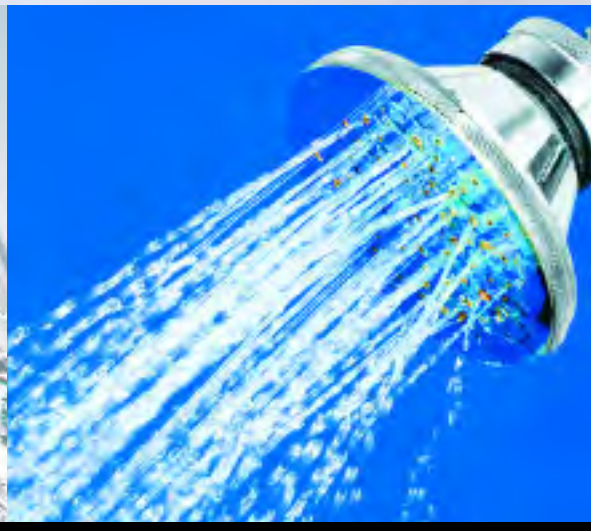
Now includes our
**LEAD FREE*** product offering



# Water Pressure Reducing Valves

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WATTS®

# Table of Contents

# General Information

## Ensuring Practical, Safe Working Water Pressures

Water pressure reducing valves have been in use as long ago as 1874, when Watts' regulators were employed to reduce the pressure of incoming water to industrial operations. Subsequently, they have been adapted for residential and commercial uses.

The most important and practical reason that water pressure reducing valves (WPRV's), also known as pressure regulators, are used is to protect against the effects of high water main pressures.

Municipal and private water supply companies use pumps and pumping stations to boost water supply pressures in supply mains to be able to supply water for fire fighting, to overcome loss of pressure as the elevation increases in high rise buildings, and to maintain water supply in water towers and supply tanks. Pressure in water supply mains can exceed 200psi.

Most plumbing codes require water pressure reducing valves on domestic systems where the municipal water main's pressure exceeds 80psi. Higher pressures could rupture pipes, damage fixtures, and injure the people using them.

## Promoting Water Conservation

High water pressures waste water. Those concerned with conserving water, a vital and increasingly expensive resource, should be interested in reducing water consumption in order to reduce the cost of operating his or her home or business. Many municipalities today not only charge homeowners and businesses high rates for water consumption, but also charge consumers equally high rates for the disposal of wastewater. Furthermore, reducing water consumption, reduces the excess energy required for heating additional hot water. Watts water pressure reducing valves have proven themselves over the years by promoting efficient water distribution and a longer life for the entire plumbing system, in addition to providing considerable savings in water and energy consumption.

## Why Do You Need a Watts Water Pressure Reducing Valve?

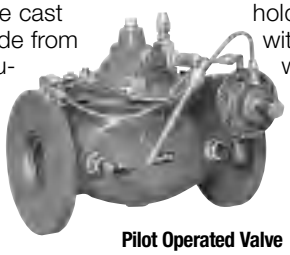
Common practice and analysis indicate that 50psi or less is sufficient inflow pressure for most home and commercial purposes. The higher the pressure the more of your water resources are wasted. Watts water pressure reducing valves will save you money, energy, system maintenance, and on the amount of wastewater returned to the environment (see Fig. 1).

- **Water Savings:** Twice as much water flows through a system at 150psi pressure than at 50psi. Much of this additional water is wasted.
- **Energy Savings:** If less water flows through the system, then less energy is needed to heat domestic hot water. Calculations show that a Watts water pressure reducing valve can save as much as 30% on domestic water heating costs.
- **Wastewater Savings:** When the community's wastewater treatment load is reduced, cost benefits accrue to both the environment and your bottom line. **Many municipalities prorate sewer usage fees based upon the water meter reading.**


Fig. 1 – Faucet with 10 minutes running time

## What is a Water Pressure Reducing Valve?

There are two types of water pressure reducing valves, direct acting and pilot operated. Both use globe or angle style bodies. Valves used on smaller piping diameter units are cast from brass; larger piping diameter units are made from ductile iron. Direct acting valves, the more popular type of a water pressure reducing valves, consist of globe-type bodies with a spring-loaded, heat-resistant diaphragm connected to the outlet of the valve that acts upon a spring. This spring holds a pre-set tension on the valve seat installed with a pressure equalizing mechanism for precise water pressure control.

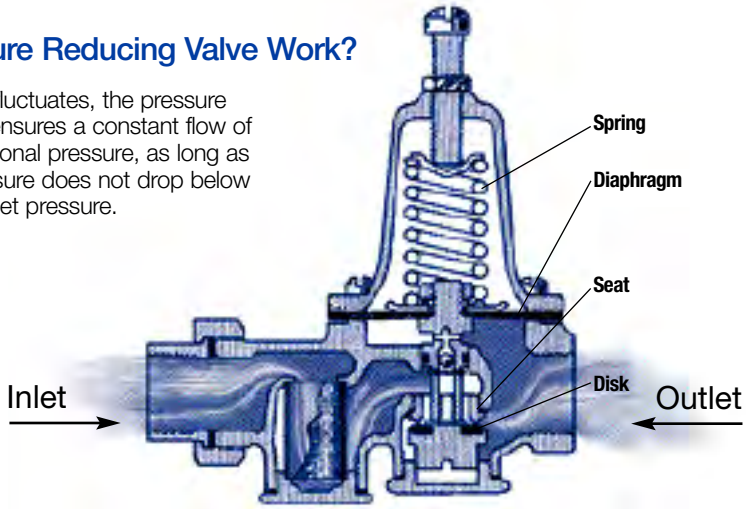


**Pilot Operated Valve**

**Direct Acting Valve**

## How Does a Watts Direct Acting Water Pressure Reducing Valve Work?

Installed in series directly after the water meter in homes, commercial buildings, and manufacturing plants, a Watts water pressure reducing valve automatically reduces the pressure from the water supply main to a lower, more sensible pressure. Water entering the valve from municipal mains is constricted within the valve body and directed through the inner chamber controlled by an adjustable spring loaded diaphragm and disc. Even if the supply water pressure fluctuates, the pressure reducing valve ensures a constant flow of water at a functional pressure, as long as the supply pressure does not drop below the valve's pre-set pressure.




## Thermal Expansion Bypass Technology

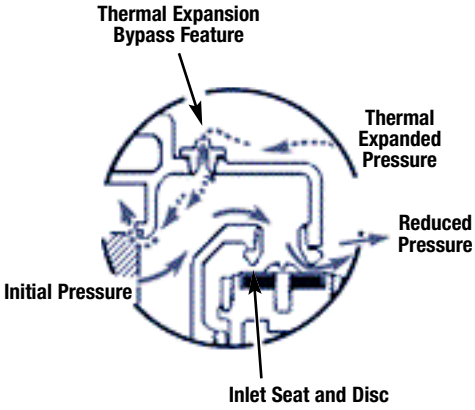



Fig. 2 – Watts Thermal Expansion Bypass feature

The installation of a water pressure reducing valve on the potable water distribution line creates a closed plumbing system, because water can no longer return to the supply main. A water heater installed in the system will cause the water in the heater to expand. This condition is known as thermal expansion. Thermal expansion of water can cause problems with the heater's temperature and pressure (T&P) relief valve. Watts Water Pressure Reducing Valves offer a patented, integral bypass check valve feature that eliminates frequent dripping of T&P relief valves caused by thermal expansion. Under normal operation, the check valve is held closed by the street main pressure. However, should thermal expansion pressure rise just 1psi higher than the supply pressure, the bypass opens, passing the expanded water back to the supply main. Thus, the expanding water is dissipated and the temperature and pressure relief valve is not affected.

The effectiveness of the bypass feature is limited to systems where the supply pressure is less than the pressure setting of the relief valve. The bypass model in no way replaces a water heater temperature and pressure (T&P) relief valve which is a necessary precaution to protect against other causes of excessive pressure. Even with a bypass feature installed, the installation of a backflow preventer or check valve on the water meter and/or high service pressure can result in the need to install a thermal expansion control device. Watts offers both thermal expansion tanks, as well as thermal expansion relief solutions. For more information on these products request literature *PG-ThermExpansion*.

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Sizing a Water Pressure Reducing Valve for Your Application

A properly sized valve prevents noisy operation or premature valve failure. Over sizing water pressure reducing valves can lead to problems such as wire draw under low flow conditions. In general, the minimum flow through a water pressure reducing valve should be 10% to 15% of the maximum flow rate desired in the system. Also, water pressure reducing valves should be selected based on the flow and pressure ranges listed in the literature, not the size of the pipe to which they will be attached. You should select a regulator where operating pressures fall within the middle of its rated range.

For example, if you want to create a working pressure of 50psi within a building with a flow rate of 35 to 40 gpm, and a reduced pressure fall-off of 20psi, working with a supply water pressure of 150psi, using Table I, on page 4 (example 1), you would choose to use a 1" Watts 25AUB-Z3.

## Choosing the Correct Installation Configuration

Watts Water Pressure Reducing Valves can increase your water system's performance, reduce operating costs, and ensure a longer life for other plumbing fixtures. Most simple pressure reducing applications require the installation of a single regulator. However, there are applications that require the use of more than one unit installed in a specific system configuration.

When there is wide variation in pressure between the municipal main's inflow pressure and the functional pressure needed within the building, or when the main's pressure exceeds 200psi, you should consider using a two-stage, serial reduction configuration.

When you want to maintain a continuous supply of water at reduced pressures, you should consider a parallel installation.

## Two-Stage Serial Reduction Configuration

The two-stage serial reduction approach uses two valves in series to reduce or eliminate extreme variations between the water main's inflow pressure and the desired, final reduced pressure. Two-stage reduction is recommended when initial pressures are 200psi or greater, or when the desired pressure reduction ratio is greater than 4:1, e.g., from 200psi to 50psi, or where the inflow pressure fluctuates greatly.

The advantage of two-stage serial reduction is that neither valve is subjected to extreme pressure differential, thus prolonging valve life and delivering more precise pressure regulation.

Selecting the proper valves and pressure settings is straightforward. For example in Fig. 3, the first regulator in series reduces the main's pressure of 250psi to 150psi, and the second regulator reduces the pressure from 150psi to approximately 50psi. A similar ratio should be used no matter the initial inflow pressure.

Valve sizes and capacities should be selected from the capacity table (see Table I) below. Remember, each valve's flow capacity should exceed the total flow requirement of the system. For example, assume that the desired system capacity is 80 gallons per minute (gpm). In reviewing Table I, we find that a 2" Series U5B-Z3 valve and a 1½" Series 223S valve exceed the 80 gpm capacity at either a 10psi or 15psi fall-off pressure (example 2). You should then select the appropriate valves based on relative product cost and performance at lower fall-off pressures.

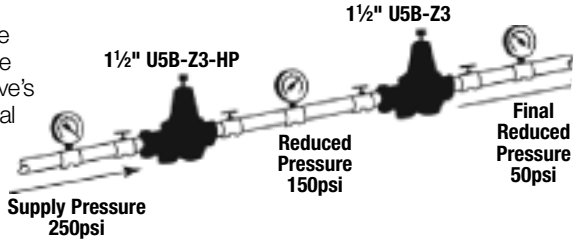



Fig. 3 – Two-stage serial reduction configuration

**Table I**

**Summary of Capacities of Watts Water Pressure Reducing Valves**

Table shows capacity in gallons per minute based on various reduced pressure fall-off.

□ = Example 1 ○ = Example 2

| FALL-OFF PRESSURE | CAPACITY (GALLONS PER MINUTE) | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | U5B-Z3 | | | | | | 25AUB-Z3 | | | | | | 223 - 223S | | | | | | |
| | ½" | ¾" | 1" | 1¼" | 1½" | 2" | ½" | ¾" | 1" | 1¼" | 1½" | 2" | ½" | ¾" | 1" | 1¼" | 1½" | 2" | 2½" |
| **5psi** | 5 | 6 | 7 | 9 | 12 | 30 | 2 | 3 | 5 | 3 | 5 | 15 | 8 | 10 | 12 | 16 | 37 | 50 | 60 |
| **10psi** | 10 | 13 | 20 | 25 | 32 | 60 | 5 | 7 | 10 | 10 | 10 | 28 | 16 | 20 | 29 | 46 | (80) | 100 | 105 |
| **15psi** | 12 | 21 | 30 | 40 | 52 | (84) | 10 | 15 | 22 | 26 | 33 | 55 | 20 | 29 | 40 | 70 | 107 | 136 | 143 |
| **20psi** | 17 | 27 | 40 | 50 | 64 | 100 | 16 | 25 | [38] | 52 | 60 | 85 | 23 | 36 | 50 | 88 | 132 | 162 | 170 |

**Please Note:** For average installations and applications, the capacities shown at **20psi fall-off are recommended** since statistics show that typical demands are well within the total sized capacity of the system. Capacities at 15, 10, and 5psi are offered for comparison and where a lesser fall-off is needed or required for maximum performance, or a specific application.

## Parallel Installation

The parallel installation makes use of two or more smaller size water pressure reducing valves serving a large size supply pipe main (see Table III on page 5 for reference). This approach should be used wherever there is a wide variation of reduced pressure requirements such as an apartment building where demand could be .5 gpm at 1am and 100 gpm at 6am and where you must maintain a continuous water supply. Parallel installations also offer the advantage of providing increased capacity where needed beyond that provided by a single valve. In addition, the parallel configuration improves valve performance for wide variable demands and permits servicing of an individual valve without shutting down water flow to the building completely, thus avoiding costly shutdowns. (The extra piping is not a factor inasmuch as the secondary valve uses the "piping bypass" line that is always recommended in the installation of larger size regulators).

For a two-valve installation as shown, the total capacity of the valves should equal or exceed the capacity required by the system. One valve should be set at 10psi higher delivery pressure than the other. For example, assume that the system is piped for 265 gpm and the delivery

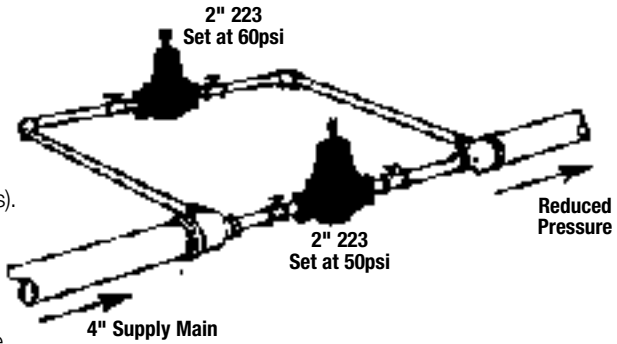



Fig. 4 – Parallel Installation

**Note:** The lower set valve is recommended to be located on the main run with the higher set valve located on the saddle for easier maintenance of this 100% used valve.

**Table II**

**Summary of Capacities of Watts Water Pressure Reducing Valves**

Table shows capacity in gallons per minute based on various reduced pressure fall-off.

◇ = Example 3 ⬭ = Example 4

| FALL-OFF PRESSURE | CAPACITY (GALLONS PER MINUTE) | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 223 - 223S | | | | | | | N223B | | N223F | 127W | |
| | ½" | ¾" | 1" | 1¼" | 1½" | 2" | 2½" | 2½" | 3" | 3" | 3" | 4" |
| **5psi** | 8 | 10 | 12 | 16 | 37 | 50 | 60 | 60 | 85 | 70 | 75 | 80 |
| **10psi** | 16 | 20 | 29 | 46 | 80 | 100 | 105 | 130 | 180 | 120 | 130 | 140 |
| **15psi** | 20 | 29 | 40 | 70 | 107 | ◇136◇ | ◇143◇ | 200 | 280 | 160 | 180 | 230 |
| **20psi** | 23 | 36 | (50) | 88 | 132 | 162 | 170 | 285 | 375 | 210 | 250 | (300) |

pressure required is 50psi. One valve should be set at 50psi, with the other valve set 10psi higher at 60psi. Thus, when low volume is required, the higher set valve operates alone. When a larger volume is needed, both valves open, delivering full line capacity.

Now, select from Table II, on page 4, two valves whose total capacity equals or exceeds 265gpm. Referring to the Series 223 in Table II (example 3), note that the 2" size offers a capacity of 136gpm, at a 15psi fall-off (totaling 272gpm). Or the 2½" size, Series 223 has a capacity of 143gpm at a 15psi fall-off (totaling 286gpm). Thus, the 2" size Series 223 would appear to be adequate since excellent flow would be provided between 15psi and 20psi fall-off, not to mention lesser fall-offs for typical lower demands.

### Parallel Installation of Same Size Regulators

Use Table III, shown below, as a convenient reference for choosing the various combinations of regulators of the same size whose equivalent capacity matches that of a larger valve or pipeline capacity. Although Table II shows only two-valve combinations of the same size, three valves can also be used. It is only necessary that the sum of the valves' capacities equal the system requirements.

For example, as shown in Table II, a system requiring 275gpm at 20psi fall-off pressure could use two of the 3" N223F valves or two 2½" 223's. The final selection would be based on the comparative potential capacity performance of 20psi fall-off pressure.

We recommend restricting installations to two valves for most applications to avoid excessive pressure drop and to assure more precise control of reduced pressure. The number of regulators used should be determined by the engineer's judgment, based on operating conditions for a specific installation.

### Parallel Installation of Different Size Regulators

Another type of parallel installation is one using a two-valve combination of different sizes. This would be practical on larger commercial or institutional installations where supply lines are 2" and larger and where there are frequent periods of low volume demand. In such cases, the smaller valve would have the 10psi higher delivery pressure and thus operate alone to satisfy small demands such as for the flushing of urinals or for supply to drinking fountains. When a larger volume is required, the main regulator would open to satisfy the system demand, for example for an apartment building requiring 275gpm. In this case, selection could be a 4" 127W and a 1" 223 as shown in Table II, Example 4.

**Table IV** – Shows the average rate of water flow in pipe lines which is used quite generally in supply system design. Watts water pressure reducing valves are designed to equal or exceed these capacities.

| PIPE SIZE | GPM FLOW |
|---|---|
| ½" | 10 |
| ¾" | 16 |
| 1" | 25 |
| 1¼" | 41 |
| 1½" | 55 |
| 2" | 84 |
| 2½" | 115 |
| 3" | 165 |
| 4" | 265 |
| 6" | 530 |

**Table III**

| NUMBER OF SMALLER SIZE VALVES OF SAME SIZE TO MEET REQUIRED CAPACITY AT 15psi FALL-OFF PRESSURE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Valve | Capacity Required for System (gpm) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | *30* | *40* | *50* | *60* | *70* | *80* | *90* | *100* | *110* | *120* | *130* | *140* | *150* | *160* | *175* | *200* | *225* | *250* | *275* | *300* | *400* | *450* | *500* | *550* | *600* |
| Series 25AUB-Z3 | 2-¾" | 2-1" | 2-1¼" | 2-1½" | 2-2" | 2-2" | 2-2" | 2-2" | 2-2" | | | | | | | | | | | | | | | | |
| Series U5B-Z3 | 2-¾" | 2-¾" | 2-1" | 2-1" | 2-¼" | 2-¼" | 2-1½" | 2-1½" | 2-2" | 2-2" | 2-2" | 2-2" | 2-2" | 2-2" | | | | | | | | | | | |
| Series 223 | 2-½" | 2-½" | 2-¾" | 2-1" | 2-1" | 2-1" | 2-1¼" | 2-1¼" | 2-1¼" | 2-1¼" | 2-1¼" | 2-1¼" | 2-1½" | 2-1½" | 2-1½" | 2-1½" | 2-2" | 2-2" | 2-2½" | | | | | | |
| Series N223B | | | | | | | | | | | | | | | | | | | | | 2-2½" | 2-2½" | 2-2½" | 2-3" | 2-3" |
| Series N223F | | | | | | | | | | | | | | | | | | | 2-3" | 2-3" | | | | | |
| Series 127W | | | | | | | | | | | | | | | | | | | | 2-3" | 2-4" | 2-4" | | | |

# Lead Free* Construction

Lead Free* construction (designated with an "LF" prefix) is now available as an option in many of our most popular Water Pressure Reducing Valve Series

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

# End Connections

To facilitate installation and servicing of the regulator, Watts offers a variety of end fitting configurations, which include union fittings (female threaded, solder, CPVC, PEX, and Quick-Connect end connections), flanged valves, water meter threads and special lay lengths for water meter installations. Please refer to the valve model for specific availability of end connection options.

