.99 | 36.1 | 108 | 3.42 | 31.6 | 96 | 3.33 | 28.9 | 115 | 3.39 | 33.9 |
| 1/2 / 13 | 190 | 4.87 | 39.0 | 190 | 5.29 | 35.9 | 168 | 5.18 | 32.4 | 200 | 5.01 | 39.9 |
| 9/16 / 14.3 | ---- | ---- | ---- | 211.6 | 5.6 | 37.8 | ---- | ---- | ---- | 219.3 | 6.0 | 36.0 |

Table 17. IEC Sizing Coefficients

| ORIFICE SIZE, IN. / mm | X_T | | | F_D | F_L |
|---------------------------|----------------------|--------------------|--------------------|-------|-------|
| | NPS 3/4 / DN 20 Body | NPS 1 / DN 25 Body | NPS 2 / DN 50 Body | | |
| 3/32 / 2.4 | 0.539 | 0.514 | 0.558 | 0.50 | 0.85 |
| 1/8 / 3.2 | 0.536 | 0.547 | 0.539 | | 0.79 |
| 3/16 / 4.8 | 0.517 | 0.616 | 0.514 | | 0.85 |
| 1/4 / 6.4 | 0.592 | 0.543 | 0.620 | | 0.87 |
| 3/8 / 9.5 | 0.824 | 0.632 | 0.727 | | 0.89 |
| 1/2 / 13 | 0.962 | 0.815 | 1.01 | | 0.86 |
| 9/16 / 14.3 | ---- | 0.906 | 0.823 | | 0.89 |

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IN. /
mm

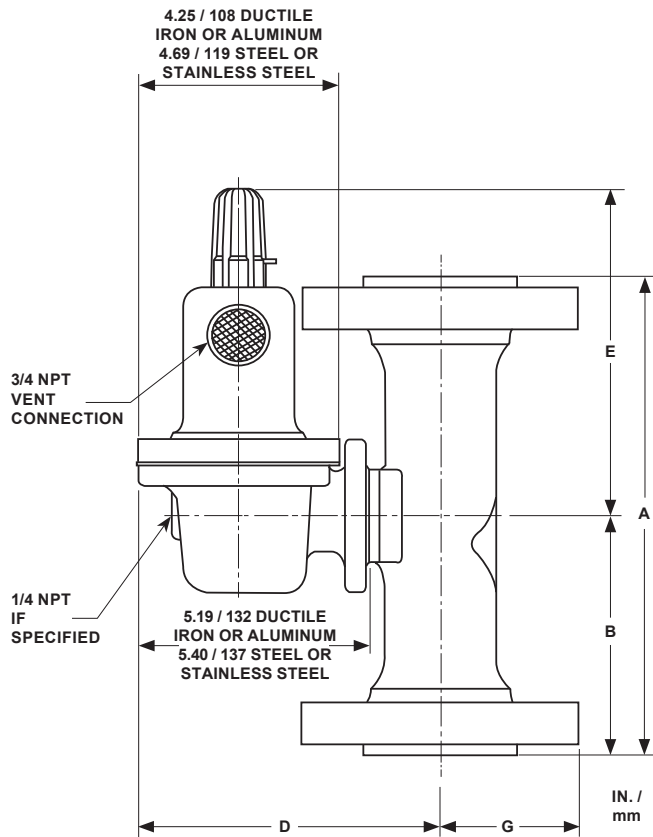
Figure 15. Long Body Dimensions

Table 18. NPT Body Dimensions

| BODY SIZE, NPT | DIMENSION, IN. / mm | | | | | | |
|-------------------|---------------------|-------------|---------------------------|---------------------------|--|-------------------------|-------------|
| | A | B | D | | E | | G |
| | | | Aluminum/ Ductile iron | Steel/ Stainless steel | Types 627, 627R, 627LR, 627M and 627MR | Types 627H and 627HM | |
| 3/4 and 1 | 4.06 / 103 | 1.94 / 49.2 | 6.50 / 165 | 6.75 / 171 | 7.62 / 194 | 7.94 / 202 | 1.00 / 25.4 |
| 2 | 5.00 / 127 | 2.50 / 63.5 | 6.88 / 175 | 7.12 / 181 | | | 1.69 / 42.9 |

