

# BALANCE VALVES Lead-Free\* Circuit Setter® Plus

## Description

The Circuit Setter Plus and Circuit Setter Plus RF provide the perfect balance of adjustability and efficiency for potable water and HVAC systems. They are precisely calibrated for use as a presettable balance valve, variable orifice flow meter and positive shut-off service valve. They are also designed for optimal system efficiency and water conservation. The Circuit Setter Plus and Circuit Setter Plus RF can provide the perfect balancing solutions for your potable water and HVAC system.

Save time, energy and water with the lead-free Circuit Setter Plus and Circuit Setter Plus RF.

- Designed for all plumbing and HVAC systems.
- Provides equal flow throughout all circuits to conserve water and optimize system efficiency.
- Calibrated accurate flow control and measurement.
- Bi-directional design allows any installation configuration.
- Externally adjustable manual balance valve for easy adjustment.
- Reduces pump energy requirements.
- Meets or exceeds stringent codes for potable water.
- Includes memory stop indicator.
- Provides drain option.
- Provides positive shut off and isolation.
- Includes pressure/temperature ports.

## Materials of Construction

Body: Brass ASTM B283-C69300\*  
Ball: 304 Stainless Steel  
Seat Rings: Glass and Carbon filled TFE  
Readout Valves: Brass with EPT check valves  
Stem "O" Ring: EPDM

## Maximum Working Pressure

NPT Models: 400 PSIG (2758 kPa)  
Sweat Models: See table below

## Maximum Operating Temperature

-4°F (-20°C) to 250°F (121°C)

\*CSA certified to NSF/ANSI 372 that product contains less than 0.25% lead content by weight on wetted surface.

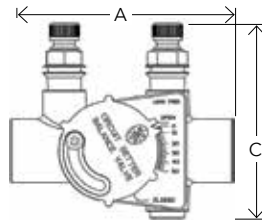
| Type Solder          | Maximum Pressure Limitations for 1/2" - 1" with Solder Connections |              |
|----------------------|--|--------------|
|                      | Pressure PSI kPa   | Temp °F (°C) |
| 95-5<br>Tin-Antimony | 300 (2068)   | 200 (93)     |
|                      | 250 (1724)   | 225 (107)    |
|                      | 200 (1379)   | 250 (121)    |



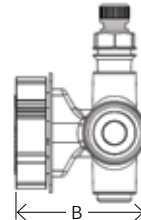
CB-1SLF



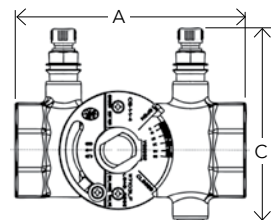
CB-1LF



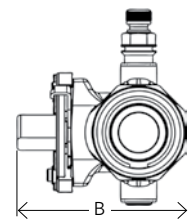
TOP VIEW 1/2"-1"



END VIEW 1/2"-1"



TOP VIEW 1 1/4"-3"



END VIEW 1 1/4"-3"

## Specifications

| Model Number | Part Number | Size   | Connection Type | Dimensions** in Inches (mm) |              |              | Weight in lbs. (kg) |
|--------------|-------------|--------|-----------------|-----------------------------|--------------|--------------|---------------------|
|              |             |        |                 | A                           | B            | C            |                     |
| RF-1/2S LF   | 117410LF    | 1/2"   | Sweat           | 2.91 (73.9)                 | 1.82 (46.2)  | 2.85 (72.4)  | 0.6 (0.27)          |
| RF-3/4S LF   | 117411LF    | 3/4"   | Sweat           | 3.51 (89.2)                 | 2.05 (52.1)  | 3.10 (78.7)  | 0.75 (0.34)         |
| CB-1/2S LF   | 117412LF    | 1/2"   | Sweat           | 2.91 (73.9)                 | 1.82 (46.2)  | 2.85 (72.4)  | 1 (0.45)            |
| CB-3/4S LF   | 117413LF    | 3/4"   | Sweat           | 3.51 (89.1)                 | 2.05 (52.1)  | 3.10 (78.7)  | 1.25 (0.6)          |
| CB-1S LF     | 117401LF    | 1"     | Sweat           | 4.29 (109)                  | 2.33 (59.2)  | 3.33 (84.6)  | 2 (0.91)            |
| CB-1 1/4S LF | 117402LF    | 1 1/4" | Sweat           | 4.91 (124.7)                | 3.08 (78.2)  | 3.69 (93.7)  | 3.5 (1.6)           |
| CB-1 1/2S LF | 117403LF    | 1 1/2" | Sweat           | 5.21 (132.3)                | 3.27 (83)    | 3.95 (100.3) | 3.8 (1.7)           |
| CB-2S LF     | 117404LF    | 2"     | Sweat           | 6.31 (160.3)                | 3.83 (97.3)  | 4.44 (112.8) | 6.2 (2.8)           |
| CB-1/2 LF    | 117414LF    | 1/2"   | NPT             | 2.94 (74.7)                 | 1.98 (50.3)  | 3.02 (76.7)  | 1.25 (0.6)          |
| CB-3/4 LF    | 117415LF    | 3/4"   | NPT             | 3.06 (77.7)                 | 2.17 (55.1)  | 3.12 (79.2)  | 1.5 (0.7)           |
| CB-1 LF      | 117416LF    | 1"     | NPT             | 3.81 (96.8)                 | 2.47 (62.7)  | 3.42 (86.9)  | 2 (0.9)             |
| CB-1 1/4 LF  | 117103LF    | 1 1/4" | NPT             | 4.41 (112)                  | 3.19 (81)    | 3.69 (93.7)  | 3.5 (1.6)           |
| CB-1 1/2 LF  | 117104LF    | 1 1/2" | NPT             | 4.42 (112.3)                | 3.37 (85.6)  | 3.95 (100.3) | 3.8 (1.7)           |
| CB-2 LF      | 117105LF    | 2"     | NPT             | 5.13 (130.3)                | 3.98 (101.1) | 4.44 (112.8) | 6.2 (2.8)           |
| CB-2 1/2 LF  | 117106LF    | 2 1/2" | NPT             | 6.00 (152.4)                | 4.51 (114.6) | 4.83 (122.7) | 9 (4.1)             |
| CB-3 LF      | 117107LF    | 3"     | NPT             | 6.50 (165.1)                | 5.12 (130.0) | 5.44 (138.2) | 12 (5.4)            |

\*\* All dimensions +/0.125 (3.2 mm) tolerance. Dimensions are subject to change. Not to be used for construction purposes unless certified.