# Performance Curves

To match the valve characteristics to system requirements Watts has provided performance curves for each type and size of valve giving the capacities of each with reduced pressure fall-offs up to 25psi.

By the use of these charts, the most suitable and economical valve can be selected to satisfy the job requirements.

The charts or curves for all types are plotted on a simple basis of rate of flow plotted against the reduced pressure fall-off.

In the left hand column, the reduced pressure fall-off is listed up to 25psi. Along the bottom, is listed capacity in terms of gallons per minute flow.

In the reduced pressure fall-off column, the "0" represents the reduced pressure setting of the valve set point when there is no flow (reduced lock-up pressure). It can be any setting within the adjustment range of the valve. The figures below "0" show the pressure fall-off or change the set pressure that results in the flow shown by the curves of the various sizes of valves.

With Watts water pressure reducing valves, the difference between the initial and reduced lock-up (no-flow) pressures has a minor effect upon the valve capacity except when it is less than 50psi. When this difference is less than 50psi, the capacity of the valve is reduced and some minor compensation must be made in the sizing procedure. Therefore, either deduct 20% from capacity shown or add 20% to capacity required.

Where more than one type has adequate capacity, the selection should consider the advantages of the one that would permit smaller pipe sizing and evaluate the relative costs of each.

In solving capacity sizing problems, it is suggested that Chart No. 1 is to be used for a trial solution and the results then compared with other types for final evaluation of the selection.

The following examples are prepared to enable a clear understanding of the use of the charts in selecting valves for specific applications or determining valve capacities under specific pressure conditions.

Refer to specific charts on each page of the guide or engineering sheets.

**EXAMPLE:** Chart No. 1

- Initial supply pressure: 100psi
- Reduced no-flow (set) pressure: 50psi
- Demand: 20 gallons per minute
- Allowable reduced pressure fall-off: 15psi

On Chart No. 1, locate 20 gallons per minute along the bottom line and move up until it intersects a curve line. In this case, it intersects the ¾" size at approximately the 14psi reduced pressure fall-off line. Thus, the ¾" size provides the required capacity at less than a 15psi fall-off and therefore, will give excellent reduced flow pressure service.

In this procedure, also note a ½" Model 223 in Chart No. 3 will meet this capacity at a 15psi fall-off.

**EXAMPLE:** Chart No. 1

- Find the maximum capacity of a 1" sized valve.
- Find the 1" size curve and the intersection with the 20psi pressure fall-off line. Moving down from this intersection, the a flow of 40 is found.
- The valves maximum capacity is 40 gallons per minute.

**Chart No. 1 – Series U5B-Z3**

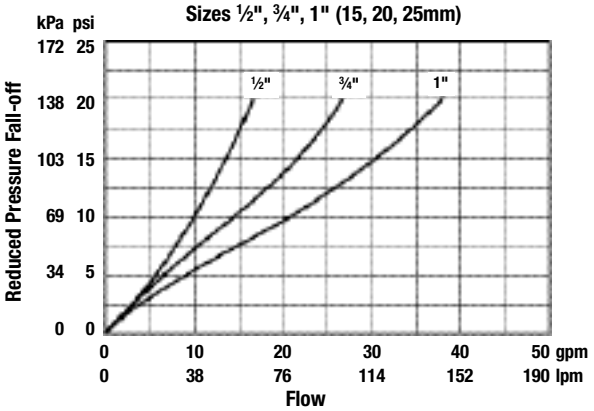
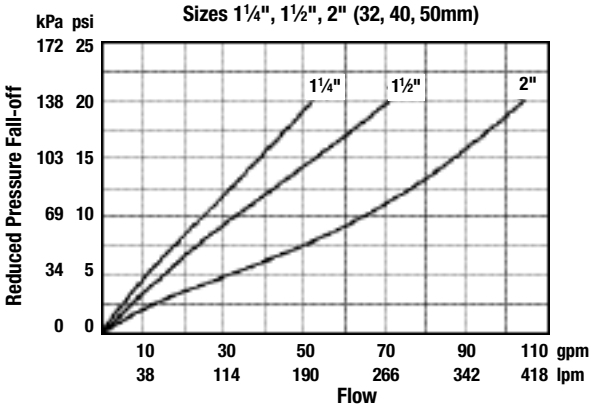
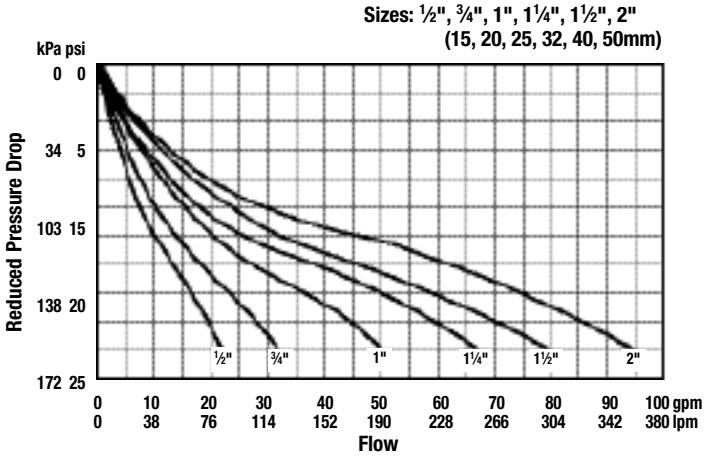


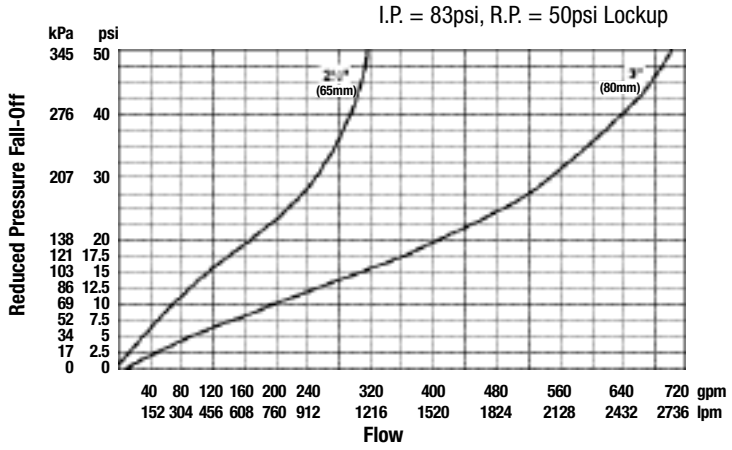

**Chart No. 1A – Series U5B-Z3**



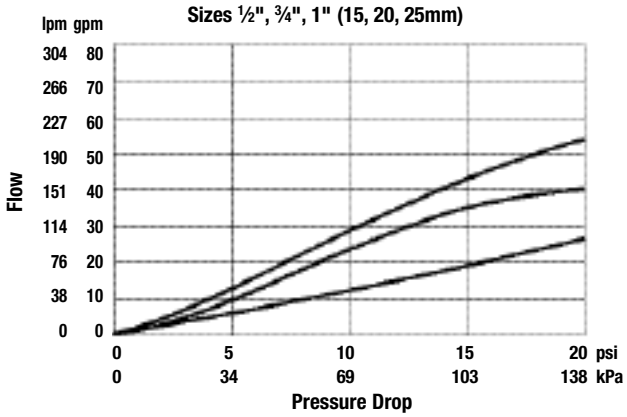
## Chart No. 2 – Series 25AUB-Z3



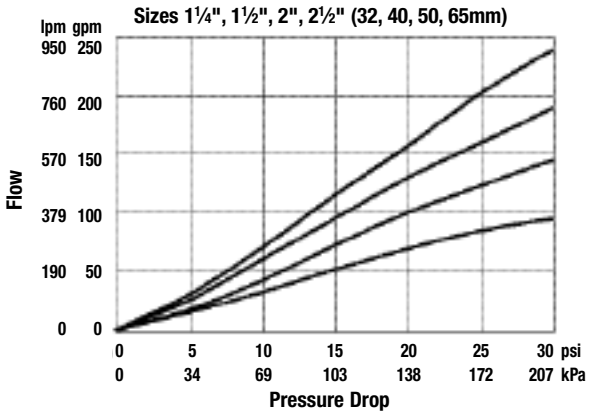

## Chart No. 2A – Series N223B




## Chart No. 3 – Series 223




## Chart No. 3A – Series 223

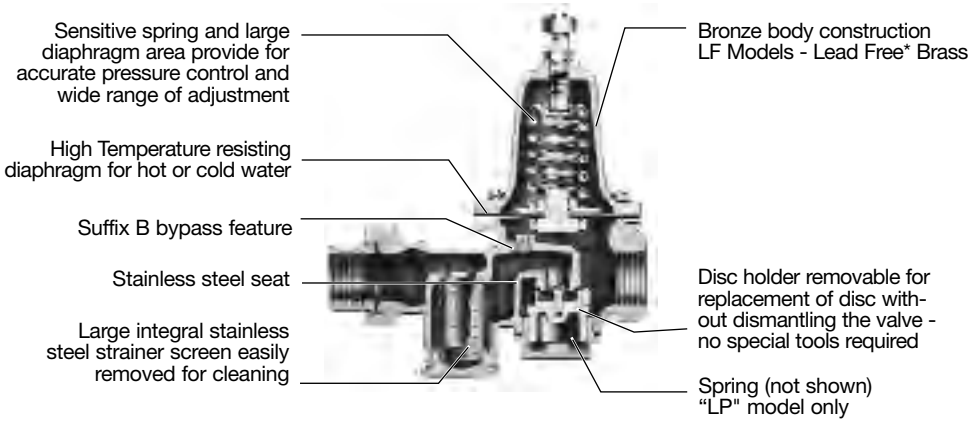


# Series U5B and LFU5B

## Water Pressure Reducing Valves

### Sizes: ½" – 2" (15 – 50mm)

**Series U5B and LFU5B Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. Lead Free* models are available with Lead Free* brass construction to comply with Lead Free* installation requirements. This series is suitable for water supply pressures up to 300psi (21 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). All parts are quickly and easily serviceable without removing the valve from the line. The U5B-Z3's and LFU5B-Z3's standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Lead Free* models available
- Standard construction includes Z3 sealed epoxy coated spring cage and corrosion resistant adjusting and cage screws for accessible outdoors or pit installations
- Integral stainless steel strainer
- Replaceable seat module
- Bronze body construction
- Lead Free* models are constructed with Lead Free* brass body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure (U5B-Z3 and LFU5B-Z3))*
- High temperature resistant reinforced diaphragm for hot water

## Models

| | |
|---|---|
| U5B-Z3<br>LFU5B-Z3 | NPT threaded female union inlet x NPT female outlet w/built in thermal expansion bypass |
| U5B-S-Z3<br>LFU5B-S-Z3 | Solder union inlet x NPT female outlet w/built in thermal expansion bypass |
| 5M3-Z6 | Water meter threaded connections and 7½" (190mm) lay length for new or existing meter box installations. For ⅝" (16mm), ⅝" x ¾" (16 x 20mm) or ¾" (20mm) meter setters or reletters |
| U5B-QC-Z3<br>LFU5B-QC-Z3 | Quick-Connect Single-Union-Inlet end |

## Options

**add Suffix:**

| | |
|---|---|
| G | Gauge tapping ⅛" (3mm) |
| GG | Gauge tapping and 160psi (11 bar) gauge |
| HP | High pressure range 75 – 100psi (5.3 – 6.9 bar) |
| LP | Low pressure range 10 – 35psi (69 – 241 kPa) |

**add Prefix:**

| | |
|---|---|
| LF | Lead Free* construction |

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

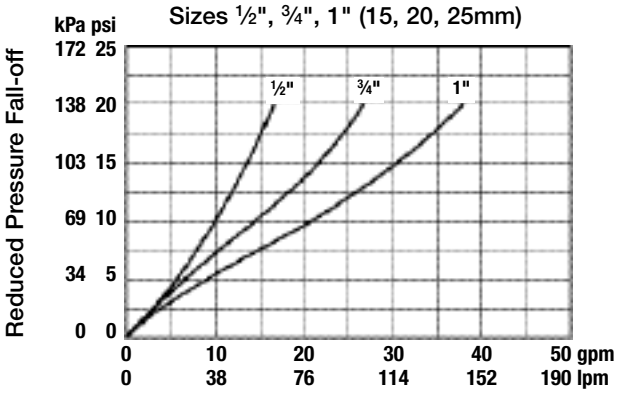
## Pressure – Temperature

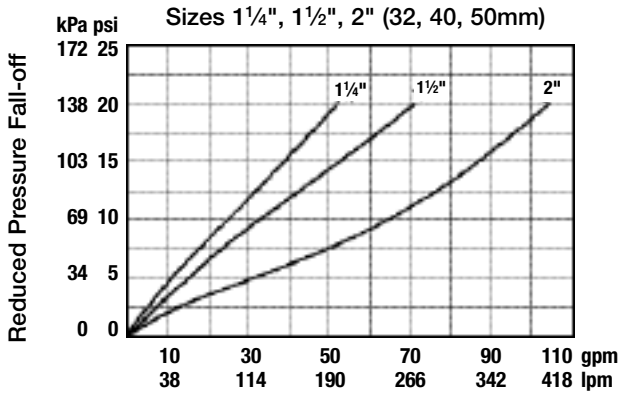
Temperature Range: 33°F – 160°F (0.5°C – 71°C)
Maximum Working Pressure: 300psi (21 bar)
Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kPa)
Standard Reduced Pressure Setting: 50psi (345 kPa)

## Standards

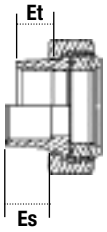
Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; Southern Standard Plumbing Code and listed by IAPMO.

## Capacity

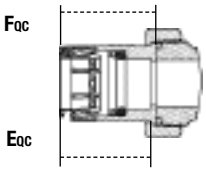


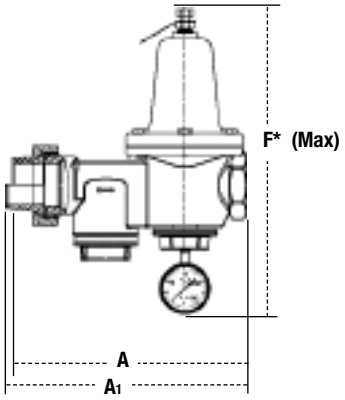



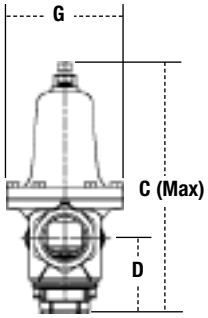

## Dimensions — Weights




**A - U5B-Z3/LFU5B-Z3**
**$A_1$ - U5B-S-Z3/LFU5B-S-Z3**
**$E_T$ - NPT Engagement for tight joint**
**$E_S$ - Female sweat socket depth**
**$E_{QC}$ - Quick-Connect**




| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | | | | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | A1 | | C | | D | | G | | Et | | Es | | $E_{QC}$ | | $F_{QC}$ | | F † | | | |
| *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *lbs.* | *kgs.* |
| ½ | 15 | 5⅝ | 142.8 | 5½ | 139.7 | 5⅞ | 149.2 | 1⅝ | 41.2 | 3 1/16 | 77.7 | 7/16 | 11.1 | ½ | 12.7 | 1 7/16 | 36 | 1½ | 38 | 10¼ | 260.3 | 4 | 1.8 |
| ¾ | 20 | 6 3/16 | 157.1 | 6¼ | 158.7 | 6⅞ | 174.6 | 1⅞ | 47.6 | 3½ | 88.9 | ½ | 12.7 | ¾ | 19 | 1 9/16 | 40 | 1 11/16 | 42 | 11½ | 292.1 | 5 | 2.3 |
| 1 | 25 | 6⅝ | 168.2 | 6¾ | 171.4 | 7⅜ | 187.3 | 2 | 50.8 | 4 | 101.6 | 9/16 | 14.2 | ⅞ | 22.2 | 1 11/16 | 43 | 1¾ | 45 | 12⅛ | 307.9 | 6 | 2.7 |
| 1¼ | 32 | 7 15/16 | 190.5 | 7 11/16 | 195.2 | 8⅜ | 212.7 | 2¼ | 57.1 | 4½ | 113.3 | ⅝ | 15.8 | 1 | 25.4 | – | – | – | – | 13⅜ | 339.7 | 9.4 | 4.3 |
| 1½ | 40 | 9 7/16 | 239.7 | 9¾ | 247.6 | 9⅜ | 238.1 | 2⅞ | 73 | 4¾ | 120.6 | ⅝ | 15.8 | 1⅛ | 28.5 | – | – | – | – | 15 | 381.0 | 14.4 | 6.5 |
| 2 | 50 | 10⅞ | 276.2 | 11½ | 292.1 | 12¼ | 311.1 | 3¼ | 82.5 | 6 | 152.4 | ⅝ | 15.8 | 1⅜ | 34.9 | – | – | – | – | 18¼ | 463.5 | 23 | 10.4 |

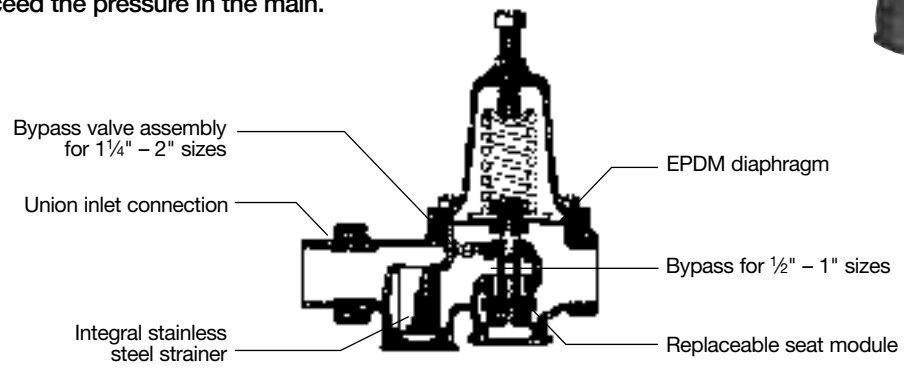
† Dimension includes optional gauge

# Series 25AUB-Z3 and LF25AUB-Z3

## Water Pressure Reducing Valves

### Sizes: ½"– 2" (15 – 50mm)

**Series 25AUB-Z3 and LF25AUB-Z3 Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. This series is suitable for water supply pressures up to 300psi (21 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The LF25AUB-Z3 features Lead Free* construction to comply with Lead Free* installation requirements. The standard setting is 50psi (345 kPa). All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Standard construction includes Z3 sealed epoxy coated spring cage and corrosion resistant adjusting and cage screws for accessible outdoors or pit installations
- Union inlet connection
- Integral stainless steel strainer
- Replaceable seat module
- Bronze body construction
- Lead Free* models with Lead Free* brass body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure*
- High temperature resistant reinforced diaphragm for hot water

