## **Engineering Specification**

Job Name	Contractor
Job Location	Approval
Engineer	Contractor's P.O. No.
Approval	Representative
TOPIOVAI	Tieprescritative

# **LEAD FREE**\*

## **Series LFU5B**

## Water Pressure Reducing Valves\*\*

Sizes: 1/2" - 2"

Series 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. The LFU5B features Lead Free\* construction to comply with Lead Free\* installation requirements. 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 LFU5B'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
- Lead Free\* cast copper silicon alloy body construction
- Serviceable in line
- Bypass feature controls thermal expansion pressure (LFU5B-Z3)\*\*\*
- High temperature resistant reinforced diaphragm for hot water

#### Models

**LFU5B-Z3** NPT threaded female union inlet x NPT female outlet

w/built in thermal expansion bypass

**LFU5B-S-Z3** Solder union inlet x NPT female outlet w/built in thermal

expansion bypass

**LF5M3-Z6** Water meter threaded connections and  $7\frac{1}{2}$ " (190mm)

lay length for new or existing meter box installations. For  $5\!\!$  " (16mm),  $5\!\!$  " x  $3\!\!$  " (16 x 20mm) or  $3\!\!$  4" (20mm)

meter setters or resetters

LFU5B-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 water pressure reducing valve shall be constructed using Lead Free\* materials. Lead Free\* regulators shall comply with state codes and standards, where applicable, requiring reduced lead content. The valve shall feature a Lead Free\* cast copper silicon alloy 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 Series LFU5B-Z3.



Sensitive spring and large diaphragm area provide for accurate pressure control and wide range of adjustment.

High temperature resisting diaphragm for hot or cold water.

Large integral stainless steel strainer screen easily removed for cleaning.

Suffix B Bypass feature

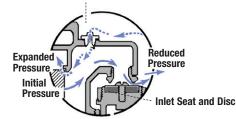
Stainless steel seat

Lead Free\* copper
silicon alloy body
construction

Disc holder removable for replacement of disc without dismantling the valve - no special tools required.

Spring (not shown) "LP" Model only

Suffix B
Thermal Expansion Bypass Check Valve Feature



- \*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.
- \*\*A water saving test program concluded that reducing the supply pressure from 80-50psi (551-345 kPa) resulted in a water savings of 30%.
- \*\*\*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).

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

#### NOTICE

Inquire with governing authorities for local installation requirements

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: Lead Free\* cast copper silicon alloy
Seat: Replaceable stainless steel

Integral Strainer: Stainless steel
Diaphragm: Reinforced EPDM

Valve Disc: EPDM

Yoke: Lead Free\* cast copper silicon alloy LF5M3-Z6 model provided with cast iron spring cage

#### Pressure - Temperature

Temperature Range: 33°F – 180°F (0.5°C – 82°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 (11.0 bar) gauge
HP High pressure range 75 – 100psi (5.2 – 6.9 bar)
LP Low pressure range 10 – 35psi (69 – 241 kPa)





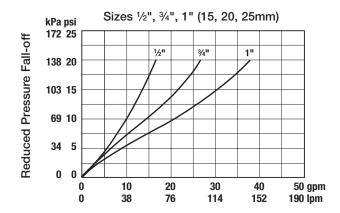


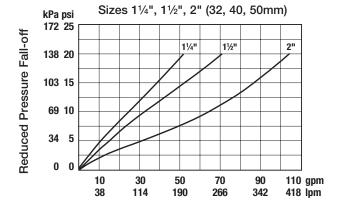


### **Standards**

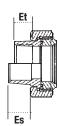
Meets requirements of ASSE Standard 1003; (ANSI A112.26.2); CSA Standard B356; Southern Standard Plumbing Code and listed by IAPMO.

## Capacity





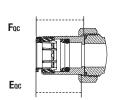
## **Dimensions - Weights**

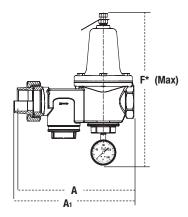


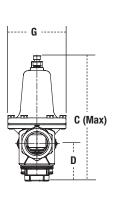
A - LFU5B-Z3 A<sub>1</sub> - LFU5B-S-Z3

E<sub>T</sub> - NPT Engagement for tight joint E<sub>S</sub> - Female sweat socket depth

Eqc - Quick-Connect







MODEL	SIZE	DIMENSIONS															WEI	GHT					
		Α		<b>A</b> 1		С		D		G		Et		Es		Eac		Fac		F <sup>†</sup>			
LFU5B-Z3	in.	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kgs
	1/2	5%	142.8	51/2	139.7	57/8	149.2	1%	41.2	31/16	77.7	7/16	11.1	1/2	12.7	17/16	36	11/2	38	101/4	260.3	4	1.8
	3/4	63/16	157.1	61/4	158.7	67//8	174.6	17/8	47.6	31/2	88.9	1/2	12.7	3/4	19	1%16	40	111/16	42	11½	292.1	5	2.3
	1	65%	168.2	63/4	171.4	7%	187.3	2	50.8	4	101.6	9/16	14.2	7/8	22.2	111/16	43	13/4	45	121//8	307.9	6	2.7
	11/4	715/16	190.5	711/16	195.2	8%	212.7	21/4	57.1	41/2	113.3	5/8	15.8	1	25.4	-	-	_		13%	339.7	9.4	4.3
	1½	97/16	239.7	93/4	247.6	9%	238.1	27//8	73	43/4	120.6	5/8	15.8	11//8	28.5			-	15	381.0	14.4	6.5	
	2	107/8	276.2	11½	292.1	121/4	311.1	31/4	82.5	6	152.4	5/8	15.8	1%	34.9	-	-	_		181/4	463.5	23	10.4

<sup>†</sup>Dimension includes optional gauge



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