

For Residential and Commercial Applications

Job Name _____
 Job Location _____
 Engineer _____
 Approval _____

Contractor _____
 Approval _____
 Contractor's P.O. No. _____
 Representative _____

Series U5B Water Pressure Reducing Valves*

Sizes: 1/2" – 2" (15 – 50mm)

Series U5B 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 (20.7 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'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 supply.

Features

- Standard construction includes Z3 sealed spring cage and stainless steel corrosion resistant adjusting cage screws for accessible outdoor or pit installations
- Integral stainless steel strainer
- Replaceable seat module
- Bronze body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure (U5B-Z3)**
- High temperature resistant reinforced diaphragm for hot water

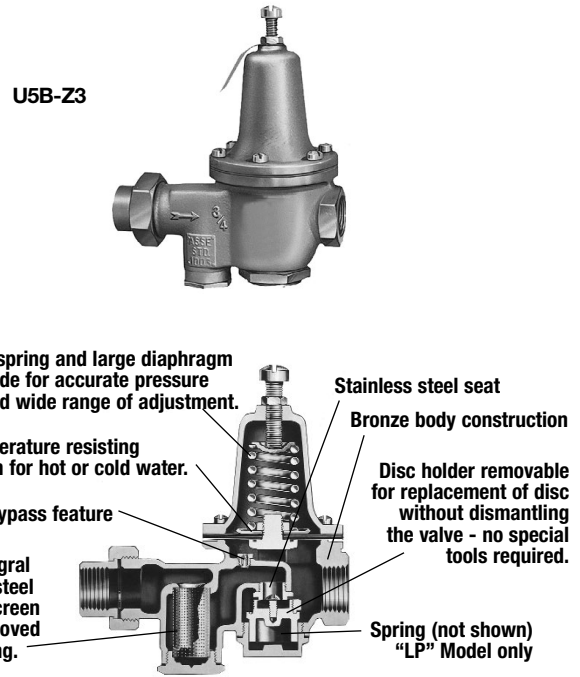
Models

- | | |
|-----------|--|
| U5B-Z3 | NPT threaded female union inlet x NPT female outlet w/built in thermal expansion bypass |
| U5B-S-Z3 | Solder union inlet x NPT female outlet w/built in thermal expansion bypass |
| 5M3-Z6 | Water meter threaded connections and 7 1/2" (190mm) lay length for new or existing meter box installations. For 5/8" (16mm), 3/8" x 3/4" (16 x 20mm) or 3/4" (20mm) meter setters or resetters |
| U5B-QC-Z3 | Quick-Connect Single-Union – Inlet end |

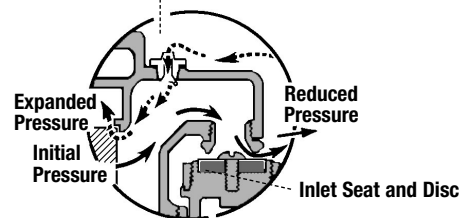
Specifications

Standard Specifications: A Water Pressure Reducing Valve with integral strainer shall be installed in the water service pipe near its entrance to the building where supply main pressure exceeds 60psi (413 kPa) to reduce it to 50psi (345 kPa) or lower. The valve shall feature a bronze body suitable for water supply pressures up to 300psi (20.7 bar). Provision shall be made to permit the bypass 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. Water Pressure Reducing Valve with built-in bypass check valves will be acceptable. Approved valve shall be listed to ASSE 1003 and IAPMO and certified to CSA B356. Valve shall be a Watts Regulator Company Series U5B-Z3.

- * A water saving test program concluded that reducing the supply pressure from 80-50psi (551-345 kPa) resulted in a water savings of 30%.
- ** Note: The bypass feature will not prevent the pressure relief valve from opening on the hot water supply system with pressure above 150psi (10.3 bar).



Suffix B
Thermal Expansion Bypass Check Valve Feature



Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



Materials

| | |
|--------------------|-----------------------------|
| Body: | Bronze |
| Seat: | Replaceable stainless steel |
| Integral Strainer: | Stainless steel |
| Diaphragm: | Reinforced EPDM |
| Valve Disc: | EPDM |

Note: for LP models where application temperatures exceed 160°F (71°C), but not over 180°F (82°C), a Teflon® protector should be added to sizes 1¼" – 2" (32 – 50mm).

5M3-Z6 model provided with cast iron spring cage

Pressure – Temperature

Temperature Range: 33°F – 160°F (0.5°C – 71°C)

Maximum Working Pressure: 300psi (20.7 bar)

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

Standard Reduced Pressure Setting: 50psi (345 kPa)

Options

Add Suffix

| | |
|----|---|
| G | Gauge tapping |
| GG | Gauge tapping and 160psi (11 bar) gauge |
| HP | High pressure range 75 – 100psi (5.2 – 6.9 bar) |
| LP | Low pressure range 10 – 35psi (69 – 241 kPa) |