## Models

| | |
|---|---|
| 25AUB-Z3<br>LF25AUB-Z3 | NPT threaded female union inlet x NPT female outlet |
| 25AUB-S-Z3<br>LF25AUB-S-Z3 | Solder union inlet x NPT female outlet |
| 25AUB-DU-Z3<br>LF25AUB-DU-Z3 | Double Union – NPT threaded union female inlet and outlet |
| 25AUB-S-DU-Z3<br>LF25AUB-S-DU-Z3 | Double Union – Solder union inlet and outlet |
| 25AUB-DU-THDxPEX-Z3<br>LF25AUB-DU-THDxPEX-Z3 | Double Union – NPT threaded female inlet and PEX union outlet |
| 25AUB-DU-CPVC-Z3<br>LF25AUB-DU-CPVC-Z3 | Double Union – CPVC union inlet and outlet |
| 25AUB-DU-LF-Z3 | Double Union body less union fittings |
| 25AUB-QC-Z3<br>LF25AUB-QC-Z3 | Single Union Quick-Connect inlet |
| 25AUB-DU-QC-Z3<br>LF25AUB-DU-QC-Z3 | Double Union Quick-Connect inlet and outlet |

## Options

**add Suffix:**

| | |
|---|---|
| G | ¼" (3mm) Gauge tapping on ½"-¾" (20, 25mm) all other sizes ⅛" (3mm) |
| GG | Gauge tapping and 160psi (11 bar) gauge |
| HP | High pressure range 75 – 125psi (5.27 – 8.8 bar) |
| LP | Low pressure range 10 – 35psi (69 – 241 kPa). |
| Z7 | 400psi (27.6 bar) initial pressure, ½" (20mm) models only |

**add Prefix:**

LF Lead Free* construction

## Pressure – Temperature

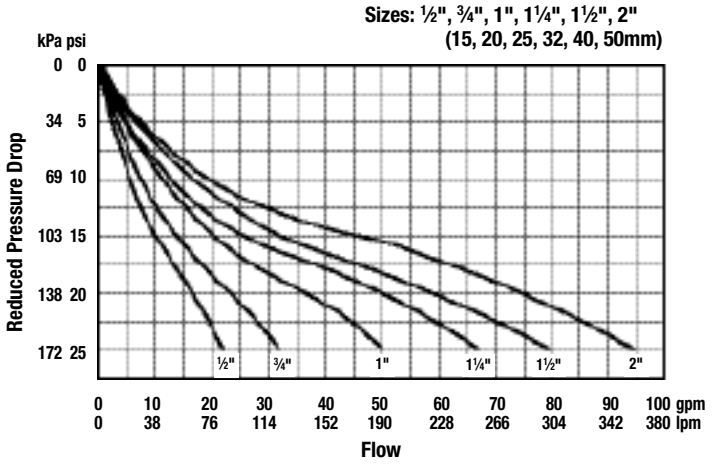
Temperature Range: 33°F – 160°F (0.5°C – 71°C)
Maximum Working Pressure: 300psi (21 bar)
Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kPa)
Standard Reduced Pressure Setting: 50psi (345 kPa)

## Standards

Meets requirements of ASSE Standard 1003: (ANSI A112.26.2: CSA Standard B356; Southern Standard Plumbing Code and listed by IAPMO.
Military Standard MIL-V-18146B Type I.

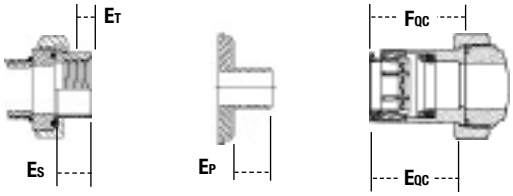
***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**
**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

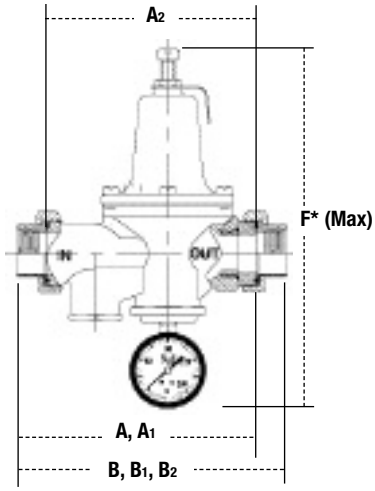
## Capacity

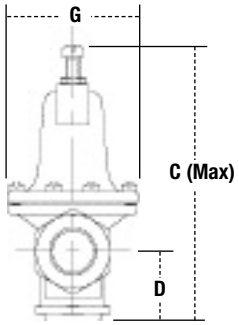



## Dimensions — Weights

**A - 25AUB-Z3/LF25AUB-Z3**
**A1 - 25AUB-S-Z3/LF25AUB-S-Z3**
**A2 - 25AUB-DU-LF-Z3**
**B - 25AUB-DU-Z3/LF25AUB-DU-Z3**
**B1 - 25AUB-S-DU-Z3/LF25AUB-S-DU-Z3**
**B2 - 25AUB-DU-THDxPEX-Z3/LF25AUB-DU-THDxPEX-Z3**
**ET - NPT Engagement for tight joint**
**ES - Female sweat socket depth**
**EP - PEX end connection**
**EQC - Quick-Connect union**




| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | A1 | | A2 | | B | | B1 | | B2 | | C | |
| *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* |
| ½ | 15 | 5 3/8 | 137 | 5 5/16 | 135 | 5 3/16 | 132 | 6 7/16 | 164 | 6 3/8 | 162 | – | – | 7 | 178 |
| ¾ | 20 | 5 5/16 | 135 | 5 ½ | 140 | 5 ¼ | 133 | 6 ½ | 165 | 6 7/8 | 175 | 6 ¾ | 171 | 7 | 178 |
| 1 | 25 | 6 | 152 | 6 ¼ | 159 | 5 7/8 | 149 | 7 3/8 | 187 | 7 13/16 | 198 | 7 11/16 | 195 | 8 | 203 |
| 1¼ | 32 | 8 ¾ | 222 | 8 15/16 | 227 | 8 ¼ | 210 | 10 ¾ | 273 | 11 | 279 | – | – | 9 | 229 |
| 1½ | 40 | 8 ¾ | 222 | 9 | 229 | 8 ¼ | 210 | 10 ¾ | 273 | 11 3/16 | 284 | – | – | 9½ | 241 |
| 2 | 50 | 9 ¼ | 235 | 10 | 254 | 8 ¾ | 222 | 11 5/16 | 287 | 12 11/16 | 322 | – | – | 11 ¼ | 286 |

| DIMENSIONS (APPROX.) | | | | | | | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D | | F † | | G | | ET | | ES | | EP | | EQC | | FQC | | | |
| *in* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *lbs.* | *kgs.* |
| 1½ | 38 | 9 7/16 | 240 | 3 1/8 | 79 | ½ | 13 | ½ | 13 | – | – | 1 7/8 | 36 | 1½ | 38 | 3.5 | 1.6 |
| 1½ | 38 | 9 7/16 | 240 | 3 1/8 | 79 | ½ | 13 | ¾ | 19 | 5/8 | 16 | 1 9/16 | 40 | 1 11/16 | 42 | 3.5 | 1.6 |
| 1¾ | 44 | 10 7/16 | 266 | 3 5/8 | 92 | 5/8 | 16 | 15/16 | 23 | 13/16 | 21 | 1 11/16 | 43 | 1¾ | 45 | 6.5 | 3.0 |
| 2 1/8 | 54 | 11 7/16 | 291 | 3 5/8 | 92 | 5/8 | 16 | 1 | 25 | – | – | – | – | – | – | 10 | 4.5 |
| 2 3/8 | 60 | 11 15/16 | 304 | 4 1/16 | 103 | 5/8 | 16 | 1 1/16 | 28 | – | – | – | – | – | – | 10 | 4.5 |
| 3¼ | 83 | 13 11/16 | 348 | 4 ¾ | 121 | 5/8 | 16 | 15/16 | 34 | – | – | – | – | – | – | 15 | 6.8 |

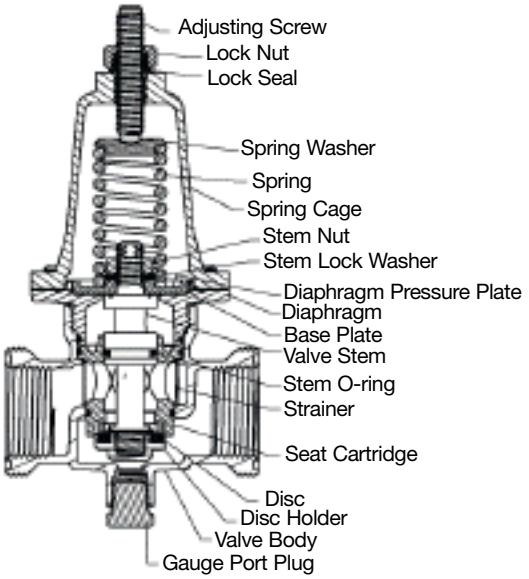
† Dimension includes optional gauge

# Series X65B and LFX65B

## Water Pressure Reducing Valves†

### Sizes: ½"– 2" (15 – 50mm)

**Series X65B and LFX65B Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. The X65B and LFX65B are a cartridge style regulator and is orderable three ways: As a complete, ready-to-install regulator, or as a separate Rough-in Kit consisting of a bronze body with integral strainer, or as a separate Cartridge Assembly. The LFX65B feature a Lead Free* brass body to comply with Lead Free* installation requirements. The X65B and LFX65B deliver superior flow performance with low fall off pressure while reducing flow noise with its engineered seat design. The X65B and LFX65B are a 100 percent balanced valve, as inlet pressures fluctuate, reduced pressure does not. The X65B and LFX65B incorporate control valve style stem and disc guidance for accuracy and longevity. They are available with interchangeable union tailpiece kits in standard-sized solder and threaded tailpieces for Quick-Connect, PEX and CPVC options. The X65B and LFX65B Cartridge Assemblies are available in standard pressure range of 20 - 80psi (138 - 552 kPa), preset at the factory to 50psi (345 kPa) or high-pressure range (HP) of 50 - 150psi (345 to 1034 kPa) preset at the factory to 100psi (6.9 bar). The standard bypass feature** permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main supply.**




## Features

- Lead Free* models are available
- Cartridge Style valve enables quick and easy installation or service in-line
- Greater flow performance with lower fall off pressure for consistent operation
- Seat design reduces flow noise
- 100% balanced valve, unique to Watts, provides reliable flow performance
- Full size range available rated to 400psi to meet your commercial and residential applications
- Cartridge Assemblies available in standard and high-pressure (HP) models
- Bypass feature in Cartridge Assembly controls thermal expansion pressure**
- Standard construction includes sealed spring cage and corrosion resistant adjusting and cage screws for accessible outdoor or pit installations
- High performance thermoplastic integral seat cartridge
- Union inlet connection and tailpiece kits for solder, Quick-Connect, PEX, CPVC and threaded to meet your commercial and residential applications.
- High temperature resistant reinforced diaphragm for hot water

†A water saving test program concluded that reducing the supply pressure from 80 to 50psi (551-345 kPa) resulted in a water savings of 30%.

## Models

| | |
|---|---|
| X65B<br>LFX65B | NPT threaded female inlet x NPT female outlet |
| X65BU<br>LFX65BU | NPT threaded union inlet x NPT female outlet |
| X65BUS<br>LFX65BUS | Solder union inlet x NPT female outlet |
| X65BDU<br>LFX65BDU | Double Union – NPT threaded union female inlet and outlet |
| X65BDUS<br>LFX65BDUS | Double Union – Solder union inlet and outlet |
| X65BU-QC<br>LFX65BU-QC | Single Union – Quick-Connect union inlet x NPT female outlet† |
| X65BDU-QC<br>LFX65BDU-QC | Double Union – Quick-Connect union inlet and outlet† |
| X65BDU-CPVC<br>LFX65BDU-CPVC | Double Union - CPVC union inlet x CPVC union outlet†† |
| X65BDU-PEX<br>LFX65BDU-PEX | Double Union - PEX union inlet x PEX union outlet† |
| X65B-HP<br>LFX65B-HP | High Pressure – NPT threaded female inlet x NPT female outlet |

†For sizes 1/2", 3/4", 1 (15, 20, 25mm) only
††For sizes 3/4", 1" (20, 25mm) only

## Materials

| | |
|---|---|
| Body: | Bronze<br>LF Model constructed from Lead Free* brass |
| Seat: | Thermoplastic cartridge |
| Integral Strainer: | Stainless steel |
| Diaphragm: | Reinforced EPDM |
| Valve Disc: | EPDM |

## Pressure – Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°C)
Maximum Working Pressure: 400psi (27.6 bar)
Adjustable Reduced Pressure Range: 20 – 80psi (138 – 552 kPa)
Standard Reduced Pressure Setting: 50psi (345 kPa)
HP Reduced Pressure Range: 50 – 150psi (345 – 1034 kPa)
HP Reduced Pressure Setting: 100psi (6.9 bar)

## Options

**add Suffix:**

| | |
|---|---|
| G | Gauge tapping, ¼" (8mm) |
| GG | Gauge tapping and 160psi (11.0 bar) gauge |
| HP | High pressure range 50 – 150psi (3.4 – 10.3 bar) |

**add Prefix:**

| | |
|---|---|
| LF | Lead Free* construction |

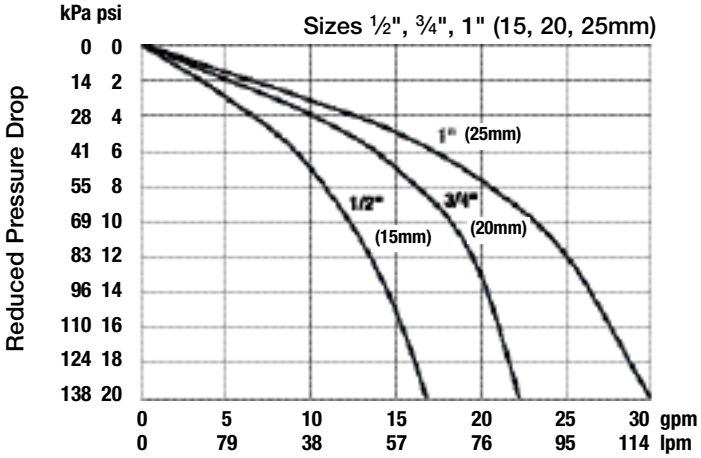
***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

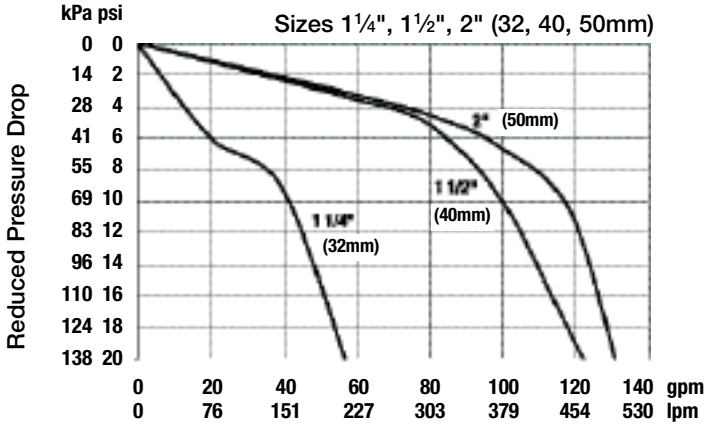
**Note:** **The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Standards

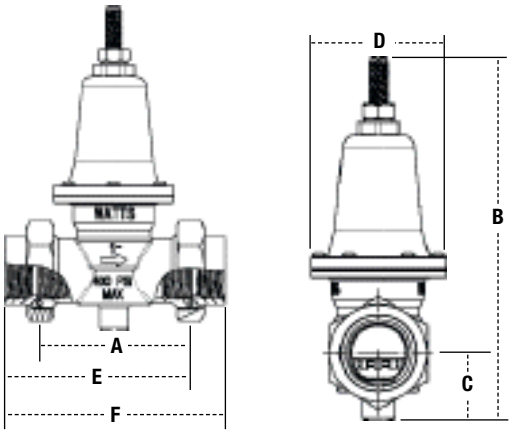
Certified to ASSE Standard 1003, and listed by ASSE and IAMPO.

