

For Residential and Commercial Applications

Job Name _____

Job Location _____

Engineer _____

Approval _____

Contractor _____

Approval _____

Contractor's P.O. No. _____

Representative _____

Series U5-Z3 Water Pressure Reducing Valves*

Sizes: 1/2" – 2" (15 – 50mm)

Series U5-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 – 517kPa). The standard setting is 50psi (345kPa). 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.

Features

- Standard construction includes Z3 sealed spring cage and corrosion resistant adjusting cage screws for outdoor/waterworks 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

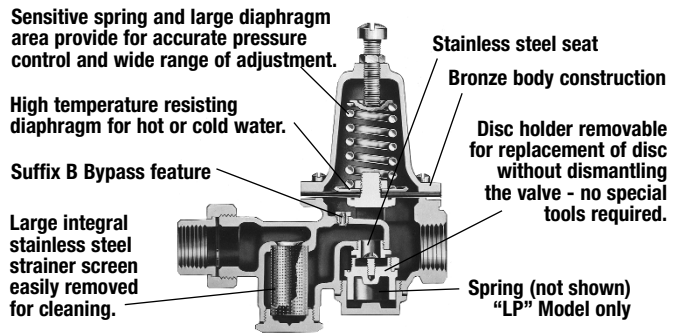
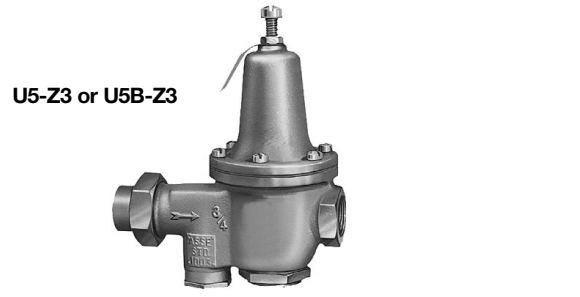
U5-Z3	NPT threaded female union inlet x NPT female outlet, 1/2" – 1" (15 – 25mm)
U5-S-Z3	Solder union inlet x NPT female outlet, 1/2" – 1" (15 – 25mm)
U5B-Z3	NPT threaded female union inlet x NPT female outlet w/built in thermal expansion bypass
U5B-S-Z3	Solder union inlet x NPT female outlet w/built 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), 5/8" x 3/4" (16 x 20mm) or 3/4" (20mm) meter setters or resetters
U5-Z9	3/4" (20mm) NPT threaded male union inlet and 3/4" (20mm) NPT threaded female outlet connection

Specifications

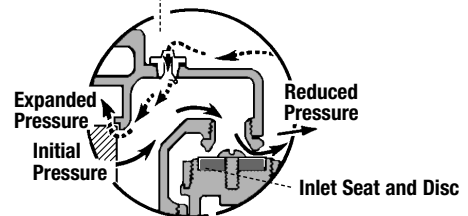
Standard Specifications: A Water Pressure Reducing Valve with integral strainer shall be installed in the water service pipe near its entrance to the building where supply main pressure exceeds 60psi (413 kPa) to reduce it to 50psi (345 kPa) or lower. The valve shall feature a bronze body suitable for water supply pressures up to 300psi (21 bar). Provision shall be made to permit the bypass flow of water around the valve back into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main. 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 (551-346kPa) resulted in a water savings of 30%.

** Bypass will not work if inlet pressure is above 150psi (10.34 bar).



Suffix B
Thermal Expansion Bypass Check Valve Feature



Lead Free 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 where suitable for water supply pressures up to 300psi (21 bar). The combined metal components of the valve contacted by potable water shall contain less than one half of one percent (0.5%) lead by weight. Provision shall be made to permit the bypass flow of water around the valve back into the main when pressures, due to thermal expansion on the outlet side of the valve, exceed the pressure in the main. 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 LF U5B-Z3.



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°F), a Teflon® protector should be added to sizes 1¼" – 2" (32 – 50mm).

Pressure – Temperature

Temperature Range: 33°F – 160°F (5°C – 71°C)
 Maximum Working Pressure: 300psi (21 bar)
 Adjustable Reduced Pressure Range: 25 – 75psi (172 – 517kPa)
 Standard Reduced Pressure Setting: 50psi (345kPa)

Options

Add Suffix

G	Gauge tapping
GG	Gauge tapping and 160psi (11 bar) gauge
HP	High pressure range 75 – 125psi (5.27 – 8.79 bar)
LP	Low pressure range 10 – 35psi (69 – 241 kPa)

Add Prefix

LF Lead Free† construction

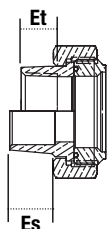
†The combined metal components of this product contacted by potable water contain less than one half of one percent (0.5%) of lead by weight.

