

**For Residential, Commercial and Industrial Applications**

Job Name \_\_\_\_\_  
 Job Location \_\_\_\_\_  
 Engineer \_\_\_\_\_  
 Approval \_\_\_\_\_

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

**LEAD FREE\***

**Series LFBRVM1  
 Combination Ball Valve  
 and Relief Valve**

**Sizes: 3/4" (20mm)**

Series LFBRVM1, Combination Ball Valve and Relief Valve is an easy to install two-in-one device. Designed to be used as water heater shutoff valves to provide both a means to shut off the water supply to the water heater and to provide protection against excess water pressure caused by thermal expansion. The Series LFBRVM1 features Lead Free\* construction to comply with Lead Free\* installation requirements.

These valves use a Lead Free\* body full port valve design\*\* which includes PTFE seats and a blow out proof stem design. The relief valve section includes a Viton® disc and stainless steel spring.

**Features**

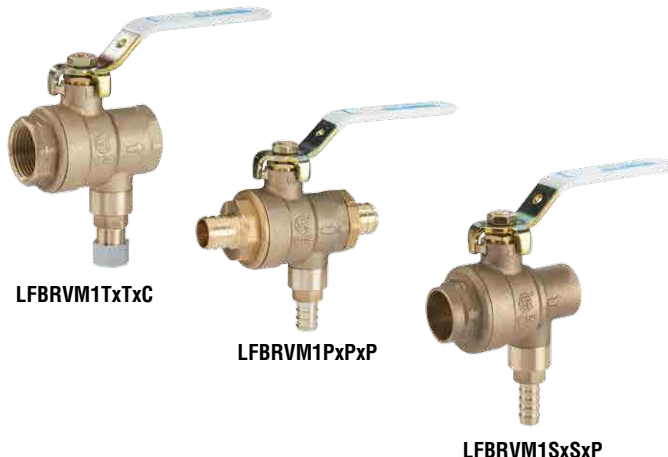
- Easy Installation - Installs in any position
- Low profile design
- Full port ball valve with virgin PTFE seats
- Blowout proof stem

**Specifications**

Valve shall include built-in relief protection from water pressure in excess of 80 or 125psi. Each valve shall be full port construction\*\*, Lead Free\* body, chrome plated brass blowout proof stainless steel ball and stem, virgin PTFE seats, PTFE stem packing and stem thrust bearing, Viton® relief disc and stainless steel relief spring. Lead Free\* combination ball valve and relief valve shall be constructed using Lead Free\* materials. Lead Free\* valves shall comply with state codes and standards, where applicable, requiring reduced lead content. Valves shall include brass compression nut and ferrule or PEX end connection or barbed end for a drain line. Valve shall be IAPMO listed, CSA approved, and NSF certified. Valve shall be a Watts Series LFBRVM1.

\*\* PEX end connections reduce full port to reduced port dimensions.

Viton® is a registered trademark of DuPont Dow Elastomers.



**Models**

INLET	OUTLET	RELIEF OUTLET	RELIEF PRESSURE
Sweat	Sweat	PEX	80
Sweat	Sweat	Compression	125
Sweat	Sweat	Barb	125
Thread	Thread	Compression	80 or 125
Thread	Thread	Barb	125
PEX	PEX	Compression	125
PEX	PEX	PEX	125
PEX	PEX	Barb	125

**NOTICE**

**For Sweat Connections Only:**

This valve is designed to be soft soldered into lines without disassembly, using a low temperature solder 420°F (216°C). Other solders such as 95/5 tin antimony 460°F (238°C) or 96/4 tin silver 430°F (221°C) can be used. However, extreme caution must be used to prevent seat damage. Higher temperature solders will damage the seat material. ANSI B16.18 states that the maximum operating pressure of 50-50 solder connections is 200psi (14 bar) at 100°F (38°C) and decreases with higher temperatures.