## Capacity




## Dimensions — Weights



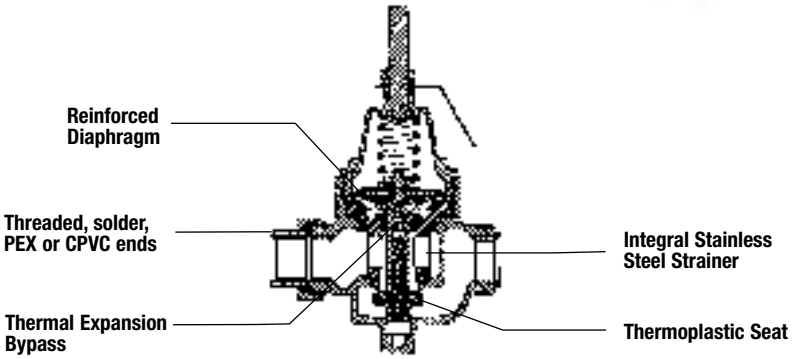

| SIZE (DN) | | DIMENSIONS | | | | | | | | | | | | | | | | | | | | WEIGHTS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | B (MAX) STD | | B (MAX) HP | | C | | D (DIA) | | E (Threaded) | | E (Sweat) | | E (QC) | | F (Threaded) | | F (Sweat) | | F (QC) | | | |
| *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in* | *mm* | *in* | *mm* | *in.* | *mm* | *lbs.* | *kgs.* |
| ½ | 15 | 3 | 76.7 | 5 7/16 | 137.7 | 6 11/16 | 169.9 | 1 5/16 | 32.8 | 2 7/16 | 61.2 | 3 11/16 | 93.0 | 3 5/8 | 91.9 | 4 1/2 | 115 | 4 5/16 | 109.2 | 4 1/4 | 107.2 | 6 | 153 | 1.43 | 0.65 |
| ¾ | 20 | 3 1/8 | 79.8 | 5 7/16 | 137.7 | 6 11/16 | 169.9 | 1 5/16 | 32.8 | 2 7/16 | 61.2 | 3 3/4 | 96.0 | 4 | 101.1 | 4 13/16 | 122 | 4 7/16 | 112.3 | 4 13/16 | 122.4 | 6 1/2 | 165 | 1.52 | 0.69 |
| 1 | 25 | 3 9/16 | 90.4 | 6 3/16 | 157.2 | 7 14/16 | 199.9 | 1 3/8 | 34.5 | 2 3/4 | 70.6 | 4 15/16 | 110.2 | 4 9/16 | 116.1 | 5 5/16 | 135 | 5 1/8 | 130.0 | 5 9/16 | 141.7 | 7 1/16 | 179 | 2.22 | 1.01 |
| 1 1/4 | 32 | 4 5/16 | 110.2 | 6 15/16 | 176.0 | 9 13/16 | 248.9 | 1 9/16 | 39.4 | 3 1/4 | 81.8 | 5 5/8 | 142.7 | 5 3/8 | 136.9 | – | – | 6 7/8 | 175.3 | 6 7/16 | 163.6 | – | – | 3.61 | 1.64 |
| 1 1/2 | 40 | 5 1/2 | 140.2 | 11 3/4 | 297.9 | 16 3/4 | 426.0 | 1 7/8 | 47.5 | 4 9/16 | 115.8 | 6 13/16 | 142.7 | 6 11/16 | 169.9 | – | – | 8 1/16 | 205.2 | 7 7/8 | 199.6 | – | – | 9.27 | 4.20 |
| 2 | 50 | 5 1/2 | 140.2 | 11 3/4 | 297.9 | 16 3/4 | 426.0 | 1 7/8 | 47.5 | 4 9/16 | 115.8 | 6 13/16 | 173.5 | 6 15/16 | 176.5 | – | – | 8 1/8 | 206.8 | 8 3/8 | 212.9 | – | – | 9.59 | 4.35 |

# Series N55B and LFN55B

## Water Pressure Reducing Valves

### Sizes: ½" – 1" (15 – 25mm)

**Series N55B-M1 and LFN55B-M1 Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. The LFN55B features Lead Free* construction to comply with Lead Free* Installation requirements. This series is suitable for water supply pressures up to 400psi (27.6 bar) and may be adjusted from 25 – 75psi (172 – 517kPa). The standard setting is 50psi (345kPa). All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Double union inlet & outlet connections (option DU)
- Integral stainless steel strainer
- Thermoplastic seat
- Bronze body construction
- Lead Free* models with Lead Free* brass body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure*
- Sealed spring cage on all models for accessible outdoors or pit installations

## Models

| | |
|---|---|
| N55B-M1<br>LF N55B-M1 | NPT threaded female inlet x NPT female outlet |
| N55BU-M1<br>LFN55BU-M1 | NPT threaded union inlet x NPT female outlet |
| N55BU-S-M1<br>LF N55BU-S-M1 | Solder union inlet x NPT female outlet |
| N55BDU-M1<br>LFN55BDU-M1 | Double Union – NPT threaded union female inlet and outlet |
| N55BDU-S-M1<br>LF N55BDU-S-M1 | Double Union – Solder union inlet and outlet |
| N55BDU-PEX-M1<br>LF N55BDU-PEX-M1 | Double Union – PEX union inlet and outlet |
| N55BDU-CPVC-M1<br>LFN55BDU-CPVC-M1 | Double Union – CPVC union inlet and outlet |
| N55BDU-QC-M1<br>LFN55BDU-QC-M1 | Double Union – Quick-Connect inlet and outlet |
| N55BU-QC-M1<br>LF N55BU-QC-M1 | Single Union – Quick-Connect inlet |

## Pressure — Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°C)
Maximum Working Pressure: 400psi (27.6 bar)
Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517kPa)
Standard Reduced Pressure Setting: 50psi (345kPa)

## Options

**add Suffix:**

G Gauge tapping ⅛" (3mm)
GG Gauge tapping and 160psi (11 bar) gauge
LP Low pressure range 10-35psi (69-241 kPa)

**add Prefix:**

LF Lead Free* construction

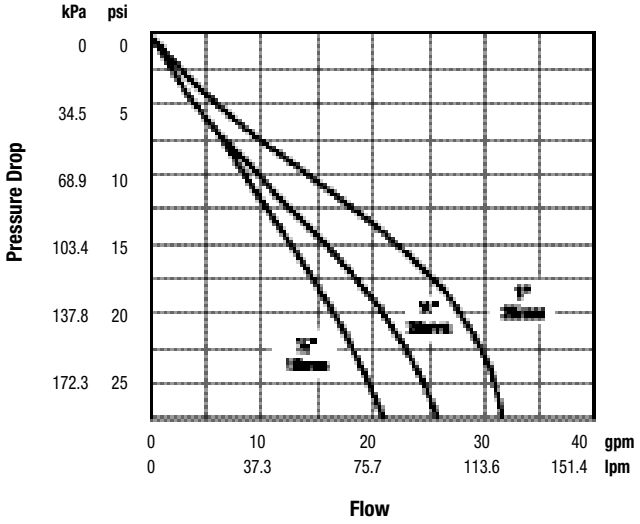
## Standards

Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; Certified by NSF to ANSI/NSF Standard 61-8, (LF N55B-M1 models only). Listed by IAPMO and City of Los Angeles.

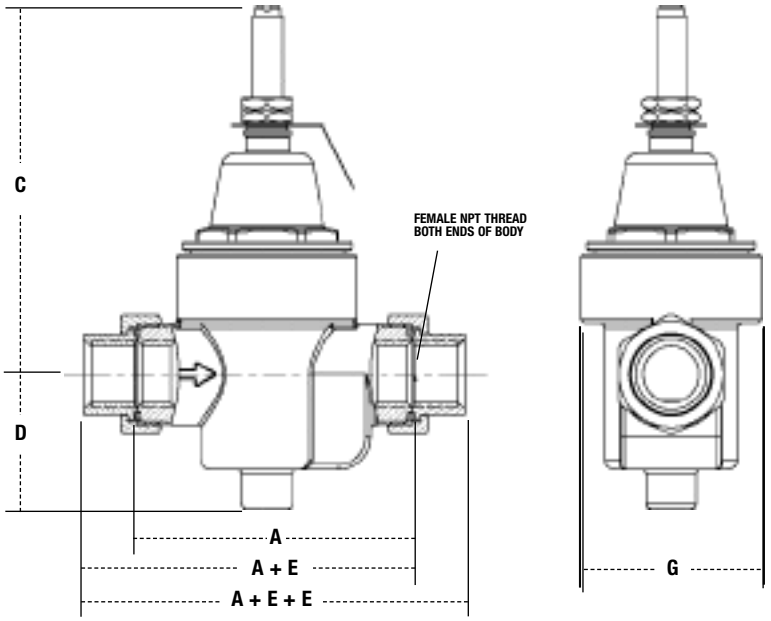
***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity



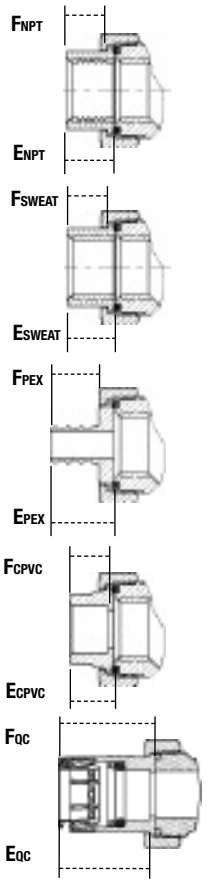

## Dimensions — Weights




ABOVE VALVE SHOWN WITH SINGLE NPT UNION CONNECTION ON INLET

VALVES MAY BE ORDERED WITH 0,1,OR 2 UNION CONNECTIONS USING ANY COMBINATION OF NPT, SOLDER, PEX OR CPVC CONNECTIONS REQUIRED

"F" DIMENSIONS ARE APPROXIMATE ENGAGEMENT LENGTHS.



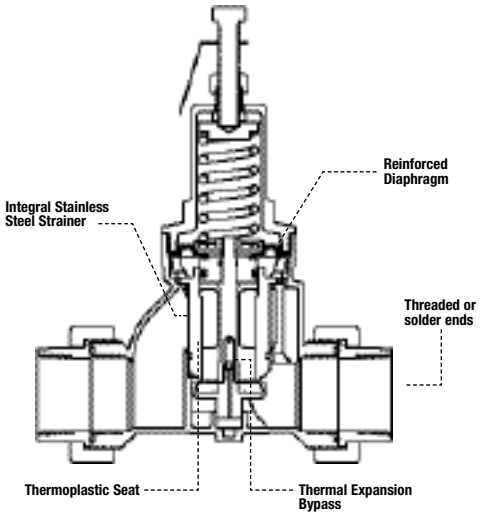

| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | | | | | | | | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | C | | D | | ENPT | | ESWEAT | | EPEX | | E | | EQC | | FNPT | | FSWEAT | | FPEX | | FCPVC | | FQC | | G | | | |
| in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lbs. | kgs. |
| ½ | 15 | 3 7/16 | 88 | 4 9/16 | 116 | 1 11/16 | 43 | 5/8 | 16 | 5/8 | 15 | 13/16 | 21 | 9/16 | 15 | 1 7/16 | 36 | ½ | 13 | ½ | 13 | 5/8 | 16 | ½ | 13 | 1 ½ | 38 | 2 ¼ | 57 | 2 | .91 |
| ¾ | 20 | 3 7/16 | 88 | 4 9/16 | 116 | 1 11/16 | 43 | 5/8 | 16 | 7/8 | 21 | 15/16 | 24 | 13/16 | 21 | 1 9/16 | 40 | 9/16 | 14 | ¾ | 19 | 5/8 | 16 | ¾ | 18 | 1 11/16 | 42 | 2 ¼ | 57 | 2 | .91 |
| 1 | 25 | 4 1/8 | 105 | 4 9/16 | 116 | 1 11/16 | 43 | ¾ | 20 | 1 | 26 | 1 1/8 | 29 | 1 1/16 | 26 | 1 11/16 | 43 | 1 1/16 | 17 | 15/16 | 23 | 13/16 | 21 | 15/16 | 23 | 1 ¾ | 45 | 2 ¼ | 57 | 3 | 1.36 |

# Series N55B and LFN55B

## Water Pressure Reducing Valves

### Sizes: 1¼" – 2" (32 – 50mm)

**Series N55B and LFN55B Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption.The LFN55B features Lead Free* construction to comply with Lead Free* installation requirements. This series is suitable for water supply pressures up to 300psi (21 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Bronze cage
- Double union inlet & outlet connections
- Integral stainless steel strainer
- Thermoplastic seat
- Bronze body construction
- Lead Free* models with Lead Free* brass body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure*
- Sealed spring cage on all models for accessible outdoors or pit installations

## Models

| | |
|---|---|
| N55B<br>LFN55B | NPT threaded female inlet x NPT female outlet |
| N55BU<br>LFN55BU | NPT threaded union inlet x NPT female outlet |
| N55BU-S<br>LFN55BU-S | Solder union x NPT female outlet |
| N55BDU<br>LFN55BDU | Double Union – NPT threaded union female inlet and outlet |
| N55BDU-S<br>LFN55BDU-S | Double Union – Solder union inlet and outlet |

## Options

**add Suffix:**

G Gauge tapping ⅛" (3mm)

GG Gauge tapping and 160psi (11 bar) gauge

**add Prefix:**

LF Lead Free* construction

## Pressure – Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°C)

Maximum Working Pressure: 300psi (21 bar)

Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kPa)

Standard Reduced Pressure Setting: 50psi (345 kPa)

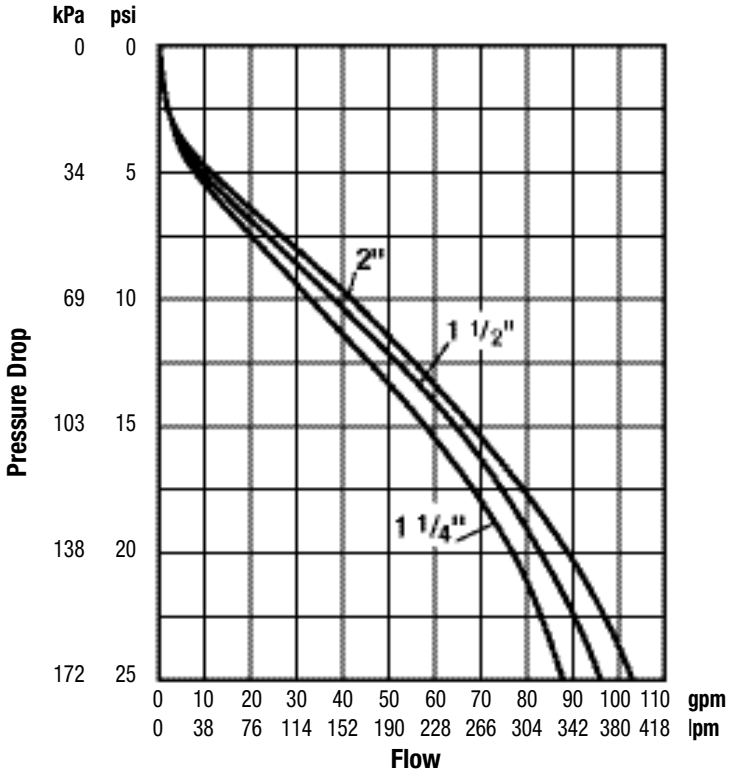
## Standards

Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; and listed by IAPMO.

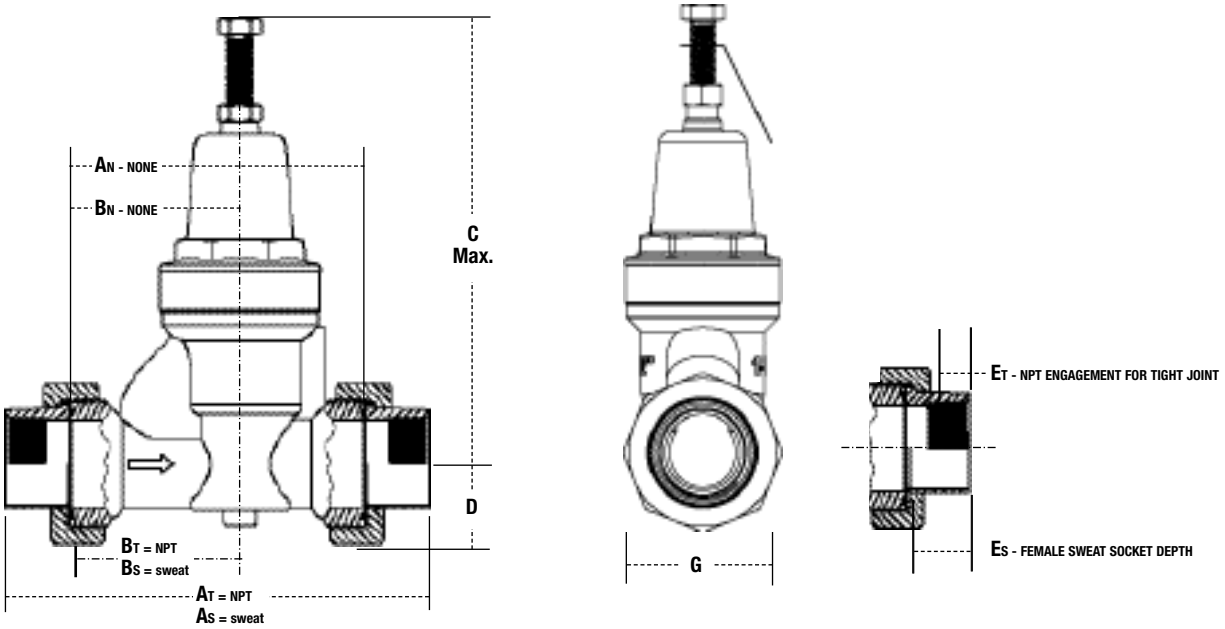
***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity




## Dimensions — Weights



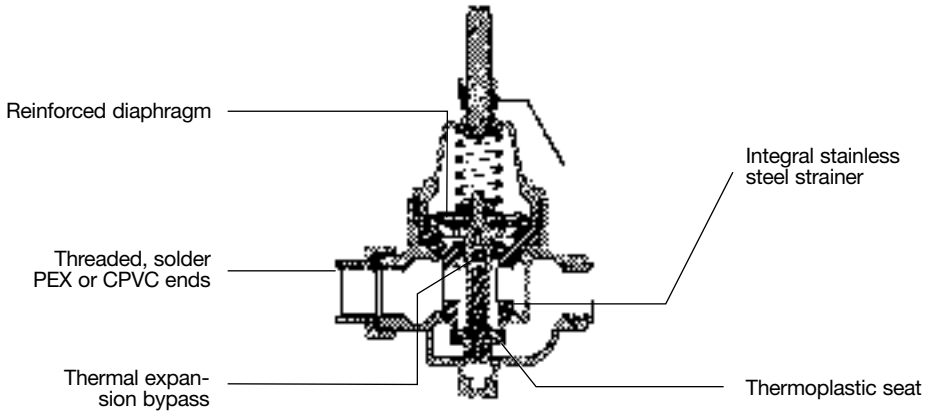

| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | | | | | | | | | | | WEIGHTS | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $A_T$ | | $A_S$ | | $A_N$ | | $B_T$ | | $B_S$ | | $B_N$ | | C | | D | | $E_T$ | | $E_S$ | | G | | | |
| *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in* | *mm* | *in* | *mm* | *in.* | *mm* | *lbs.* | *kgs.* |
| 1¼ | 32 | 8⅜ | 213 | 7 15/16 | 201 | 5 13/16 | 148 | 4⅜ | 111 | 4⅛ | 105 | 3 1/16 | 78 | 8⅞ | 225 | 1 7/16 | 36 | 11/16 | 17 | 1 | 25 | 3¼ | 82 | 7.5 | 3.4 |
| 1½ | 40 | 8⅜ | 213 | 8 3/16 | 207 | 5 13/16 | 148 | 4 9/16 | 115 | 4 7/16 | 112 | 3¼ | 83 | 8⅞ | 225 | 1⅝ | 41 | 11/16 | 17 | 1⅛ | 28 | 3¼ | 82 | 9 | 4.0 |
| 2 | 50 | 9 | 228 | 9¼ | 235 | 6⅜ | 162 | 5 | 126 | 5 1/16 | 129 | 3 11/16 | 93 | 8⅞ | 225 | 1⅞ | 47 | 11/16 | 17 | 1⅜ | 34 | 3 11/16 | 93 | 10 | 4.5 |

# Series N45B-M1 and LFN45B-M1

## Water Pressure Reducing Valves

### Sizes: ½" – 1" (15 – 25mm)

**Series N45B-M1 and LFN45B-M1 Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. The LFN45B features Lead Free* construction to comply with Lead Free* installation requirements. This series is suitable for water supply pressures up to 400psi (27.6 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Double union inlet & outlet connections (option DU)
- Integral stainless steel strainer
- Thermoplastic seat & cage
- Bronze body construction
- Lead Free* models with Lead Free* brass body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure*
- Sealed spring cage on all models for accessible outdoors or pit installations

## Models

| | |
|---|---|
| N45B-M1<br>LFN45B-M1 | NPT threaded female inlet x NPT female outlet |
| N45BU-M1<br>LFN45BU-M1 | NPT threaded union inlet x NPT female outlet |
| N45BU-S-M1<br>LFN45BU-S-M1 | Solder union inlet x NPT female outlet |
| N45BDU-M1<br>LF N45BDU-M1 | Double Union – NPT threaded union female inlet and outlet |
| N45BDU-S-M1<br>LFN45BDU-S-M1 | Double Union – Solder union inlet and outlet |
| N45BDU-PEX-M<br>LFN45BDU-PEX-M1 | Double Union – PEX union inlet and outlet |
| N45BDU-CPVC-M1<br>LFN45BDU-CPVC-M1 | Double Union – CPVC union inlet and outlet |
| N45BDU-QC-M1<br>LFN45BDU-QC-M1 | Double Union Quick-Connect inlet and outlet |
| N45DU-QC-M1<br>LFN45DU-QC-M1 | Single Union Quick-Connect inlet |

## Options

**add Suffix:**

G Gauge tapping ⅛" (3mm)

GG Gauge tapping and 160psi (11 bar) gauge

**add Prefix:**

LF Lead Free* construction

## Pressure – Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°C)

Maximum Working Pressure: 400psi (27.6 bar)

Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kpa)

Standard Reduced Pressure Setting: 50psi (345 kpa)

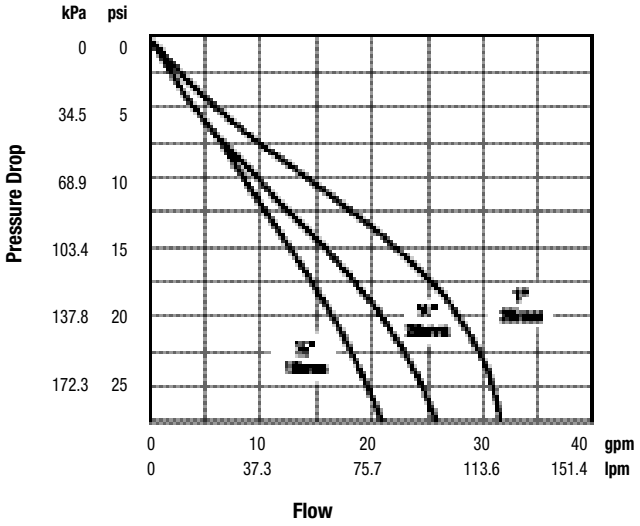
## Standards

Meets requirements of ASSE Standard 1003; (ANSI A112.26.2) and CSA Standard B356; Certified by NSF to ANSI/NSF Standard 61-8, (LF N45B-M1 models only). Listed by IAPMO and City of Los Angeles.