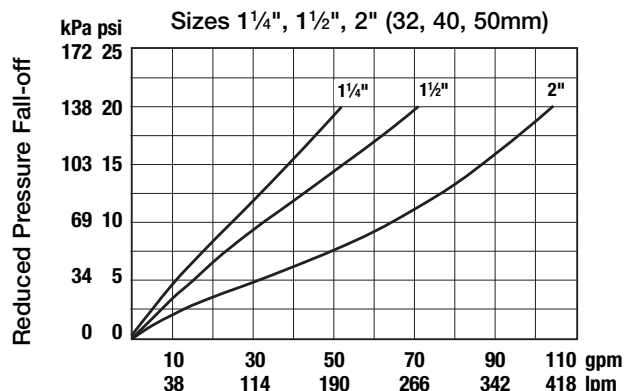
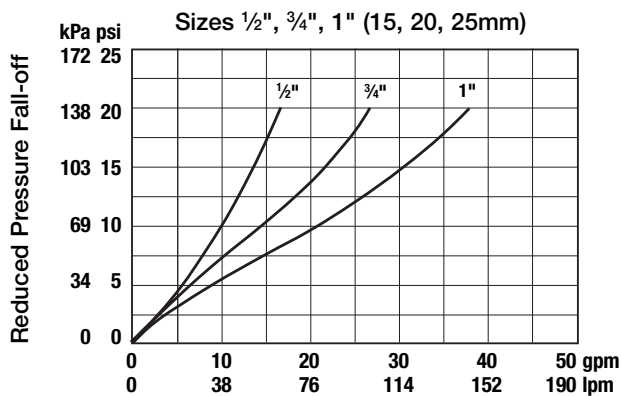
Standards



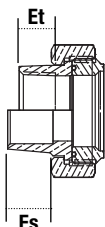
Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; Southern Standard Plumbing Code and listed by IAPMO.

Teflon® is a registered trademark of the E.I. Dupont de Nemours & Company.

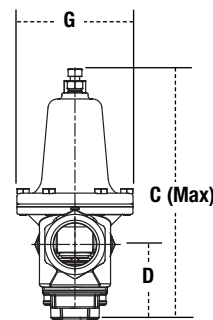
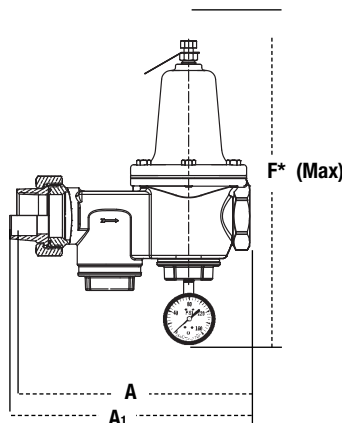
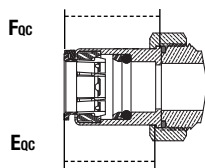
Capacity



Dimensions - Weights



- A - U5B-Z3
- A₁ - U5B-S-Z3
- Et - NPT Engagement for tight joint
- Es - Female sweat socket depth
- E_{oc} - Quick-Connect



| MODEL | SIZE (DN) | | DIMENSIONS | | | | | | | | | | WEIGHT | | | | | | | | | | | |
|--------|-----------|----|------------|----------------|-----|-------|-----|-------|----|-----------------|-----------------|-------|--------|------|----|------|----|----|----|----|-----|-------|------|------|
| | in. | mm | A | A ₁ | C | D | G | Et | Es | E _{oc} | F _{oc} | F* | lbs. | kgs. | | | | | | | | | | |
| U5B-Z3 | ½ | 15 | 5½ | 142.8 | 5½ | 139.7 | 5⅞ | 149.2 | 1⅝ | 41.2 | 3⅜ | 77.7 | ⅞ | 11.1 | ½ | 12.7 | 1⅞ | 36 | 1½ | 38 | 10¼ | 260.3 | 4 | 1.8 |
| | ¾ | 20 | 6⅜ | 157.1 | 6¼ | 158.7 | 6⅞ | 174.6 | 1⅞ | 47.6 | 3½ | 88.9 | ½ | 12.7 | ¾ | 19 | 1⅞ | 40 | 1⅞ | 42 | 11½ | 292.1 | 5 | 2.3 |
| | 1 | 25 | 6⅞ | 168.2 | 6¾ | 171.4 | 7⅞ | 187.3 | 2 | 50.8 | 4 | 101.6 | ⅞ | 14.2 | ⅞ | 22.2 | 1⅞ | 43 | 1¾ | 45 | 12⅞ | 307.9 | 6 | 2.7 |
| | 1¼ | 32 | 7⅞ | 190.5 | 7⅞ | 195.2 | 8⅞ | 212.7 | 2¼ | 57.1 | 4½ | 113.3 | ⅞ | 15.8 | 1 | 25.4 | — | — | — | — | 13⅞ | 339.7 | 9.4 | 4.3 |
| | 1½ | 40 | 9⅞ | 239.7 | 9¾ | 247.6 | 9⅞ | 238.1 | 2⅞ | 73 | 4¾ | 120.6 | ⅞ | 15.8 | 1⅞ | 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 | ⅞ | 15.8 | 1⅞ | 34.9 | — | — | — | — | 18¼ | 463.5 | 23 | 10.4 |

* Dimension includes optional gauge



A Watts Water Technologies Company



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