**NOTICE**

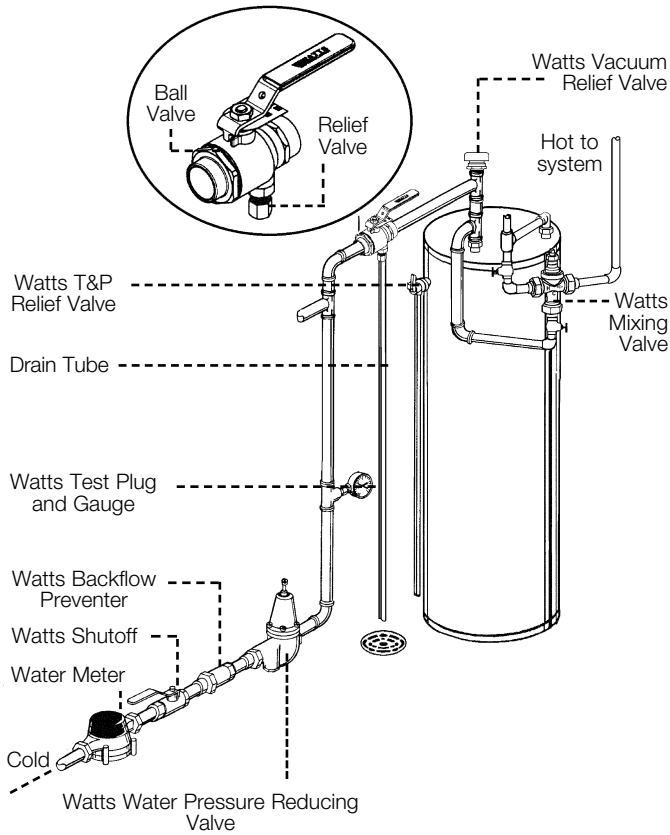
Apply heat with the flame directed AWAY from the center of the valve body. Excessive heat can harm the seats. After soldering, the packing nut may have to be tightened.

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

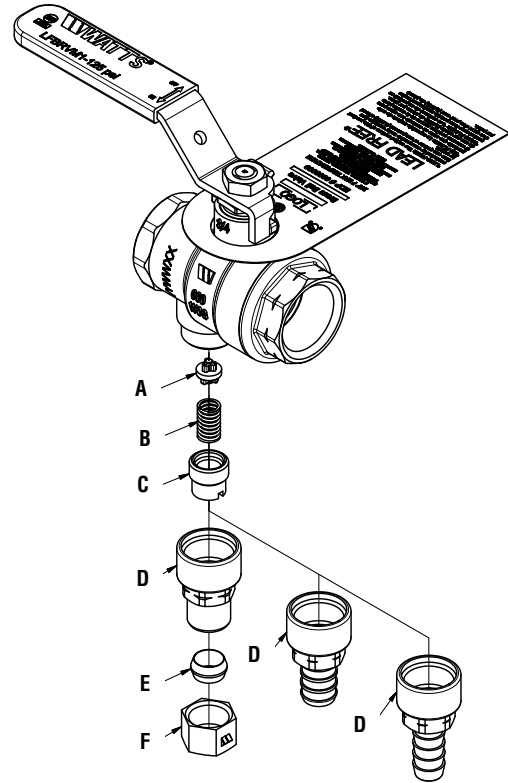
Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior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



## Installation



## Relief Valve



## Temperature — Pressure Rating

Maximum Temperature: 210°F (99°C)

Maximum Pressure: Valve body rated to 600psi (41.34 bar)

## Standards

Listed by IAPMO

CSA approved

Certified to NSF/ANSI standard 61/8.