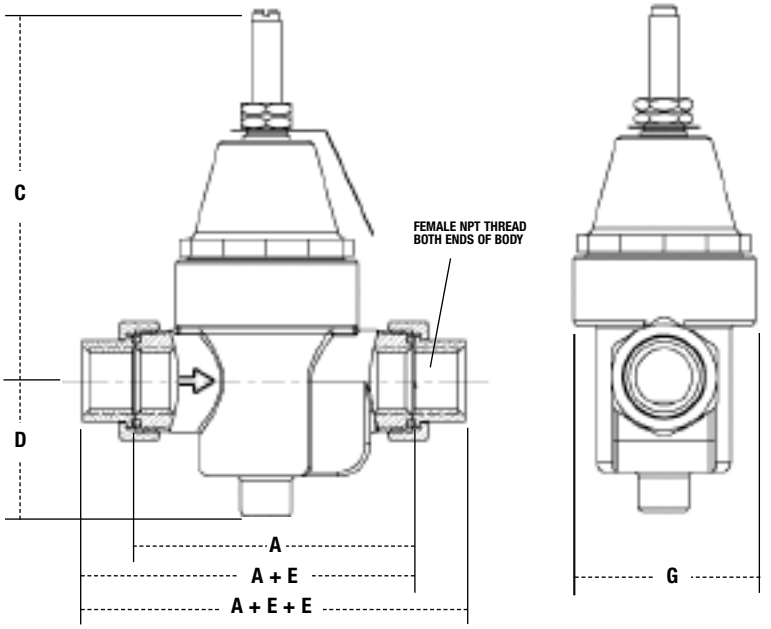
***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity



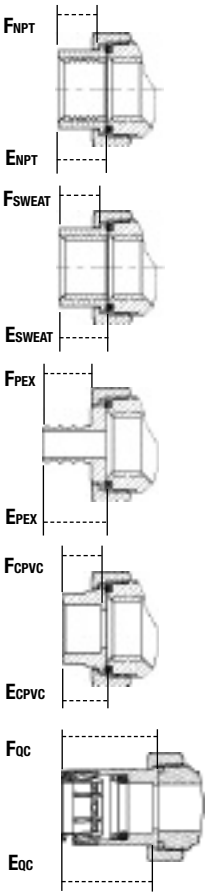

## Dimensions — Weights




ABOVE VALVE SHOWN WITH SINGLE NPT UNION CONNECTION ON INLET

VALVES MAY BE ORDERED WITH 0,1,OR 2 UNION CONNECTIONS USING ANY COMBINATION OF NPT, SOLDER, PEX OR CPVC CONNECTIONS REQUIRED

"F" DIMENSIONS ARE APPROXIMATE ENGAGEMENT LENGTHS.

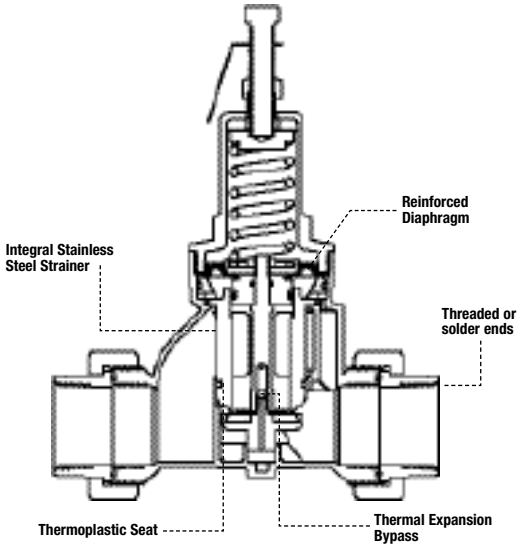



| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | | | | | | | | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | C | | D | | ENPT | | ESWEAT | | EPEX | | ECPVC | | EQC | | FNPT | | FSWEAT | | FPEX | | FCPVC | | FQC | | G | | | |
| in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | `mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | lbs. | kgs. |
| ½ | 15 | 3 7/16 | 88 | 4 9/16 | 116 | 1 11/16 | 43 | 5/8 | 16 | 5/8 | 15 | 13/16 | 21 | 9/16 | 15 | 1 7/8 | 36 | ½ | 13 | ½ | 13 | 5/8 | 16 | ½ | 13 | 1½ | 38 | 2¼ | 57 | 2 | .91 |
| ¾ | 20 | 3 7/16 | 88 | 4 9/16 | 116 | 1 11/16 | 43 | 5/8 | 16 | 7/8 | 21 | 15/16 | 24 | 13/16 | 21 | 1 9/16 | 40 | 9/16 | 14 | ¾ | 19 | 5/8 | 16 | ¾ | 18 | 1 11/16 | 42 | 2¼ | 57 | 2 | .91 |
| 1 | 25 | 4 1/8 | 105 | 4 9/16 | 116 | 1 11/16 | 43 | ¾ | 20 | 1 | 26 | 1 1/8 | 29 | 1 1/16 | 26 | 1 11/16 | 43 | 11/16 | 17 | 15/16 | 23 | 13/16 | 21 | 15/16 | 23 | 1¾ | 45 | 2¼ | 57 | 3 | 1.36 |

# Series N45B and LFN45B
## Water Pressure Reducing Valves

### Sizes: 1¼" – 2" (32 – 50mm)

**Series N45B and LFN45B Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. The LFN45B features Lead Free* construciton to comply iwth Lead Free* installation requirements. This series is suitable for water supply pressures up to 300psi (21 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




### Features

- Double union inlet & outlet connections
- Integral stainless steel strainer
- Thermoplastic seat & cage
- Bronze body construction
- Lead Free* models with Lead Free* brass body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure*
- Sealed spring cage on all models for accessible outdoors or pit installations

### Models

| | |
|---|---|
| N45B<br>LFN45B | NPT threaded female inlet x NPT female outlet |
| N45BU<br>LFN45BU | NPT threaded union inlet x NPT threaded union outlet |
| N45BU-S<br>LFN45BU-S | Solder union inlet x NPT female outlet |
| N45BDU<br>LFN45BDU | Double Union – NPT threaded union female inlet and outlet |
| N45BDU-S<br>LFN45BDU-S | Double Union – Solder union inlet and outlet |

### Options

**add Suffix:**

G Gauge tapping
GG Gauge tapping and 160psi (11 bar) gauge

### Pressure – Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°C)
Maximum Working Pressure: 300psi (21 bar)
Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kPa)
Standard Reduced Pressure Setting: 50psi (345 kPa)

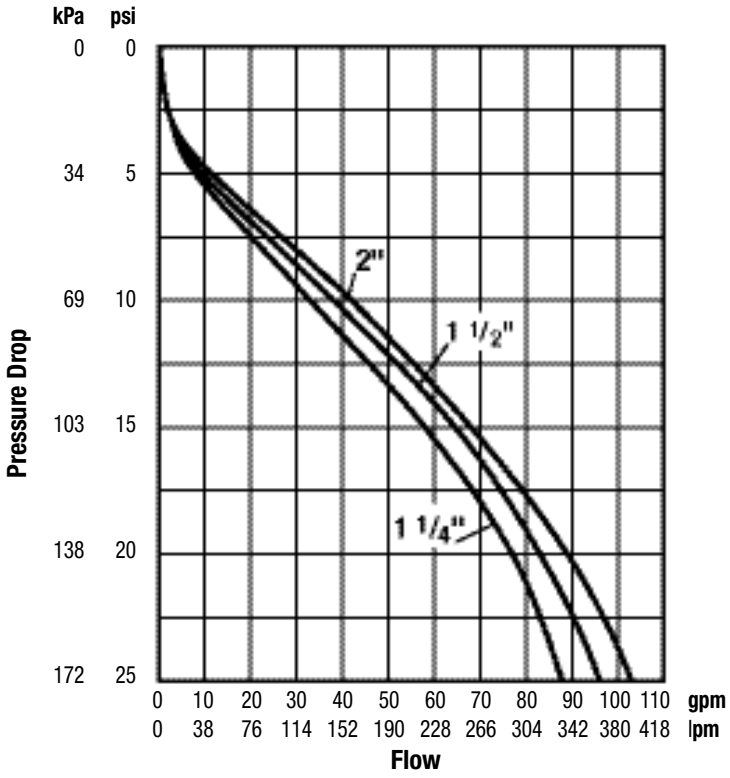
### Standards

Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; and listed by IAPMO. City of Los Angeles.

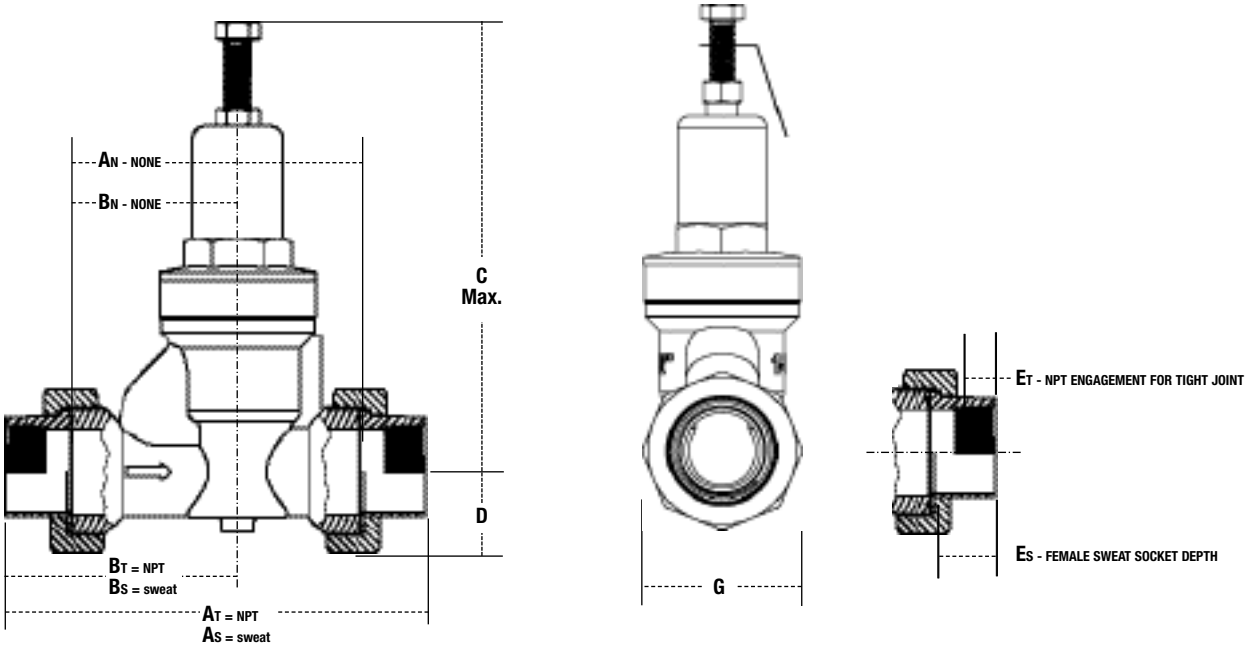
***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity




## Dimensions — Weights



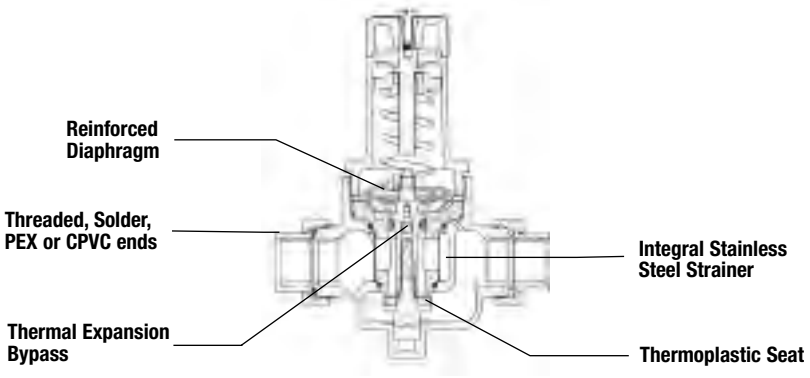

| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | | | | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $A_T$ | | $A_S$ | | $A_N$ | | $B_T$ | | $B_S$ | | $B_N$ | | C | | D | | $E_T$ | | $E_S$ | | G | | |
| *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in* | *mm* | *in* | *mm* | *in.* | *mm* | *lbs.* | *kgs.* |
| 1¼ | 32 | 8⅜ | 213 | 7 15⁄16 | 201 | 5 13⁄16 | 148 | 4⅜ | 111 | 4⅛ | 105 | 3 1⁄16 | 78 | 8⅞ | 225 | 1 7⁄16 | 36 | 1 1⁄16 | 17 | 1 | 25 | 3¼ | 82 | 6.5 | 2.9 |
| 1½ | 40 | 8⅜ | 213 | 8 3⁄16 | 207 | 5 13⁄16 | 148 | 4 9⁄16 | 115 | 4 7⁄16 | 112 | 3¼ | 83 | 8⅞ | 225 | 1⅝ | 41 | 1 1⁄16 | 17 | 1⅛ | 28 | 3¼ | 82 | 8 | 3.6 |
| 2 | 50 | 9 | 228 | 9¼ | 235 | 6⅜ | 162 | 5 | 126 | 5 1⁄16 | 129 | 3 11⁄16 | 93 | 8⅞ | 225 | 1⅞ | 47 | 1 1⁄16 | 17 | 1⅜ | 34 | 3 11⁄16 | 93 | 9 | 4.1 |

# Series N45B-EZ-M1

## Water Pressure Reducing Valves

### Sizes: ½" – 1" (15 – 25mm)

**Series N45B-EZ-M1 Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. This series is suitable for water supply pressures up to 400psi (27.6 bar) and may be adjusted from 25 – 75psi (172 – 517kPa). The standard setting is 50psi (345kPa). All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Factory calibrated outlet pressure adjustment
- Easily adjustable pressure setting
- Double union inlet & outlet connections (option DU)
- Integral stainless steel strainer
- Thermoplastic cage & seat
- Bronze body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure*

## Models

| | |
|---|---|
| N45B-EZ-M1 | NPT threaded female inlet x NPT female outlet |
| N45BU-EZ-M1 | NPT threaded union inlet x NPT female outlet |
| N45BU-EZ-S-M1 | Solder union inlet x NPT female outlet |
| N45BDU-EZ-M1 | Double Union – NPT threaded union female inlet and outlet |
| N45BDU-EZ-S-M1 | Double Union – Solder union inlet and outlet |
| N45BDU-EZ-PEX-M1 | Double Union – PEX union inlet and outlet |
| N45BDU-EZ-CPVC-M1 | Double Union – CPVC union inlet and outlet |

## Options

**add Suffix:**

G Gauge tapping
GG Gauge tapping and 160psi (11 bar) gauge

## Pressure – Temperature

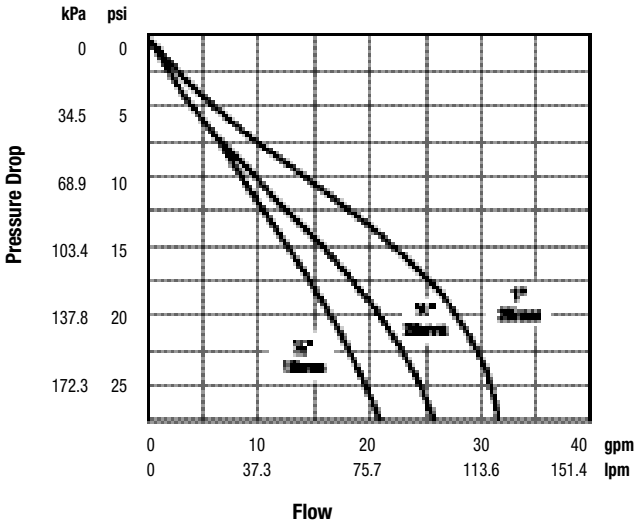
Temperature Range: 33°F – 180°F (0.5°C – 82°C)
Maximum Working Pressure: 400psi (27.6 bar)
Adjustable Reduced Pressure Range: 25-75psi (172 - 517kPa)
Standard Reduced Pressure Setting: 50psi (345kPa)

## Standards

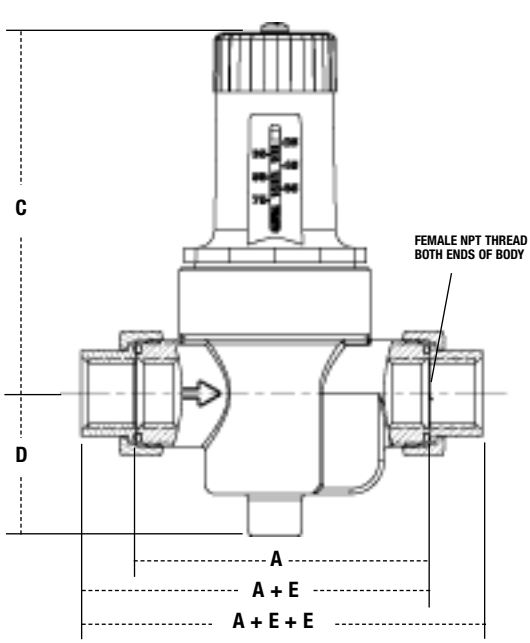
Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; and listed by IAPMO.

