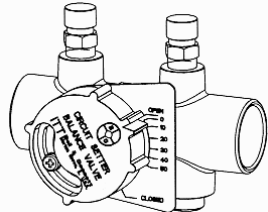
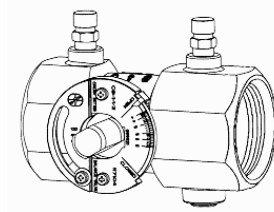


<b>JOB:</b>   <b>UNIT TAG:</b> <b>ENGINEER:</b> <b>CONTRACTOR:</b>	<b>REPRESENTATIVE:</b>   <b>ORDER NO.</b> <b>SUBMITTED BY:</b> <b>APPROVED BY:</b>	<b>DATE:</b> <b>DATE:</b> <b>DATE:</b>
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## Circuit Setter® Plus

Calibrated Balance Valves  
with NPT and Solder Connections



### DESCRIPTION

The Bell & Gossett CIRCUIT SETTER PLUS calibrated balance valve is a precision machined ball type triple purpose balancing instrument. It is precisely calibrated for use as a presettable balance valve, variable orifice flow meter and positive shut-off service valve. Valves are furnished with a calibrated nameplate and memory stop indicator which permits the valve to be preset to a fixed open position and then closed for service without disturbing valve setting. Valves are equipped with capped readout valves fitted with internal check valves and 1/4" NPT tapped and plugged drain port.

### CONSTRUCTION

Body: Bronze  
 Ball: Brass  
 Seat Rings: Glass and Carbon filled TFE  
 Readout Valves: Brass with EPT check valves  
 Stem "O" Ring: EPDM

### MAXIMUM WORKING PRESSURE

NPT Models: 300 psig (2069 kPa)  
 Sweat Models: 200 psig\* (1379 kPa)

### MAXIMUM OPERATING TEMPERATURE

250°F (121°C)

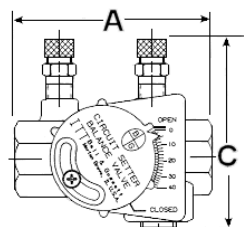
\*See Instruction Sheet G95873

### SCHEDULE

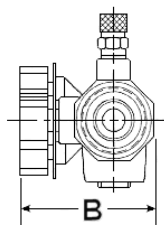
MODEL NO.	PART NUMBER	TAGGING INFORMATION	QUANTITY
CB-1/2S	117412		
CB-3/4S	117413		
CB-1S	117401		
CB-1-1/4S	117402		
CB-1-1/2S	117403		
CB-2S	117404		
CB-1/2	117414		
CB-3/4	117415		
CB-1	117416		
CB-1-1/4	117103		
CB-1-1/2	117104		
CB-2	117105		
CB-2-1/2	117106		
CB-3	117107		

Bell & Gossett

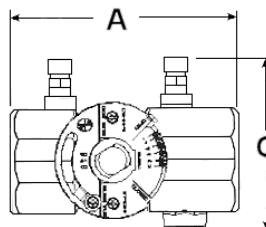




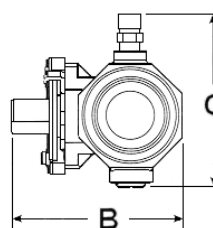
TOP VIEW 1/2"-1"



END VIEW 1/2"-1"



TOP VIEW 1 1/4"-3"



END VIEW 1 1/4"-3"

## DIMENSIONS AND WEIGHTS

MODEL NUMBER	DIMENSIONS IN INCHES (MM)					WEIGHT IN LBS. (KG)
	SIZE	CONNS.	A	B	C	
CB-1/2S	1/2	SWEAT	2-15/16 (74.6)	2-1/8 (54)	2-9/16 (65.1)	1 (0.5)
CB-3/4S	3/4	SWEAT	3-1/2 (88.9)	2-1/4 (57.2)	2-3/4 (69.9)	1-1/4 (0.6)
CB-1S	1	SWEAT	4-9/32 (108.7)	2-3/8 (60.3)	3-11/32 (84.9)	2 (.9)
CB-1-1/4S	1-1/4	SWEAT	4-29/32 (124.6)	3-3/16 (81)	3-3/8 (85.7)	3 (1.4)
CB-1-1/2S	1-1/2	SWEAT	5-7/32 (132.6)	3-9/32 (83.3)	4 (101.6)	3-1/2 (1.6)
CB-2S	2	SWEAT	6-5/16 (160.3)	3-29/32 (99.2)	4-15/32 (113.5)	5-1/2 (2.5)
CB-1/2	1/2	NPT	2-15/16 (74.6)	2-3/16 (55.6)	2-3/4 (69.9)	1-1/4 (0.6)
CB-3/4	3/4	NPT	3-1/16 (77.8)	2-3/8 (60.3)	2-15/16 (74.6)	1-1/2 (0.7)
CB-1	1	NPT	3-13/16 (96.8)	2-11/16 (68.3)	3-3/16 (81)	2 (0.9)
CB-1-1/4	1-1/4	NPT	4-3/8 (111.1)	3-9/32 (83.3)	3-1/2 (88.9)	3-1/4 (1.5)
CB-1-1/2	1-1/2	NPT	4-7/16 (112.7)	3-15/32 (88.1)	3-13/16 (96.8)	3-3/4 (1.7)
CB-2	2	NPT	5-1/8 (130.2)	4-1/32 (102.4)	4-1/4 (108)	5-1/2 (2.5)
CB-2-1/2	2-1/2	NPT	6 (152.4)	4-17/32 (115.1)	4-11/16 (119.1)	8-3/4 (4.0)
CB-3	3	NPT	6-1/2 (165.1)	5-7/32 (132.6)	5-5/16 (134.9)	12-3/4 (5.8)

Dimensions are subject to change. Not to be used for construction purposes unless certified.

## TYPICAL SPECIFICATION

Furnish and install as shown on plans with manufacturer recommendations Model CB calibrated balance valves.

## PRE-SET BALANCE FEATURE

Valves to be designed to allow installing contractor to pre-set balance points for proportional system balance prior to system start-up in accordance with pre-set balance schedule.

## VALVE DESIGN AND CONSTRUCTION

All valves 1/2" to 3" pipe size to be of bronze body/brass ball construction with glass and carbon filled TFE seat rings. Valves to have differential pressure read-out ports across valve seat area. Read-out ports to be fitted with internal EPT inserts and check valves. Valve bodies to have 1/4" NPT tapped drain/purge port. Valves to have memory stop feature to allow valve to be closed for service and then reopened to set point without disturbing balance position. All valves to have calibrated nameplates to assure specific valve settings. Valves shall be designed for positive shut-off.

## DESIGN PRESSURE/TEMPERATURE

A. 1/2" - 3" NPT connections 300 psig (2069 kPa) at 250°F (121°C)

B. 1/2" - 2" Sweat connections 200 psig (1379 kPa) at 250°F (121°C)

All balance valves to be ITT Bell & Gossett Model No. CB-\_\_\_\_\_ (note sizes).

## IMPORTANT:

When monitoring system flow, care must be exercised to avoid direct skin or eye contact with liquids that may escape. Liquids with temperatures in excess of 120°F (49°C) may cause burns.

Bell & Gossett Circuit Setter Balance Valves are not recommended for use with meter connections pointing downward.



# Bell & Gossett

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