## Material of Construction

Handle Nut - Zinc plated carbon steel

Handle - Zinc plated carbon steel with vinyl insulator

Packing Nut - Brass

Stem Packing - PTFE

Thrust Washer - PTFE

Stem - Brass

Body - Lead Free copper alloy

Seats - Virgin PTFE

Ball - Chrome plated brass

Adapter - Lead Free copper alloy

Relief Disc - Viton®

Spring - Stainless steel

Spring Cage - Brass

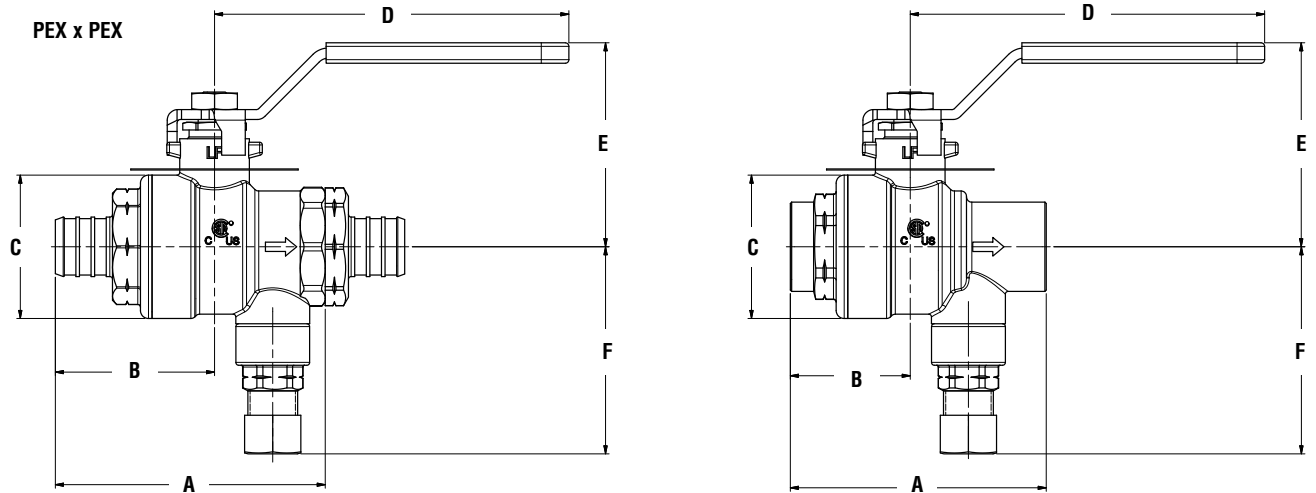
Ferrule - Brass

Nut - Brass

## COMPRESSION:

- A. Relief Disc
- B. Spring
- C. Spring Cage
- D. Adapter (comp/PEX/Barb)
- E. Ferrule
- F. Nut

## Dimensions – Weights



MODEL	INLET/ OUTLET	SIZE(DN)		DIMENSIONS												WEIGHT	
		in	mm	A		B		C		D		E		F		lbs	kg
LFBRVM1TxTxC	THD x THD	3/4	20	2 5/8	67	1 1/4	31	1 5/8	41	4	101	2 5/16	58	2 5/16	59	1.05	0.48
LFBRVM1TxTxB	THD x THD	3/4	20	2 5/8	67	1 1/4	31	1 5/8	41	4	101	2 5/16	58	2 7/16	62	1.02	0.46
LFBRVM1PxPxP	PEX x PEX	3/4	20	3	77	1 13/16	45	1 5/8	41	4	101	2 5/16	58	2 5/16	59	1.24	0.56
LFBRVM1PxPxP	PEX x PEX	3/4	20	3	77	1 13/16	45	1 5/8	41	4	101	2 5/16	58	2 1/4	57	1.21	0.55
LFBRVM1SxSxC	SWT x SWT	3/4	20	2 7/8	73	1 5/16	34	1 5/8	41	4	101	2 5/16	58	2 5/16	59	0.96	0.44
LFBRVM1SxSxB	SWT x SWT	3/4	20	2 7/8	73	1 5/16	34	1 5/8	41	4	101	2 5/16	58	2 7/16	62	0.94	0.43
LFBRVM1SxSxP	SWT x SWT	3/4	20	2 7/8	73	1 5/16	34	1 5/8	41	4	101	2 5/16	58	2 1/4	57	0.94	0.43
LFBRVM1PxPxP	PEX x PEX	3/4	20	3	77	1 13/16	45	1 5/8	41	4	101	2 5/16	58	2 7/16	62	1.21	0.55



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