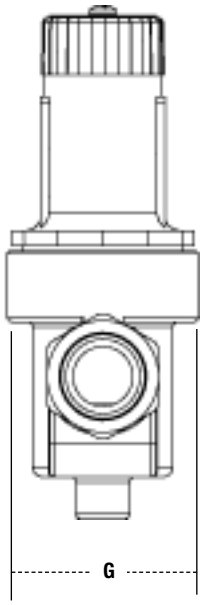
**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

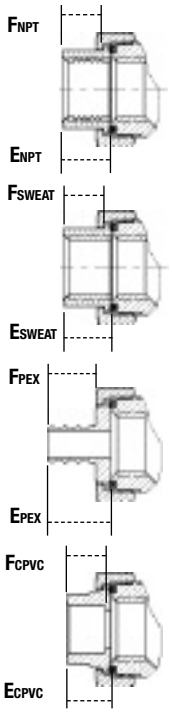
## Capacity




## Dimensions — Weights




ABOVE VALVE SHOWN WITH SINGLE NPT UNION CONNECTION ON INLET

VALVES MAY BE ORDERED WITH 0,1,OR 2 UNION CONNECTIONS USING ANY COMBINATION OF NPT, SOLDER, PEX OR CPVC CONNECTIONS REQUIRED

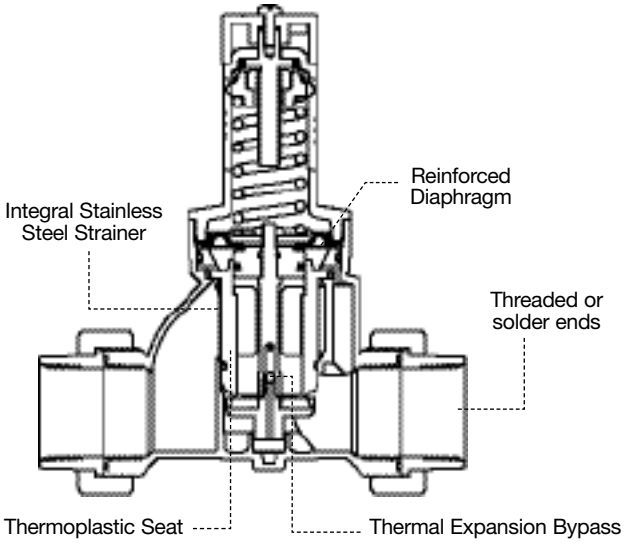
"F" DIMENSIONS ARE APPROXIMATE ENGAGEMENT LENGTHS.

| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | | | | | | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | C | | D | | ENPT | | ESWEAT | | EPEX | | ECPVC | | FNPT | | FSWEAT | | FPEX | | FCPVC | | G | | | |
| *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *lbs.* | *kgs.* |
| ½ | 15 | 3 7/16 | 88 | 4 3/8 | 111 | 1 11/16 | 43 | 5/8 | 16 | 5/8 | 15 | 13/16 | 21 | 9/16 | 15 | ½ | 13 | ½ | 13 | 5/8 | 16 | ½ | 13 | 2 1/4 | 57 | 1.75 | .79 |
| ¾ | 20 | 3 7/16 | 88 | 4 3/8 | 111 | 1 11/16 | 43 | 5/8 | 16 | 7/8 | 21 | 15/16 | 24 | 13/16 | 21 | 9/16 | 14 | ¾ | 19 | 5/8 | 16 | ¾ | 18 | 2 1/4 | 57 | 1.75 | .79 |
| 1 | 25 | 4 1/8 | 105 | 4 3/8 | 111 | 1 11/16 | 43 | ¾ | 20 | 1 | 26 | 1 1/8 | 29 | 1 1/16 | 26 | 11/16 | 17 | 15/16 | 23 | 13/16 | 21 | 15/16 | 23 | 2 1/4 | 57 | 2 | .91 |

# Series N45B-EZ
## Water Pressure Reducing Valves

### Sizes: 1¼" – 2" (32 – 50mm)

**Series N45B-EZ Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. This series is suitable for water supply pressures up to 300psi (21 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Factory calibrated outlet pressure adjustment
- Easily adjustable pressure setting
- Double union inlet & outlet connections
- Integral stainless steel strainer
- Bronze body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure*

## Models

| | |
|---|---|
| N45B-EZ | NPT threaded female inlet x NPT female outlet |
| N45BDU-EZ | Double Union - NPT threaded union female inlet and outlet |
| N45BDU-EZ-S | Double Union - Solder union inlet and outlet |

## Options

**add Suffix:**

G gauge tapping
GG gauge tapping and 160psi (11 bar) gauge

## Pressure – Temperature

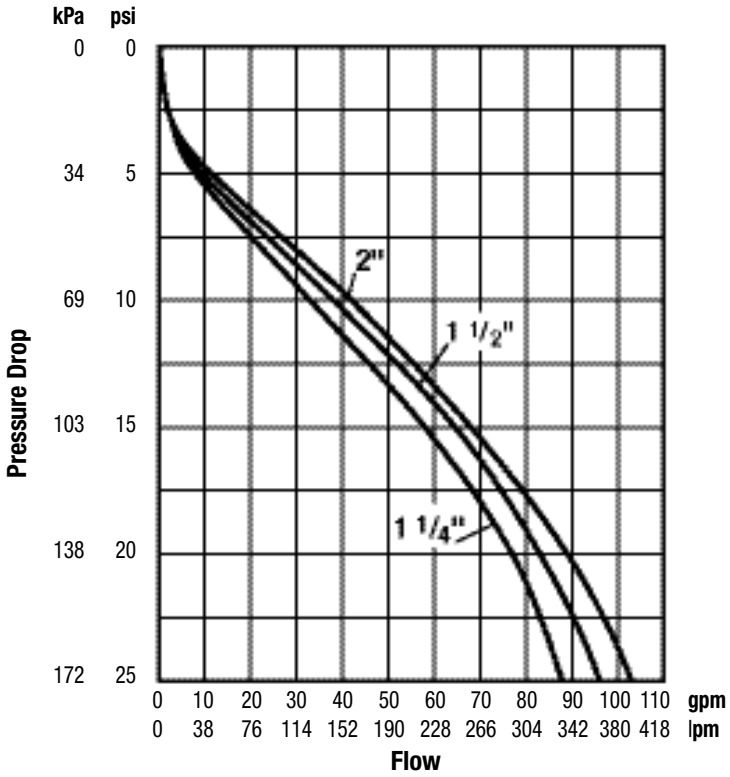
Temperature Range: 33°F – 180°F (0.5°C – 82°C)
Maximum Working Pressure: 300psi (21 bar)
Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kPa)
Standard Reduced Pressure Setting: 50psi (345 kPa)

## Standards

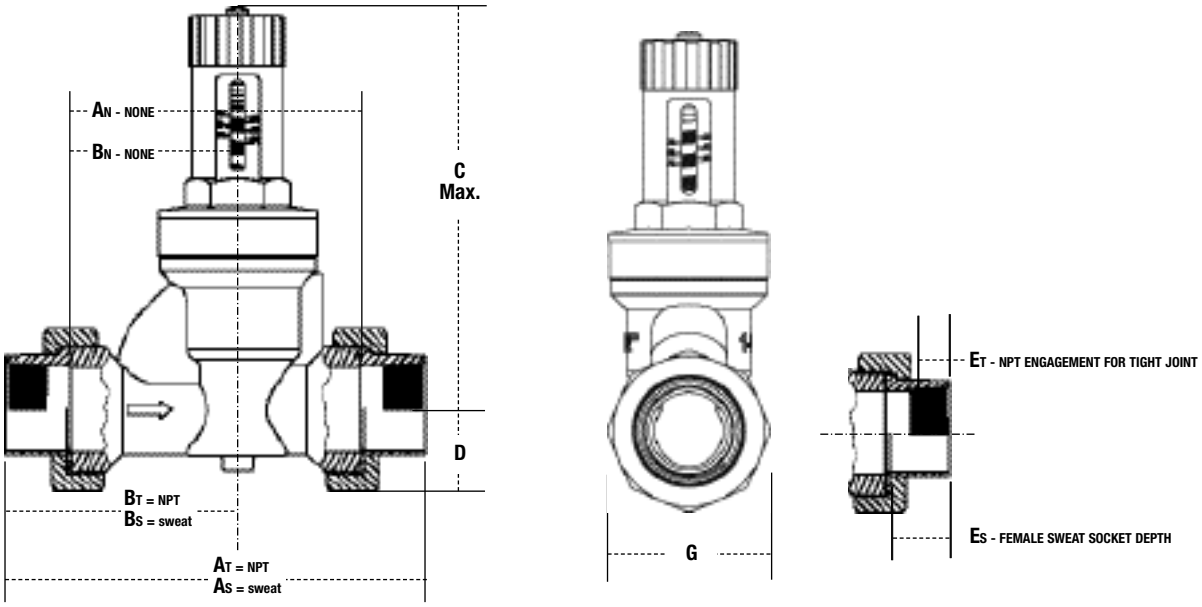
Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; and listed by IAPMO.

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity



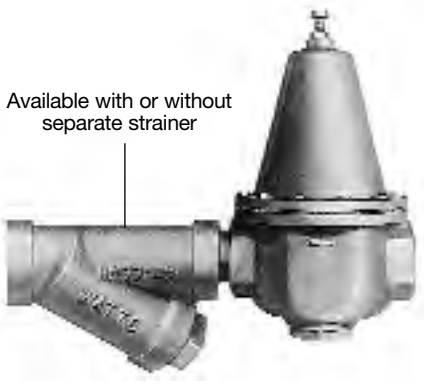

## Dimensions — Weights




| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | | | | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $A_T$ | | $A_S$ | | $A_N$ | | $B_T$ | | $B_S$ | | $B_N$ | | C | | D | | $E_T$ | | $E_S$ | | G | | |
| *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *lbs.* | *kgs.* |
| 1¼ | 32 | 8⅜ | 213 | 7 15/16 | 201 | 5 13/16 | 148 | 4⅜ | 111 | 4⅛ | 105 | 3 1/16 | 78 | 8 | 204 | 1 7/16 | 36 | 11/16 | 17 | 1 | 25 | 3¼ | 82 | 6.5 | 2.9 |
| 1½ | 40 | 8⅜ | 213 | 8 3/16 | 207 | 5 13/16 | 148 | 4 9/16 | 115 | 4 7/16 | 112 | 3¼ | 83 | 8 | 204 | 1⅝ | 41 | 11/16 | 17 | 1⅛ | 28 | 3¼ | 82 | 8 | 3.6 |
| 2 | 50 | 9 | 228 | 9¼ | 235 | 6⅜ | 162 | 5 | 126 | 5 1/16 | 129 | 3 11/16 | 93 | 8 | 204 | 1⅞ | 47 | 11/16 | 17 | 1 3/8 | 34 | 3 11/16 | 93 | 9 | 4.1 |

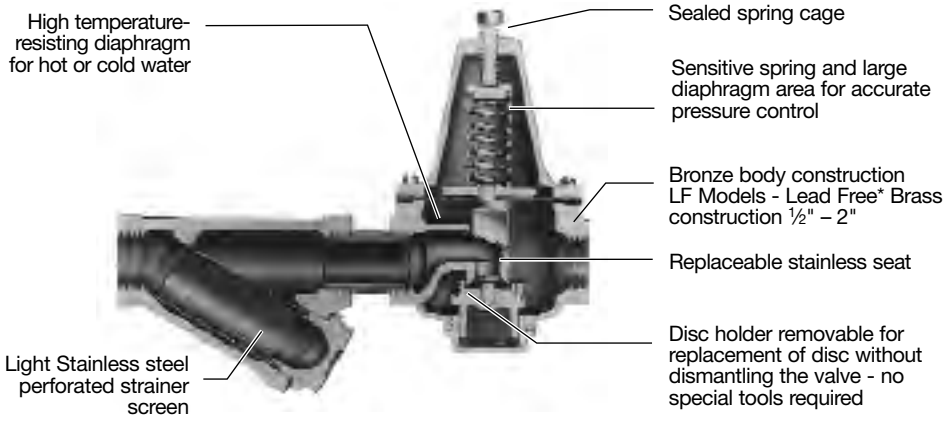
# Series 223, 223S and LF223, LF223S

## Super Capacity Water Pressure Reducing Valves




### Sizes: ½" – 2½" (15 – 65mm)

**Series 223, 223S and LF223, LF223S Super Capacity Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. The LF223/LF223S features Lead Free* construction to comply with Lead Free* installation requirements. This series is suitable for water supply pressures up to 300psi (21 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). Series 223 features an enlarged diaphragm, spring cage and seat orifice for super capacity performance. Series 223S/LF223S has the same options as the 223/LF223 except it is furnished with a strainer. All parts are quickly and easily serviceable without removing the valve from the line. The optional bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Enlarged diaphragm, spring cage and seat orifice for super capacity performance
- Bronze body construction (except 2½" which is iron)
- Lead Free* models with Lead Free* brass body construction (except 2½" which is iron)
- Serviceable in line
- Series 223SLF223S furnished with separate strainer
- Optional bypass feature controls thermal expansion pressure*
- Sealed spring cage on all models for accessible outdoors or pit installations

## Options

**add Suffix:**

B Built-in bypass feature
LP Low pressure range 10 – 35psi (5.27 – 8.79 bar)
HP High pressure range, reduced range shown below:

**REDUCED PRESSURE RANGE - SUFFIX HP**

| Size | | Range | |
|---|---|---|---|
| *in.* | *mm* | *psi* | *bar* |
| ½ | 15 | 50-145 | 3.52-10.19 |
| ¾ | 20 | 50-145 | 3.52-10.19 |
| 1 | 25 | 50-145 | 3.52-10.19 |
| 1¼ | 32 | 50-120 | 3.52-8.44 |
| 1½ | 40 | 50-95 | 3.52-6.68 |
| 2 | 50 | 50-95 | 3.52-6.68 |
| 2½ | 65 | 50-95 | 3.52-6.68 |

**add Prefix:**

LF Lead Free* construction

## Pressure – Temperature

Temperature Range: 33°F – 160°F (0.5°C – 71°C)
Maximum Working Pressure: 300psi (21 bar)
Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kPa)
Standard Reduced Pressure Setting: 50psi (345 kPa)

## Standards

½" – 2" (15 – 50mm) meets requirements of ASSE Standard 1003; (ANSI A112.26); CSA Standard B356; Southern Standard Plumbing Code, Military Standard MIL-V-18146B and listed by IAPMO.

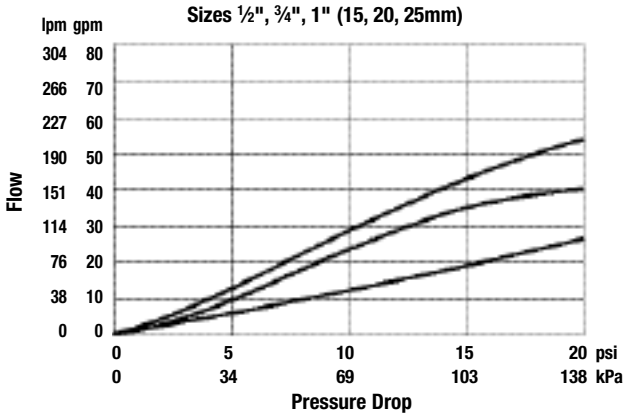
## Models

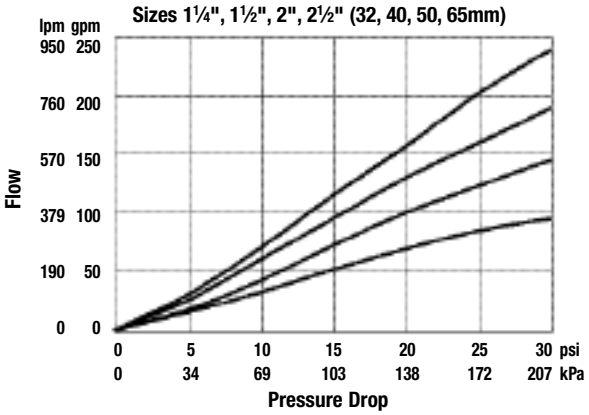
| | |
|---|---|
| 223<br>LF223 | NPT threaded female inlet x NPT threaded female outlet |
| 223-S<br>LF223-S | NPT threaded female inlet x NPT female threaded outlet with strainer |

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

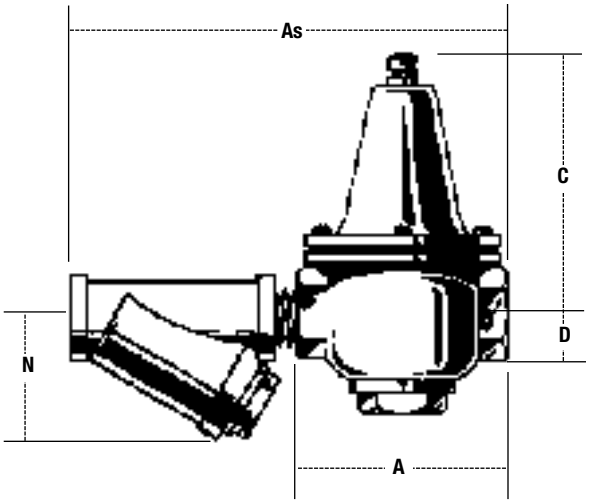
**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity




## Dimensions — Weights



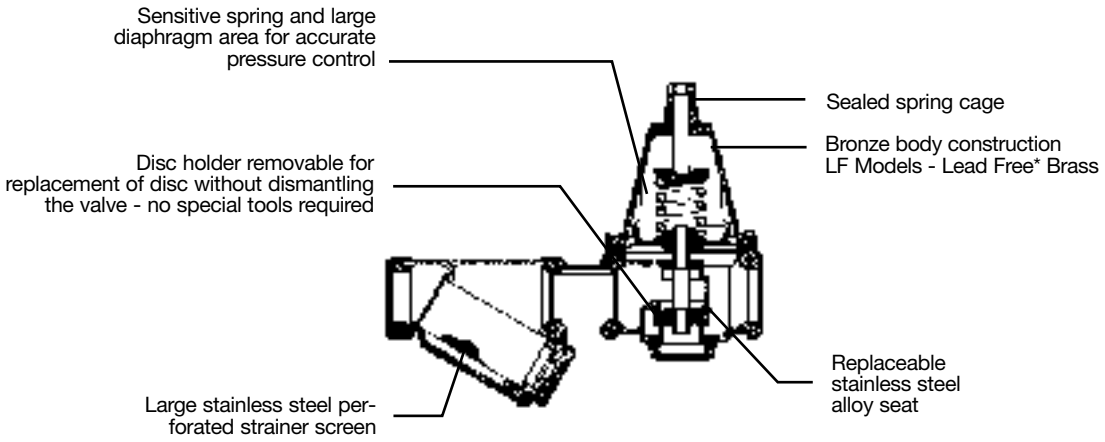

| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | WEIGHT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A (223) | | As (223S) | | C | | D | | N (223S) | | 223 | | 223S | |
| *in* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *in* | *mm* | *lbs.* | *kgs.* | *lbs.* | *kgs.* |
| ½ | 15 | 4¼ | 108 | 9 | 229 | 6¼ | 159 | 2 | 50 | 2½ | 64 | 4.5 | 2.0 | 6 | 2.7 |
| ¾ | 20 | 4¼ | 108 | 9 | 229 | 6¼ | 159 | 2 | 50 | 2½ | 64 | 5 | 2.3 | 6.5 | 2.9 |
| 1 | 25 | 4¾ | 121 | 10 15/16 | 262 | 6½ | 165 | 2⅛ | 54 | 2 15/16 | 75 | 7 | 3.2 | 9.5 | 4.3 |
| 1¼ | 32 | 5 | 127 | 11 15/16 | 287 | 6¾ | 172 | 2¾ | 70 | 3 | 76 | 9 | 4.1 | 12 | 5.4 |
| 1½ | 40 | 6¾ | 171 | 14¾ | 375 | 9⅞ | 251 | 2¾ | 70 | 3 7/16 | 87 | 19.5 | 8.8 | 23.5 | 10.7 |
| 2 | 50 | 8 | 203 | 16¾ | 425 | 10¾ | 273 | 3⅜ | 86 | 4 | 102 | 30 | 13.6 | 37.5 | 17.0 |
| 2½ | 65 | 9 | 229 | 20⅛ | 511 | 10¾ | 273 | 3⅜ | 86 | 5 | 127 | 32.5 | 14.8 | 59 | 26.8 |

# Series N223B, N223BS and LFN223B, LFN223BS

## Super Capacity Water Pressure Reducing Valves

### Sizes: 2½" – 3" (65 – 80mm)

**Series N223B, N223BS and LFN223B, LFN223BS Super Capacity Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. The LFN223B/LFN223BS features Lead Free* construction to comply with the Lead Free* installation requirements. This series is suitable for water supply pressures up to 300psi (21 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). Series N223B features an enlarged diaphragm, spring cage and seat orifice for super capacity performance. Series N223BS/LFN223BS has the same options as the N223B/LFN223BS, except it is furnished with a strainer. All parts are quickly and easily serviceable without removing the valve from the line. The standard bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




## Features

- Enlarged diaphragm, spring cage and seat orifice for super capacity performance
- Bronze body construction
- Lead Free* models with Lead Free* brass body construction
- Serviceable in line
- Series N223BSNLFN223BS furnished with separate strainer
- Standard bypass feature controls thermal expansion pressure*
- Sealed spring cage on all models for accessible outdoors or pit installations

## Models

| | |
|---|---|
| N223B<br>LFN223B | NPT threaded female inlet x NPT threaded female outlet |
| N223BS<br>LFN223BS | NPT threaded female inlet x NPT threaded female outlet with strainer |

## Options

**add Suffix:**

HP High pressure range 75 – 125psi (172 – 517 kPa)

## Pressure – Temperature

Temperature Range: 33°F – 160°F (0.5°C – 71°C)
Maximum Working Pressure: 300psi (21 bar)
Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kPa)
Standard Reduced Pressure Setting: 50psi (345 kPa)

## Standards

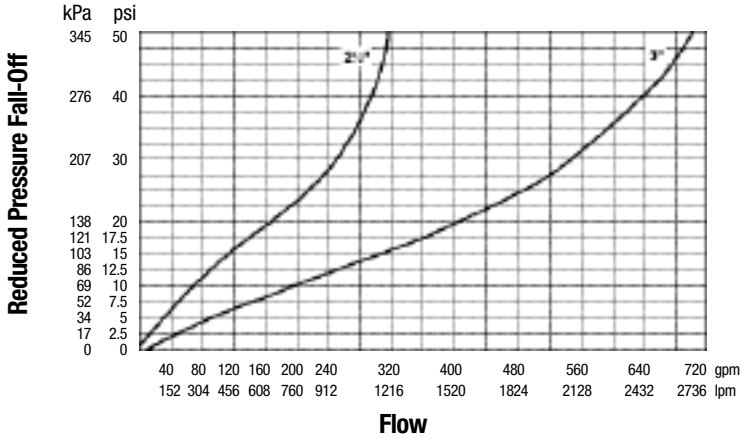
2½" only

2½" meets requirements of ASSE Standard 1003; (ANSI A112.26) and all sizes are IAPMO listed.

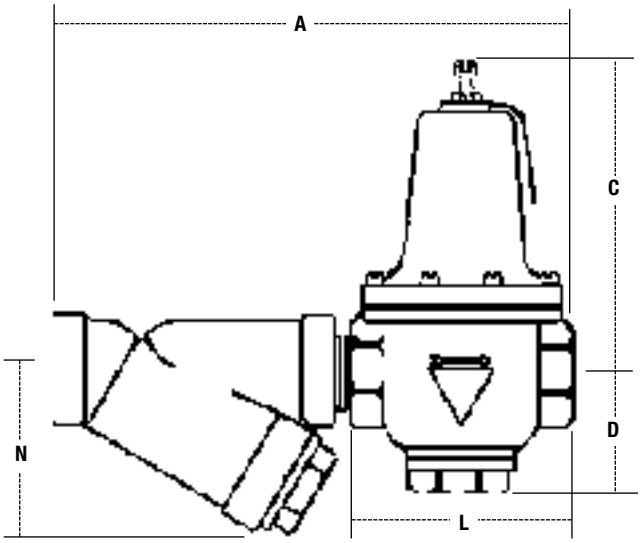
***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity




## Dimensions — Weights



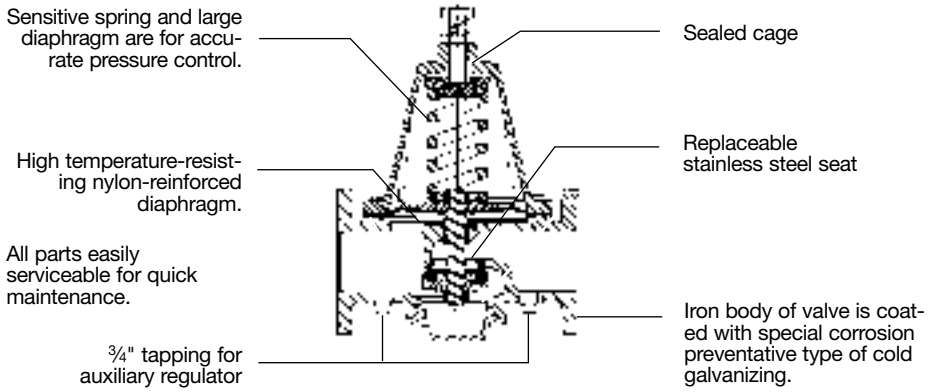

| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | WEIGHT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A (N223BS) | | C | | D | | L | | N (N223BS) | | N223B | | N223BS | |
| *In.* | *mm* | *In.* | *mm* | *In.* | *mm* | *In.* | *mm* | *In.* | *mm* | *In.* | *mm* | *lbs.* | *kgs.* | *lbs.* | *kgs.* |
| 2½ | 65 | 17 | 432 | 10¾ | 273 | 2⅞ | 73 | 7⅞ | 200 | 5 | 127 | 30 | 13.6 | 44 | 20.0 |
| 3 | 80 | 20¾ | 527 | 12¾ | 324 | 4⅛ | 105 | 10½ | 267 | 6¾ | 172 | 71 | 32.2 | 95 | 43.0 |

# Series N223F, N223FS

## Flanged Super Capacity Water Pressure Reducing Valves

### Size: 3" (80mm)

**Series N223F and N223FS Flanged Super Capacity Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. This series is suitable for water supply pressures up to 175psi (12 bar) and may be adjusted from 25 – 75psi (172 – 517 kPa). The standard setting is 50psi (345 kPa). Series N223F features an enlarged diaphragm, spring cage and seat orifice for super capacity performance. These valves also contain a semi-balanced piston feature to assure rapid response to reduced pressure changes as well as to provide maximum flow with minor pressure drop. Series N223FS has the same options as the N223F, except it is furnished with a strainer. All parts are quickly and easily serviceable without removing the valve from the line. The optional bypass feature permits the flow of water back through the valve into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main.**




**Note:** Companion flange size connections are 125 lbs. WSP.

## Features

- Enlarged diaphragm, spring cage and seat orifice for super capacity performance
- Iron body construction
- Stainless steel piston
- Series N223FS furnished with separate strainer
- Optional bypass feature controls thermal expansion pressure*
- Sealed spring cage on all models for accessible outdoors or pit installations

## Models

| | |
|---|---|
| N223F | Flanged inlet x Flanged outlet |
| N223S | Flanged inlet x Flanged outlet with strainer |

## Pressure – Temperature

Temperature Range: 33°F – 160°F (0.5°C – 71°C)
Maximum Working Pressure: 175psi (12 bar)
Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517 kPa)
Standard Reduced Pressure Setting: 50psi (345 kPa)

## Options

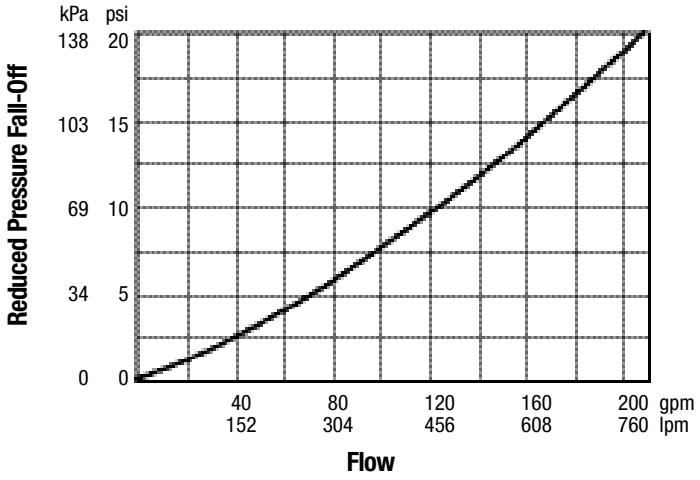
**add Suffix:**

| | |
|---|---|
| B | Built-in bypass feature |
| WR | ¾" (20mm) Model 223 auxiliary regulator (piping not included) |

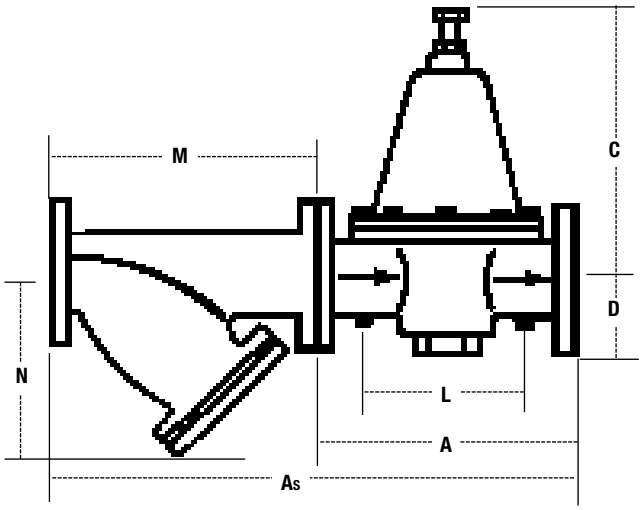
***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity




## Dimensions — Weights




| SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | | | STRAINER DIMENSIONS | | | | WEIGHT | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | | As (N223FS) | | C | | D | | L | | M | | N | | N223F | | N223FS | |
| *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *lbs.* | *kgs.* | *lbs.* | *kgs.* |
| 3 | 80 | 12½ | 318 | 22⅝ | 575 | 14½ | 368 | 3¾ | 95 | 7½ | 191 | 10⅛ | 257 | 7 | 178 | 86 | 39 | 120 | 54 |

# Series 127W, F127W and LF127W

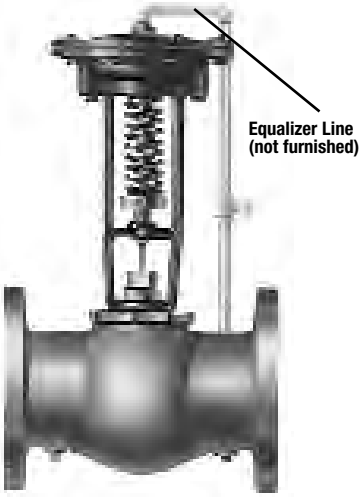
## Flanged High Capacity Water Pressure Reducing Valves

### Sizes: 3" – 4" (80 – 100mm)

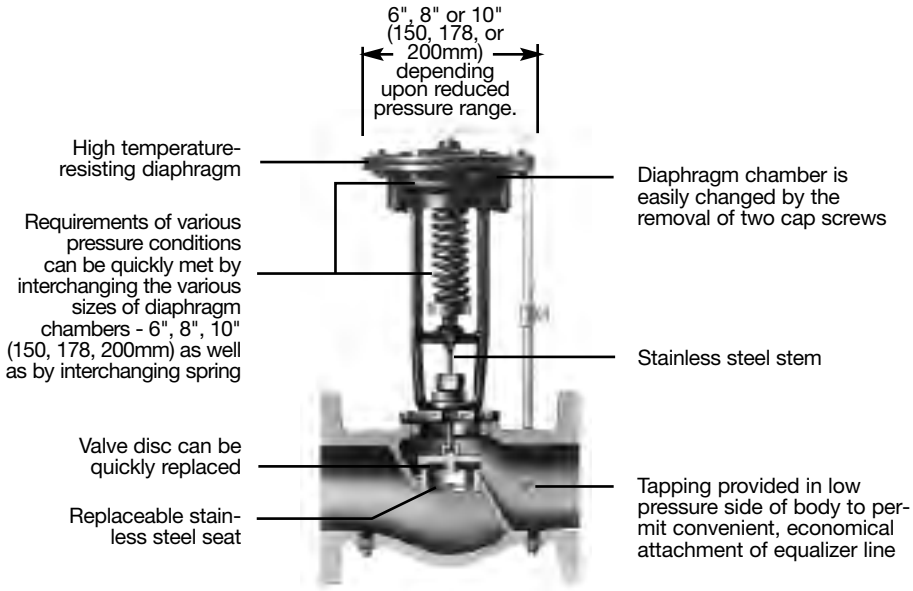
**Series 127W, F127W and LF127W Flanged High Capacity Water Pressure Reducing Valves are designed to reduce incoming water pressure to a sensible level to protect plumbing system components and reduce water consumption. The 127W, F127W and LF127W is a remote control type regulator ideal for commercial and industrial applications where a regulator must reach full capacity with a minor drop in reduced pressure. This series is also suitable for applications where close pressure regulation is required through extensive volume demand. This series is suitable for water supply pressures up to 175psi (12.1 bar) and may be adjusted from 25 – 100psi (172 – 690 kPa). All parts are quickly and easily serviceable.**

**The LF127W features Lead Free* construction to comply with Lead Free* installation requirements.**

**3" (80mm) 127W with Threaded Ends**




**4" (100mm) F127W with Flanged Ends**




### Features

- Replaceable stainless steel seat
- Outstanding maintenance features
- Close control of reduced pressure
- High temperature-resisting diaphragm
- Interchangeable diaphragm chamber
- 127W – Bronze body
- Lead Free* models with Lead Free* brass body construction
- F127W Iron body triple coated with special corrosion preventative materials superior to hot dip galvanizing

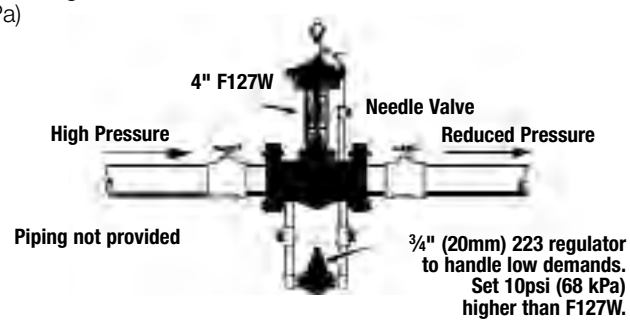
### Pressure – Temperature

Temperature Range: 33°F – 160°F (0.5°C – 71°C)
Maximum Working Pressure: 175psi (12.1 bar)
Adjustable Reduced Pressure Range: 25 – 100psi (172 – 690 kPa)

### Options (4" F127W only)

**add Suffix:**

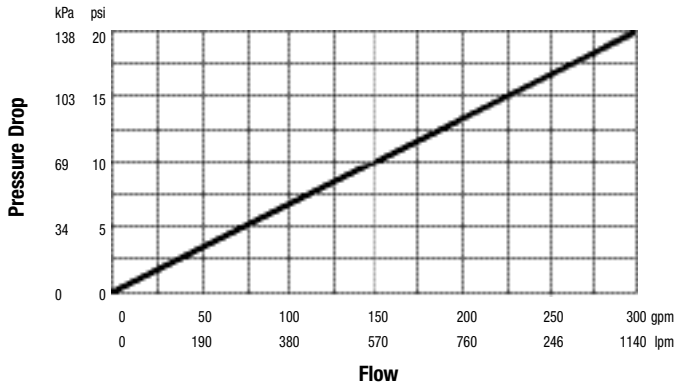
WR ¾" (20mm) Model 223 auxiliary regulator. (Piping not included)



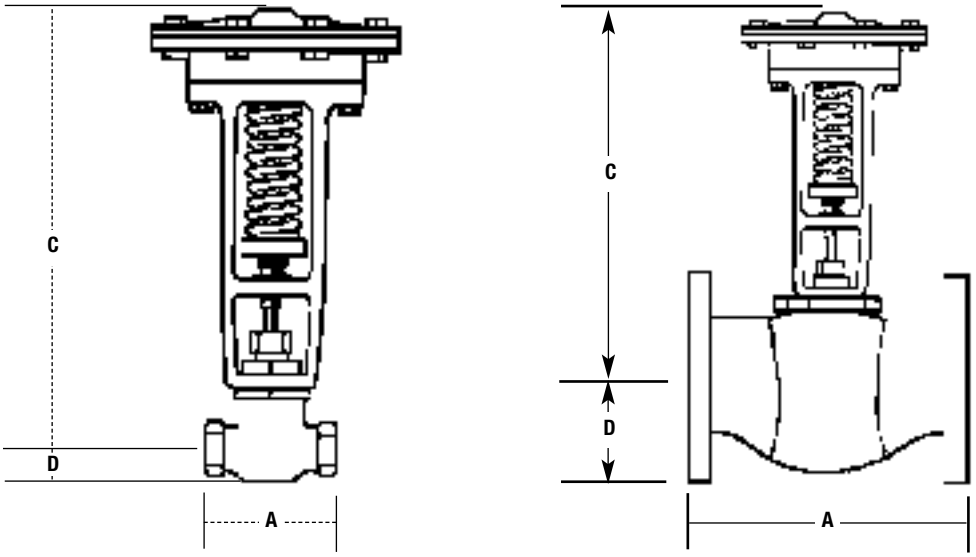

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

## Capacity




## Dimensions — Weights




| MODEL | SIZE (DN) | | CONNECTION | DIMENSIONS (APPROX.) | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | A | | C | | D | | | |
| | *in.* | *mm* | | *in.* | *mm* | *in.* | *mm* | *in.* | *mm* | *lbs.* | *kgs.* |
| 127W | 3" | 80 | threaded | 8 | 203 | 16⅛ | 410 | 2⅜ | 60 | 40 | 18 |
| F127W | 4" | 100 | flanged | 12⅛ | 308 | 16¾ | 425 | 4½ | 114 | 84 | 38 |
| F127W | 3" | 80 | flanged | 8 | 203 | 16¾ | 425 | 3¾ | 95 | 42 | 19 |

# Series 2300

## Direct Operated Water Pressure Reducing Valves

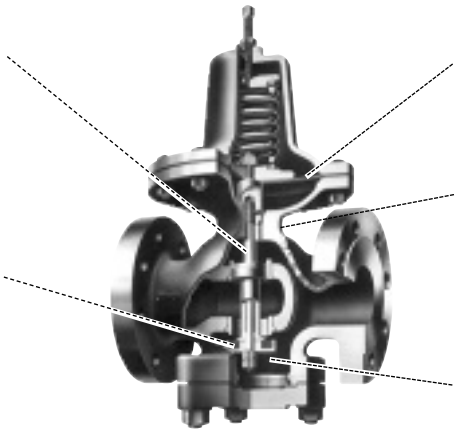
### Sizes: 3" – 6" (80 – 150mm)

**Series 2300 Direct Operated Water Pressure Reducing Valves are designed for dead-end water service where the flow is intermittent and changes rapidly, as on domestic water system. This Series is also installed to regulate the flow of water to such fast acting equipment as flushometers and snap cocks. The Series 2300 is recommended where city water pressure is to be reduced to supply plumbing fixtures to prevent violent pressure fluctuations.**

**Series 2300**

The design of this valve minimizes any danger of dirt lodging in the stem guide

Essentially balanced single seat minimizes a variation in delivery pressure resulting from a varying inlet pressure



A large Hycar diaphragm ensures a sensitive response to the slightest change in reduced pressure

This design being self-contained, no control lines are required

Designed to close against the flow. Will not chatter or produce water hammer. Operates smoothly and quietly

No stem guide in bottom flange to collect dirt. These valves are self-aligning and the guiding of the disc is independent of the bolted bottom flange.

