

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

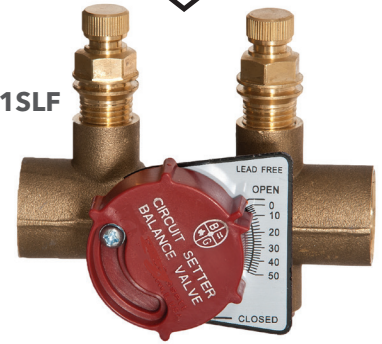
-4°F (-20°C) to 250°F (121°C)

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

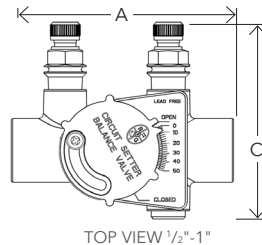
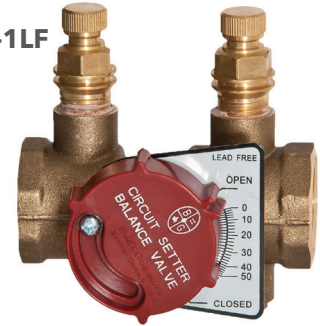
Type Solder	Maximum Pressure Limitations for 1/2" - 1" with Solder Connections	
	Pressure PSI kPa	Temp °F (°C)
95-5 Tin-Antimony	300 (2068)	200 (93)
	250 (1724)	225 (107)
	200 (1379)	250 (121)



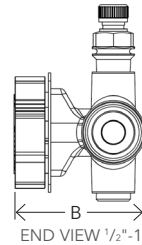
CB-1SLF



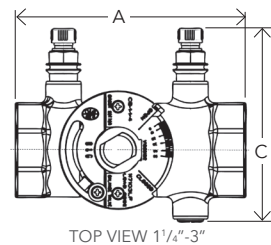
CB-1LF



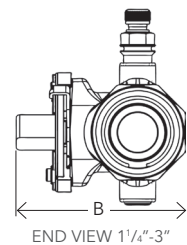
TOP VIEW 1/2"-1"



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-11/4S LF	117402LF	1 1/4"	Sweat	4.91 (124.7)	3.08 (78.2)	3.69 (93.7)	3.5 (1.6)
CB-11/2S 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.

BALANCE VALVES Circuit Sentry™ Flo-Setter™ II

Description

The Circuit Sentry Flo-Setter II valve is a field adjustable pressure independent flow limiter that maintains set flow rates regardless of pressure fluctuations in the system; eliminates overflow.

- The unique **GPM dial** is easy to set.
- Requires no instruments, charts or wheels
- Saves pump energy and improves coil efficiency
- No minimum straight pipe lengths required
- Integrated pressure / temperature ports included
- Large open flow paths for clog-free operation
- Integrated isolation/shut-off capability

Materials of Construction

Body: Brass (1/2" - 1-1/4")
Ductile Iron (1-1/2" - 2")
Flow Setting: PA6 20% Glass
Spring: Stainless Steel
Diaphragm: HNBR
O-Rings: EPDM

Maximum Working Pressure

375 PSIG (2585 kPa)

Maximum Operating Temperature

14°F (-10°C) to 248°F (110°C)

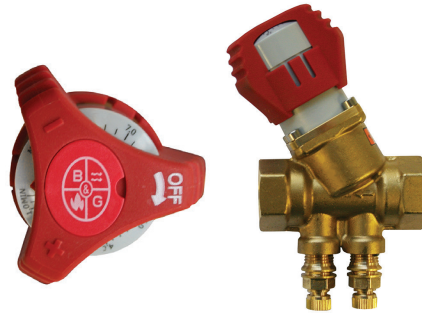
Control Range

Maximum 58 PSI (399 kPa) Delta P

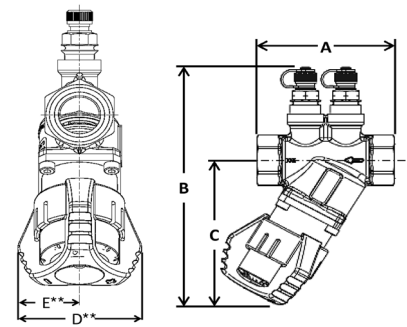
Accuracy

+/- 5%

New GPM dial

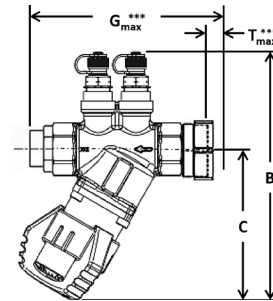
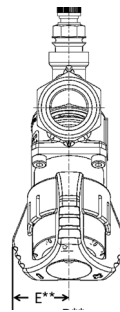