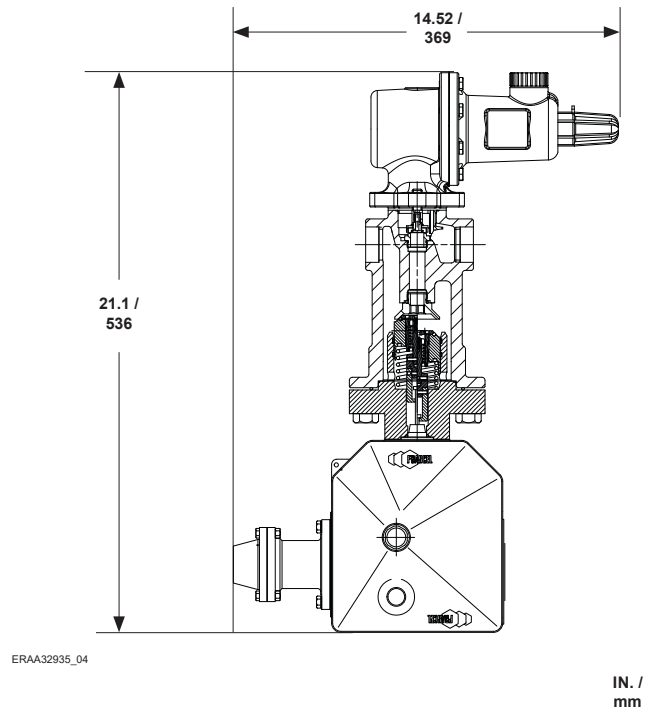
Table 19. Long Body Dimensions

| BODY SIZE, NPT | DIMENSION, IN. / mm | | | | |
|----------------|---------------------|------------|---------------------------|---------------------------|-------------|
| | A | B | D | | G |
| | | | Aluminum/ Ductile iron | Steel/ Stainless steel | |
| 1 | 7.38 / 187 | 5.25 / 133 | 6.50 / 165 | 6.75 / 171 | 1.00 / 25.4 |
| 2 | 7.88 / 200 | 5.38 / 137 | 6.88 / 175 | 7.12 / 181 | 1.69 / 42.9 |



11B9818

Figure 16. Flanged Dimensions



ERAA32935_04

Figure 17. Type OSX Slam-Shut Valve Dimensions

Table 20. Flanged Body Dimensions

| BODY SIZE, NPS / DN | DIMENSION, IN. / mm | | | | | | | | | | | | |
|---------------------|---------------------|------------|-------------|-------------|-------------|------------|------------------------|------------------------|--|----------------------|-------------|-------------|-------------|
| | A | | | B | | | D | | E | | G | | |
| | CL150 RF | CL300 RF | CL600 RF | CL150 RF | CL300 RF | CL600 RF | Aluminum/ Ductile iron | Steel/ Stainless steel | Types 627, 627R, 627LR, 627M and 627MR | Types 627H and 627HM | CL150 RF | CL300 RF | CL600 RF |
| 1 / 25 | 7.25 / 184 | 7.75 / 197 | 8.25 / 210 | 3.62 / 91.9 | 3.88 / 98.6 | 4.12 / 105 | 6.50 / 165 | 6.75 / 171 | 7.62 / 194 | 7.94 / 202 | 2.12 / 53.8 | 2.44 / 62.0 | 2.44 / 62.0 |
| 2 / 50 | 10 / 254 | 10.5 / 267 | 11.25 / 286 | 5 / 127 | 5.25 / 133 | 5.62 / 143 | 6.88 / 175 | 7.12 / 181 | | | 3 / 76.2 | 3.25 / 82.6 | 3.25 / 82.6 |

627 Series

Ordering Information

Application

When ordering, specify:

1. Type of regulator
2. Body size
3. Body material and trim material
4. Orifice size in in. / mm
5. Control spring range in psig / bar

Construction

Refer to the Specifications section and to each referenced table; specify the desired selection whenever there is a choice to be made. The standard assembly position is 1D for NPT connection and 3D for flanged bodies, as shown in Figure 12, but an alternate assembly position may be factory-ordered or can be accomplished in the field by unbolting the body or spring case using the instructions in the appropriate section of the Instruction Manual. For installation dimensions, refer to Figures 15 to 18.