## Features

- An essentially balanced single seat minimizes variation in delivery pressure resulting from varying inlet pressure
- A large Hycar diaphragm ensures a sensitive response to the slightest changes in reduced pressure
- Packless design eliminates stuffing box friction
- Hycar composition single seat provides for dead-end shutoff and prevents pressure-creep when no flow is required
- Self-aligning design. Eliminates the need for a stem guide in the bottom flanges and remove a point of direct collection that can cause faulty operation
- Disc and piston are located to minimize the possibility of obstruction by dirt
- Large pressure plate gives ample support to the diaphragm – assuring long life
- No stuffing boxes to stick
- Self contained design, requires no control lines
- All internal parts accessible by removing blind flange or spring chamber. Regular maintenance can be performed with the valve body in line
- No stuffing box maintenance required

## Pressure – Temperature

Maximum Temperature: 150°F (66°C)
Maximum Pressure: 200psi (14 bar)
Reduced Pressure Range: 30 – 80psi (207 – 552 kPa)



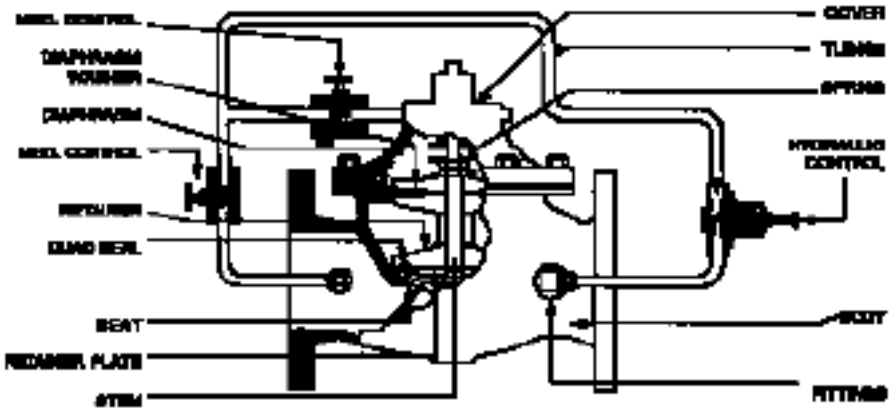
For additional information, request literature ES-2300.

# Series 115 (Globe), 1115 (Angle)

## Water Pressure Reducing Automatic Control Valves

### Sizes: 1¼" – 24" (32-600mm)

**Series 115 (Globe) and 1115 (Angle) Water Pressure Reducing Automatic Control Valves automatically reduce a higher inlet pressure to a constant lower outlet pressure regardless of changing flow rates and or varying inlet pressure.**



## Features

- Wide range of sizes available 1¼" – 24" (32 – 600mm))
- Fused epoxy coating 100% inside and out (FDA and NSF approved, meets AWWA standards)
- Exclusive "Quad Seal" provides positive drip-tight closure and longer valve lifespan
- Diaphragm actuated (one-moving part)
- Hydraulically operated (frictionless)
- Top and bottom guided stem
- Packless construction (less-maintenance)

## Models

115 (Globe)/1115 (Angle) – Pressure Reducing
115-2 (Globe)/1115-2 (Angle) – Pressure Reducing/Sustaining
115-3 (Globe)/1115-3 (Angle) – Pressure Reducing/Check
115-4 (Globe)/1115-4 (Angle) – Pressure Reducing/Solenoid On-Off
115-7 (Globe)/1115-7 (Angle) – Pressure Reducing/Surge
115-74 (Globe)/1115-74 (Angle) – Pressure Reducing/Low Flow Bypass Valve

## Standard Components

**3" (80mm) and Smaller**

- Flo-Clean pilot circuit strainer
- Adjustable opening speed control
- Fixed orifice supply restriction
- 20 – 175psi downstream adjustment range

**4" and Larger**

- Y-pattern pilot circuit strainer
- Pilot circuit isolation ball valves
- Fixed orifice supply restriction
- 20 – 175psi downstream adjustment range

## Optional Components

Adjustable opening speed control
4" (100mm) and larger
Pilot circuit isolation ball valves
3" (80mm) and smaller
Y-Pattern pilot circuit strainer
3" (80mm) and smaller
Adjustable closing speed control (all sizes)
Position indicator (all sizes)
Inlet and outlet pressure gauges (all sizes)

## Pressure-Temperature

Adjustable Reduced Pressure Range:
20-175psi (1.3 – 12 bar)
Optional Reduced Pressure Settings:
0-30psi (0 – 2 bar),
100-300psi (6.8 – 20 bar)

# Series N250, N250B

## Iron Body Water Pressure Reducing Valves with Integral Strainer

### Sizes: ½" – ¾" (15 – 20mm)

**Series N250 and N250B iron body water pressure reducing valves are ideal for standard capacity domestic water pressure regulation service. These valves feature a special unitized construction which consists of the seat, disc and stem assembly plus strainer screen altogether in one unit for complete replacement maintenance.**

### Features

- Stainless steel seat
- Stainless steel integral strainer
- High temperature resisting diaphragm for hot or cold water
- Special unitized construction
- All working parts easily and quickly serviceable without removing valve from the line
- Optional bypass feature controls thermal expansion pressure

**Note: Cast iron body regulators are not intended for buried or pit services.**

**Note:** The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressures above 150psi.

### Models

**N250 –** NPT threaded female inlet and outlet connections

**N250B –** NPT threaded female inlet and outlet connections with thermal expansion bypass feature

For additional information, request literature ES-N250.

# Series 26A, 263A and LF26A, LF263A

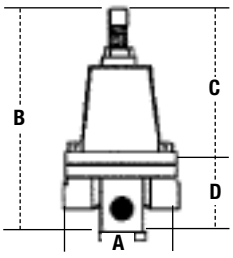
## Small Water Pressure Reducing Valves

### Sizes: ⅛" – ½" (3 – 15mm)

**Series 26A, 263A, LF26A, and LF263A small water pressure reducing valves are ideal for water and No. 2 fuel oil. The LF26A, LF263A features Lead Free* construction to comply with Lead Free* construction to comply with Lead Free* installation requirements. Applications include: beverage dispensers, ice cube machines, paint sprayers, humidifiers, etc. For other liquids contact your local Watts agent.**

### Features

- Rugged forged brass body
- Lead Free* models with Lead Free* brass body construction
- Tee handle adjustment
- Oversized orifice




### Dimensions – Weights

| MODEL | SIZE (DN) | | DIMENSIONS (APPROX.) | | | | | | | | WEIGHT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | A | | B | | C | | D | | | |
| | in. | mm | in. | mm | in. | mm | in. | mm | in. | mm | oz. | gm. |
| 26A/LF26A | ⅛ | 3 | 2⅛ | 54 | 3⅞ | 98 | 3 | 76 | ⅞ | 22 | 16 | 454 |
| 26A/LF26A | ¼ | 8 | 2⅛ | 54 | 3⅞ | 98 | 3 | 76 | ⅞ | 22 | 16 | 454 |
| 26A/LF26A | ⅜ | 10 | 2⅛ | 54 | 3⅞ | 98 | 3 | 76 | ⅞ | 22 | 16 | 454 |
| 26A/LF26A | ½ | 15 | 2⅛ | 54 | 4 | 100 | 3⅛ | 79 | ⅞ | 22 | 16 | 454 |
| 263A/LF263A | ¼ | 8 | 2⅛ | 54 | 4⅞ | 124 | 4 | 100 | ⅞ | 22 | 16 | 454 |
| 263A/LF263A | ⅜ | 10 | 2⅛ | 54 | 4⅞ | 124 | 4 | 100 | ⅞ | 22 | 16 | 454 |
| 263A/LF263A | ½ | 15 | 2⅛ | 54 | 4 | 100 | 3⅛ | 79 | ⅞ | 22 | 16 | 454 |

For additional information, request literature ES-26A/263A or ES-LF26A/263A.

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

# Series SS263AP*

## Stainless Steel Water Pressure Reducing Valves

### Sizes: ½" (15mm)

**Series SS263AP stainless steel water pressure reducing valves are ideal for use with deionized water, chemical solutions, high purity, water purification systems and low pressure steam (15psi/103 kPa) applications.**

### Features

- Rugged investment cast body and cage
- Stainless steel adjusting screw
- Oversized orifice
- Viton® Trim

***This product complies with federal standards for lead content but contains greater than 0.25% lead, which exceeds limitations mandated by some states when used in drinking water systems.**

# Series P60-M5*

## Plastic Miniature Water Pressure Reducing Valves

### Sizes: ¼" (8mm)

**Series P60-M5 plastic miniature water pressure reducing valves are ideal for applications where a small economical package is required. These valves are suitable for use with deionized water. The Series P60-M5 features a balanced piston design for applications where a constant downstream and accurate flow performance is required.**

### Features

- Corrosion Resistant
- Compact design and lightweight construction
- All external components are made of an NSF approved grade acetal plastic
- All internal rubber components such as disc, diaphragm and seals are all FDA grade Buna-N
- Certified by NSF to NSF standard 61
- All internal metal components in contact with fluids are of Series 300 stainless steel
- Straight through or 90° inlet to outlet option
- High capacity
- Bottom clean out plug for service

For additional information, request literature ES-P60.

***This product complies with federal standards for lead content but contains greater than 0.25% lead, which exceeds limitations mandated by some states when used in drinking water systems.**

For additional information, request literature ES-SS263AP.

# Series 560, H560

## Water Pressure Reducing Valves

### Sizes: ⅛" – ¾" (3 – 20mm)

**Series 560 and H560 water pressure reducing valves are ideal where a small economical package is required. The 560/H560 series is used on special industrial process applications, miscellaneous plumbing applications and OEM equipment.**

### Features

- Rugged brass body, stainless steel stem and spring
- Oversized orifices, Buna-N seat and diaphragm
- Furnished standard with ⅛" (3mm) gauge port (plugged)
- Heavy duty adjusting screw. Adjusting screw is both slotted and knurled

For additional information, request literature ES-560/H560.

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**

# Series 123LP

## Water Pressure Reducing Valves

### Sizes: ½" – ¾" (15 – 20mm)

**Series 123LP water pressure reducing valves feature high performance and flow capacity. These valves contains an integral stainless steel seat and strainer as well as bronze body construction. The Series 123LP is serviceable in-line as well.**

### Features

- High performance
- High flow capacity
- Integral stainless steel valve seat
- Integral stainless steel strainer
- Bronze body construction
- Serviceable in-line

# Series 215

## Super Sensitive Low Pressure Water Pressure Regulators

### Sizes: ¼" – ⅜" (8 – 10mm)

**Series 215 super sensitive low pressure water pressure regulators are especially designed to meet low pressure precision requirements. The high ratio of diaphragm to orifice provides excellent performance and stability at low reduced pressure. The Series 215's brass body and stainless steel internal parts make it ideally suited for water requirements up to 2.5gpm (9.5lpm). These valves are also suitable for pressure supply to wall attachment fluidic devices.**

### Features

- Rugged forged brass body for water service
- Replaceable stainless steel seat
- Large diaphragm provides exceptional performance particularly under 10psi (.70 bar)
- 30 mesh stainless steel strainer

For additional information, request literature ES-215.

***The wetted surface of this product contacted by consumable water contains less than one quarter of one percent (0.25%) of lead by weight.**



For additional information, request literature ES-123LP.

# Model 276H300, IWTG

## Water Pressure Test Gauges

**Model 276H300, IWTG water pressure test gauges are ideal to accurately determine system pressure in a building. The ¼" hose connection easily attaches to a hose bibb or the drain connection on a water heater. A red indicator hand holds at the highest reading registered. When left on overnight, it will register the highest pressure in the system during that period.**

### Models

| | |
|---|---|
| **276H300** | 0 – 300psi (0 – 20.7 bar) |
| **IWTG** | 0 – 200psi (0 – 13.8 bar) |

# Series DPG3, DPG5

## Water Pressure Gauges

**DPG3**

**DPG5**

**Series DPG3, DPG5 Water Pressure Gauges fit all Watts valves with gauge option.**

### Features

- ABS polymer case
- Kostil polymer window
- ASME Type “B” accuracy
- Copper alloy bourdon tube sensing element
- Tin alloy welding
- Working Temperature: -4°F – 176°F (-20°C – 80°C)

### Models

| | |
|---|---|
| **DPG3** | Center back entry pressure gauges |
| **DPG5** | Top entry pressure gauges |

### Dimensions

| MODEL | SCALE | | CONNECTION SIZE (DN) | | DIAL SIZE | |
|---|---|---|---|---|---|---|
| | | | *in.* | *mm* | *in.* | *mm* |
| DPG3-1½ | 0 – 60psi | 413 kPa | ⅛ | 3 | 1½ | 38 |
| DPG3-1½ | 0 – 160psi | 11 bar | ⅛ | 3 | 1½ | 38 |
| DPG5-2 | 0 – 160psi | 11 kPa | ⅛ | 3 | 2 | 50 |

# Jumper Kits

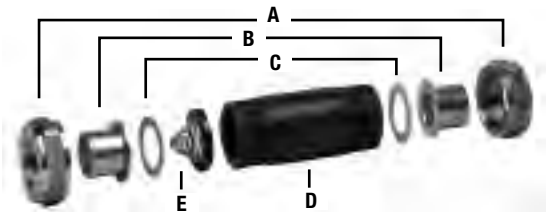
## Temporary Bypass for Water Pressure Reducing Valves

Jumper kits are used in new construction as a temporary by-pass, prior to the actual installation of a water pressure reducing valve on potable water supply systems.

The use of a temporary jumper permits testing of the building piping system for leaks and pressure loss and facilitates pipe flushing prior to the installation of the water pressure reducing valve. On unsecured job sites, the jumper kit reduces loss from theft or vandalism.

They come complete with union connections, washers, and a brass or plastic pipe nipple with male union threads. The length of the jumper nipple matches the valve lay length, allowing the piping to be completed prior to the installation of a water pressure reducing valve and permitting quick change out from the jumper to the valve.

The jumper kits include a stainless steel strainer screen to provide protection from debris downstream of the valve.




### Jumper Kit Exploded View

Kit Consists of:

**A –** Union Nut (2)
**B –** Sweat Tailpiece (2)
**C –** Fiber Washer (2)
**D –** Jumper Nipple
**E –** Screen

### How to order jumper kits

Example: ¾" JK P-345 S

**¾" JK P-345 S**

**Size:**
½", ¾", 1", 1¼", 1½", 2"

**Jumper Kit Designation:**

**Nipple Type:**
B = Brass P = Plastic

**Fits Valve Model:**
25 = 25AUB 345 = N45, N55 (½"–1") 55 = N45, N55 (1¼"–2")

**Connection:**
M = Male brass solder S = Female copper solder

| JUMPER KITS COMPLETE KITS WITH PLASTIC NIPPLE | |
|---|---|
| **Model** | **Size** |
| **Female x Female Copper Sweat Tailpiece** | |
| JK-P-25 S | ¾" |
| JK-P-345 S | ¾" |
| JK-P-25 S | 1" |
| JK-P-345 S | 1" |
| JK-P-25 S | 1¼" |
| JK-P-55 S | 1¼" |
| JK-P-25 S | 1½" |
| JK-P-55 S | 1½" |
| JK-P-25 S | 2" |
| JK-P-55 S | 2" |
| **Female Copper Sweat x Male Brass Sweat Tailpiece** | |
| JK-P-345-FM S | ¾" |
| JK-P-345-FM S | 1" |
| **Male x Male Brass Sweat Tailpiece** | |
| JK-P-345-MM S | 1" |
| **COMPLETE KITS WITH BRASS NIPPLE** | |
| **Female x Female Copper Sweat Tailpiece** | |
| JK-B-25 S | ¾" |
| JK-B-345 S | ¾" |
| JK-B-25 S | 1" |
| JK-B-345 S | 1" |
| JK-B-25 S | 1¼" |
| JK-B-55 S | 1¼" |
| JK-B-25 S | 1½" |
| JK-B-55 S | 1½" |
| JK-B-25 S | 2" |
| JK-B-55 S | 2" |

Jumper Kits Include: Jumper Nipple, strainer screen, 2 fiber washers, 2 union nuts and tailpieces as described above.

When removing Jumper Nipple and inserting the water pressure reducing valve, two O-rings (ordered separately) are required. Refer to literature PL-RP-GP for O-ring ordering information.



For additional information, request literature ES-JumperKits.

# For Technical Assistance Call Your Authorized Watts Representative.

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