Circuit Sentry Flo-Setter II



Circuit Sentry Flo-Setter II Specifications

Model Number	Part Number	Size	Connection Type	DIMENSIONS* IN INCHES (mm)					Flow Capacity in GPM (L/hr)		Approx. Weight lbs. (kg)
				A	B	C	D**	E**	Min.	Max.	
FS-1/2	117630	1/2"	NPT Female	2.9 (75)	5.6 (144)	3.4 (87)	2.24 (57)	1.12 (28)	0.26 (60)	4.75 (1,080)	1.1 (0.5)
FS-3/4	117632	3/4"	NPT Female	3.1 (79)	5.6 (144)	3.4 (87)	2.24 (57)	1.12 (28)	0.45 (102)	8.50 (1,930)	1.3 (0.6)
FS-1	117643	1"	NPT Female	3.9 (100)	6.8 (173)	4.3 (110)	2.54 (65)	1.27 (33)	0.60 (136)	10.56 (2,400)	2.8 (1.3)
FS-1-1/4	117636	1 1/4"	NPT Female	4.0 (104)	7.0 (178)	4.3 (110)	2.54 (65)	1.27 (33)	0.88 (200)	22.01 (5,000)	3.1 (1.4)
FS-1-1/2	117637	1 1/2"	NPT Female	5.4 (138)	7.9 (201)	5.1 (131)	3.60 (92)	1.80 (46)	3.17 (719)	32.58 (7,400)	6.6 (3.0)
FS-2	117638	2"	NPT Female	5.4 (138)	8.1 (207)	5.1 (131)	3.60 (92)	1.8 (46)	3.96 (900)	45.57 (10,350)	7.5 (3.4)



Model AF

Model AF Specifications (includes union tailpiece)

Model Number	Valve Size Fixed End	Connection Fixed End	DIMENSIONS* IN INCHES (mm)						Flow Capacity in GPM (L/hr)		Approx. Weight lbs. (kg)
			B	C	D**	E**	G Max***	T Max***	Min.	Max.	
AF-1/2	1/2"	Sweat Female	5.6 (144)	3.4 (87)	2.24 (57)	1.12 (28)	5.6 (142)	1.55 (39)	0.26 (60)	4.75 (1,080)	1.2 (0.5)
		NPT Female	5.6 (144)	3.4 (87)	2.24 (57)	1.12 (28)	5.0 (127)	1.55 (39)	0.26 (60)	4.75 (1,080)	1.2 (0.5)
AF-3/4	3/4"	Sweat Female	5.6 (144)	3.4 (87)	2.24 (57)	1.12 (28)	6.3 (160)	1.55 (39)	0.45 (102)	8.50 (1,930)	1.5 (0.7)
		NPT Female	5.6 (144)	3.4 (87))	2.24 (57)	1.12 (28)	5.3 (135)	1.55 (39)	0.45 (102)	8.50 (1,930))	1.5 (0.7)
AF-1	1"	Sweat Female	6.8 (173)	4.3 (110)	2.54 (65)	1.27 (33)	7.6 (193)	2.00 (51)	0.60 (136)	10.56 (2,400)	3.1 (1.4)
		NPT Female	6.8 (173)	4.3 (110)	2.54 (65)	1.27 (33)	6.4 (163)	2.00 (51)	0.60 (136)	10.56 (2,400)	3.1 (1.4)
AF-1-1/4	1 1/4"	Sweat Female	7.0 (178)	4.3 (110)	2.54 (65)	1.27 (33)	7.9 (201)	2.00 (51)	0.88 (200)	22.01 (5,000)	3.6 (1.6)
		NPT Female	7.0 (178)	4.3 (110)	2.54 (65)	1.27 (33)	6.7 (170)	2.00 (51)	0.88 (200)	22.01 (5,000)	3.6 (1.6)
AF-1-1/2	1 1/2"	Sweat Female	7.9 (201)	5.1 (131)	3.60 (92)	1.8 (46)	10.6 (269)	2.52 (64)	3.17 (719)	32.58 (7,400)	7.6 (3.4)
		NPT Female	7.9 (201)	5.1 (131)	3.60 (92)	1.8 (46)	9.2 (234)	2.52 (64)	3.17 (719)	32.58 (7,400)	7.6 (3.4)
AF-2	2"	Sweat Female	8.1 (207)	5.1 (131)	3.6 (92)	1.80 (46)	11.7 (297)	3.14 (80)	3.96 (900)	45.57 (10,350)	8.7 (3.9)
		NPT Female	8.1 (207)	5.1 (131)	3.6 (92)	1.80 (46)	9.7 (246)	3.14 (80)	3.96 (900)	45.57 (10,350)	8.7 (3.9)

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

**Dimension is of maximum width of the handle or body, whichever is greater.

***Includes tailpiece. Measurement of maximum length tailpiece available.

For minimum differential requirements please refer to submittal A-611 on our website. Maximum differential pressure is 58 PSID.

Minimum temperature is 14°F (-10°C) to 248°F (120°C). Maximum operating pressure is 375 PSI.

NOTE: Model AF valves are configured valves and therefore have no part numbers. They include union tail pieces and can be selected to include optional ball isolation/shut-off valve.