Standards

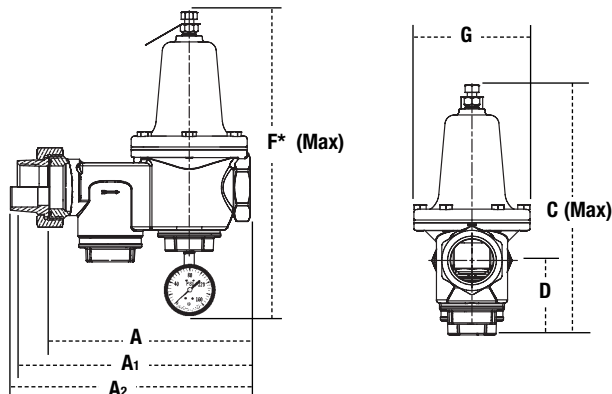


Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; Southern Standard Plumbing Code and listed by IAPMO.
 Teflon® is a registered trademark of E.I. DuPont de Nemours & Company.

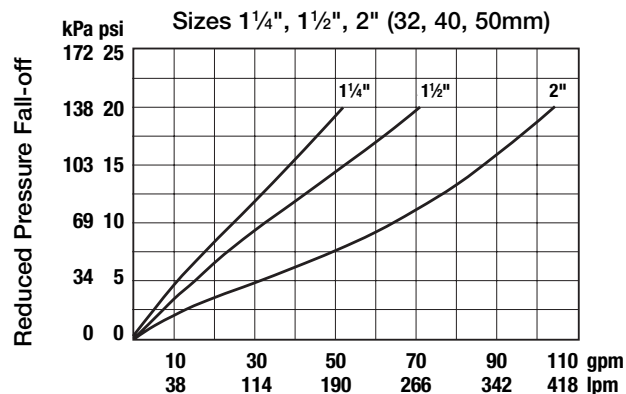
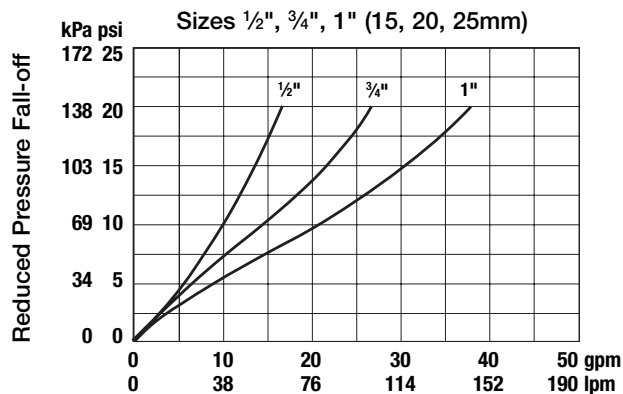
Dimensions - Weights



- A - U5-Z3
- A₁ - U5B-Z3
- A₂ - U5B-S-Z3
- Et - NPT Engagement for tight joint
- Es - Female sweat socket depth



Capacity



MODEL	SIZE (DN)		DIMENSIONS												WEIGHT							
	in.	mm	A		A ₁		A ₂		C		D		G		Et	Es	F*		lbs.	kgs.		
U5-Z3/ U5B-Z3	½	15	4 ¹⁵ / ₁₆	125.4	5 ⁵ / ₈	142.8	5 ¹ / ₂	139.7	5 ⁷ / ₈	149.2	1 ⁵ / ₈	41.2	3 ¹ / ₁₆	77.7	7 ⁷ / ₁₆	11.1	½	12.7	10 ¹ / ₄	260.3	4	1.8
	¾	20	5 ¹ / ₂	139.7	6 ³ / ₁₆	157.1	6 ¹ / ₄	158.7	6 ⁷ / ₈	174.6	1 ⁷ / ₈	47.6	3 ¹ / ₂	88.9	½	12.7	¾	19	11 ¹ / ₂	292.1	5	2.3
U5B-Z3	1	25	5 ¹³ / ₁₆	147.6	6 ⁵ / ₈	168.2	6 ³ / ₄	171.4	7 ³ / ₈	187.3	2	50.8	4	101.6	9 ⁹ / ₁₆	14.2	7 ⁷ / ₈	22.2	12 ¹ / ₈	307.9	6	2.7
	1¼	31.7	6 ¹¹ / ₁₆	169.8	7 ¹⁵ / ₁₆	190.5	7 ¹¹ / ₁₆	195.2	8 ³ / ₈	212.7	2 ¹ / ₄	57.1	4 ¹ / ₂	113.3	5 ⁵ / ₈	15.8	1	25.4	13 ³ / ₈	339.7	9.4	4.3
	1½	38.1	8 ¹ / ₈	206.3	9 ⁷ / ₁₆	239.7	9 ³ / ₄	247.6	9 ³ / ₈	238.1	2 ⁷ / ₈	73	4 ³ / ₄	120.6	5 ⁵ / ₈	15.8	1 ¹ / ₈	28.5	15	381.0	14.4	6.5
	2	50.8	9 ⁹ / ₁₆	242.8	10 ⁷ / ₈	276.2	11 ¹ / ₂	292.1	12 ¹ / ₄	311.1	3 ¹ / ₄	82.5	6	152.4	5 ⁵ / ₈	15.8	1 ³ / ₈	34.9	18 ¹ / ₄	463.5	23	10.4

* Dimension includes optional gauge



USA: 815 Chestnut St., No. Andover, MA 01845-6098; www.wattsreg.com
 Canada: 5435 North Service Rd., Burlington, ONT. L7L 5H7; www.wattscanada.ca