Ordering Guide

Type (Select One)

- 627 (basic construction)***
- 627H (high-pressure version)
(WCC steel/Stainless steel only)***
- 627M (external pressure registration)***
- 627BM***
- 627HM***
- 627BHM***
- 627R (internal relief)***
- 627LR***
- 627MR***
- 627BMR***
- 627OSX
- 627BMOSX

Body Size (Select One)

- 3/4 (NPT only)***
- NPS 1 / DN 25***
- NPS 1-1/4 / DN 32***
- NPS 2 / DN 50***
- 1 NPT Long Body**
- 2 NPT Long Body**

Body Material and End Connection Styles

(Select One)

Ductile Iron (not available for Types 627H and 627HM)

- NPT (available end connection for Type 627 long body)***

WCC steel (required for Types 627H, 627HM and 627BHM)

- NPT (available end connection for Type 627 long body)***
- CL150 RF**
- CL300 RF***
- CL600 RF***
- PN 16/25/40**
- BWE*

Stainless steel (Available only for Types 627, 627R and 627H)

- NPT***
- CL150 RF**
- CL300 RF***
- CL600 RF***
- PN 16/25/40**

Spring Case and Diaphragm Casing Material (Select One)

- Aluminum (Types 627, 627R and 627LR only)***
- Ductile iron***
- WCC steel***
- Stainless steel (Types 627, 627R and 627H only)***

Diaphragm Material (Select One)

- Nitrile (NBR)***
- Fluorocarbon (FKM)***
- Neoprene (CR) (For Types 627H, 627HM and 627BHM only)***

Trim Material (Select One)

- Aluminum (Types 627, 627R and 627LR only)***
- Stainless steel***

Valve Disk Material (Select One)

- Nitrile (NBR)***
- Nylon (PA) (not available to Type 627LR)***
- Fluorocarbon (FKM) (not available to Types 627BM, 627BMR, 627H, 627HM and 627BHM)**

Orifice Size (Select One)

- 3/32 in. / 2.4 mm***
- 1/8 in. / 3.2 mm***
- 3/16 in. / 4.8 mm***
- 1/4 in. / 6.4 mm***
- 3/8 in. / 9.5 mm (not available to Type 627LR)***
- 1/2 in. / 13 mm (not available to Type 627LR)***
- 9/16 in. / 14.3 mm (For Types 627BM, 627BMR, 627BHM, 627BMOSX and 627BHMOSX only)***

Ordering Guide (continued)

Outlet Pressure Range (Select One)

Types 627, 627M, 627BM, 627R and 627BMR

- 5 to 20 psig / 0.34 to 1.4 bar, Yellow***
- 15 to 40 psig / 1.0 to 2.8 bar, Green***
- 35 to 80 psig / 2.4 to 5.5 bar, Blue***
- 70 to 150 psig / 4.8 to 10.3 bar, Red***

Type 627LR

- 15 to 40 psig / 1.0 to 2.8 bar, Green***

Types 627H, 627HM and 627BHM

- 140 to 250 psig / 9.7 to 17.2 bar, Blue***
- 240 to 500 psig / 16.5 to 34.5 bar, Red***

Body Position (Select One)

- Position 1 (standard for NPT connections)***
- Position 2**
- Position 3 (standard for flanged bodies)**
- Position 4**

Vent Position (Select One)

- Position C**
- Position D (standard)***
- Position E**
- Position F**

DVGW Approval Required (Optional)

- Yes*

Replacement Parts Kit (Optional)

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

| Regulators Quick Order Guide | |
|---|--|
| *** | Readily Available for Shipment |
| ** | Allow Additional Time for Shipment |
| * | Special Order, Constructed from Non-Stocked Parts. Consult your local Sales Office 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 _____
 Gas Type and Specific Gravity _____
 Gas Temperature _____
 Does the Application Require Overpressure Protection?
 Yes No If yes, which is preferred:
 Relief Valve Monitor Regulator Shutoff Device
 Is overpressure protection equipment selection assistance desired? _____

Pressure:
 Maximum Inlet Pressure (P_{1max}) _____
 Minimum Inlet Pressure (P_{1min}) _____
 Downstream Pressure Setting(s) (P_2) _____
 Maximum Flow (Q_{max}) _____

Performance Required:
 Accuracy Requirements? _____
 Need for Extremely Fast Response? _____

Other Requirements: _____

627 Series

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🐦 Twitter.com/emr_automation

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