

## For Residential and Commercial Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# LEAD FREE\*

## Series LFFBV-4, LFFBVS-4

### 2-Piece, Full Port, Brass Ball Valves

Sizes: ¼" – 3"

Series LFFBV-4, LFFBVS-4 2-Piece, Full Port, Brass Ball Valves are suitable for a full range of liquids and gases in residential and commercial applications.

These valves feature an adjustable packing for longer service life, a bottom loaded blow-out proof stem for safety, a fluorocarbon elastomer stem O-ring to prevent stem leaking at installation, and are rated to 600psi WOG/150psi WSP ¼"-2" and 400psi WOG/125psi WSP 2½"-3". The LFFBV-4, LFFBVS-4 features Lead Free\* construction to comply with Lead Free\* installation requirements.

### Features

- CSA approved threaded valves only ¼" – 3"
- Certified to NSF/ANSI Standard 61/8
- Metal-to-metal adapter body seal to eliminate adapter leaks after soldering
- Fluorocarbon elastomer stem O-ring prevents stem leaks
- Adjustable stem packing gland provides longer service life
- Bottom loaded blowout proof stem
- PTFE stem packing seal and seats
- Machined chrome-plated Lead Free brass ball
- Complies with MSS-SP-110

### Models

LFFBV-4 ¼" – 3" threaded end connections

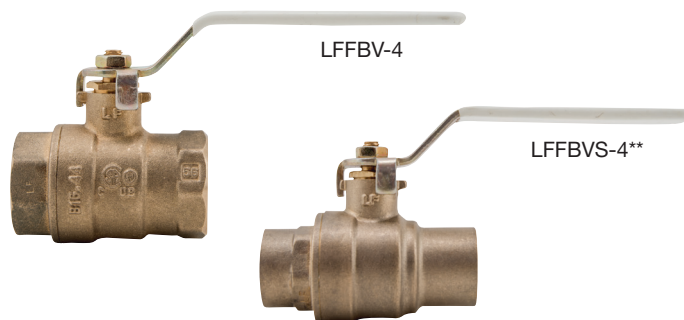
LFFBVS-4 ½" – 3" solder end connections\*\*

### Specifications

Approved valves shall be 2-piece full port design constructed of a forged Lead Free copper silicon cast alloy body and end adapter. Lead Free\* 2-Piece, Full Port, Brass Ball Valves shall be constructed using Lead Free\* materials. Lead Free\* valves shall comply with state codes and standards, where applicable, requiring reduced lead content. Seats and stem packing shall be PTFE. Stem to be bottom-loaded, blowout proof design with a fluorocarbon elastomer O-ring to prevent stem leakage.

Valves required to have an adjustable packing gland and chrome-plated brass ball. Threaded valves ½" – 3" shall be CSA approved to ½ psig and 5 psig and certified to NSF/ANSI Standard 61/8 by NSF. Solder valves also required to be certified by NSF to NSF/ANSI Standard 61/8. Valve sizes ¼" – 2" pressure rated to 600 psi WOG and 150 psi WSP. Valve sizes 2½" – 3" pressure rated to 400 psi WOG and 125 WSP. Valves specified are Watts Series LFFBV-4 or LFFBVS-4.

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.



### Approvals

¼" – 3" LFFBV-4

½" – 3" LFFBVS-4

Certified to NSF/ANSI Standard 61-G

Domestic cold water at 73°F



### Gas Approvals (Threaded Valves Only)

¼" – 3" CSA

½ psig, 5 psig

@ 0°F to 125°F



### Pressure — Temperature

Temperature Range: 0°F to 400°F (-18°C to 204°C)

Pressure Rating: ¼"-2"  
600psi (41.4 bar) WOG non-shock  
150psi (10.3 bar) WSP  
2½"-3"  
400psi (27.6 bar) WOG non-shock  
125psi (8.6 bar) WSP

### Installation Information

Apply heat with the flame directed **AWAY** from the center of the valve body. Excessive heat can harm the seats. After soldering, the packing nut may have to be tightened.

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

\*\*This valve is designed to be soft soldered into lines without disassembly, using a low temperature solder to 420°F (216°C). Higher temperature solders may damage the seat material.

### NOTICE

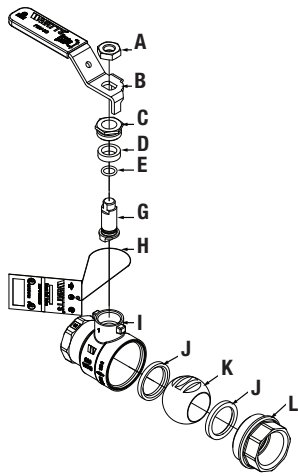
The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation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

### NOTICE

Inquire with governing authorities for local installation requirements

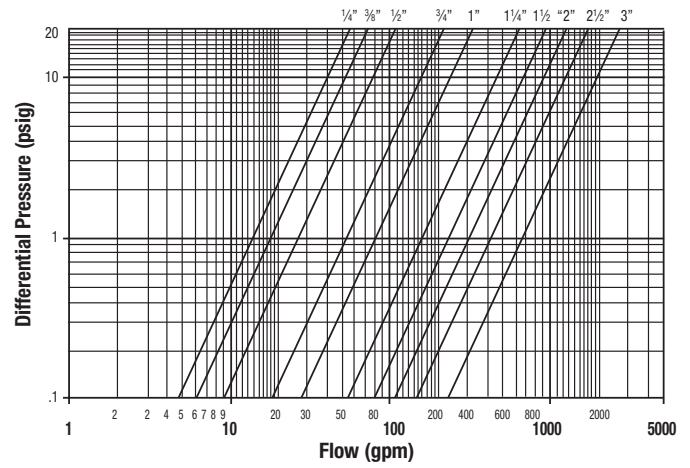


## Materials

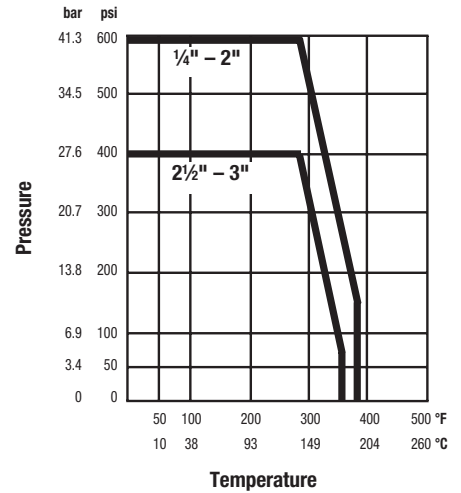


- A Handle Nut** Zinc plated carbon steel
- B Handle Assembly** Zinc plated carbon steel with vinyl insulator
- C Packing Nut** Brass
- D Stem Packing** Virgin PTFE
- E O-Ring** Fluorocarbon elastomer (FKM)
- G Stem** Machined Brass
- H Tag** Cardboard, Mylar coated both sides
- I Body** Forged Lead Free\* copper silicon alloy
- J Seats** Virgin PTFE
- K Ball** Chrome plated Lead Free\* brass
- L Adaptor** Forged Lead Free\* copper silicon alloy

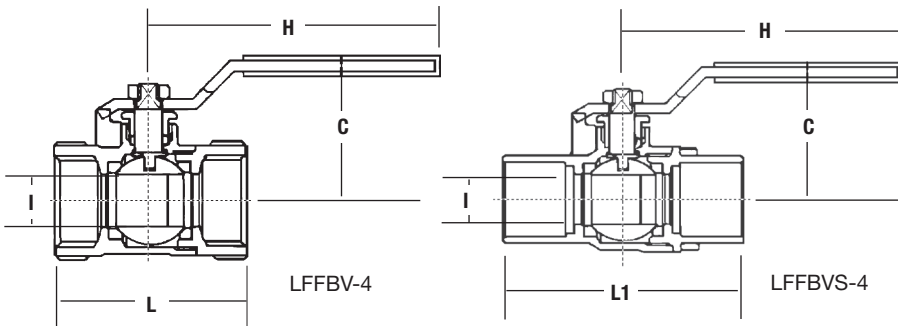
## Flow Curves



## Valve Seat Rating



## Dimensions-Weights



SIZE		DIMENSIONS										WEIGHT			
		C		H		I		L		L1		FBV-4		FBVS-4	
in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	lbs.	kg	lbs.	kg
1/4	1 13/16	46	3 7/16	87	7/16	11	1 3/4	45	—	—	0.4	0.16	—	—	
3/8	1 13/16	46	3 7/16	87	1/2	13	1 3/4	44.7	—	—	0.4	0.17	—	—	
1/2	1 13/16	46	3 7/16	87	1/2	13	2	50	2 1/16	53	0.4	0.18	0.4	0.16	
3/4	2 1/16	53	3 15/16	101	1 1/16	18	2 1/4	57	2 9/16	67	0.6	0.27	0.5	0.24	
1	2 7/16	62	4 1/4	108	1 5/16	24	2 13/16	71	3 1/16	83	1.1	0.49	1.0	0.44	
1 1/4	2 1/2	64	4 1/4	108	1 3/16	31	3 3/8	80	3 11/16	93	1.5	0.68	1.4	0.64	
1 1/2	3	76	5 5/16	135	1 7/16	37	3 3/16	88	4 3/16	107	2.3	1.06	2.1	0.95	
2	3 1/2	89	6	153	2	51	4 1/8	105	5 9/16	135	3.7	1.69	3.8	1.74	
2 1/2	4 1/16	104	7 3/8	188	2 1/2	64	5 5/16	134	6 3/16	158	7.9	3.57	7.2	3.27	
3	4 1/2	114	7 3/4	197	3	76	6 1/8	155	7 1/4	184	11.8	5.37	11.0	4.99	

