



# Grinnell

by Tyco Fire Suppression & Building Products

## Model CB800

### Double Regulating and Commissioning Valves

#### Available in Sizes ½ to 12 Inches

The Model CB800 Double Regulating and Commissioning Valves offer features necessary to achieve accurate and efficient balancing of hydronic heating or cooling systems. One valve series performs five functions: throttling, measuring (pressure and temperature), positive shutoff, draining, and filling.

The Y pattern provides minimum pressure drop across the valve. The CB800 globe style design ensures precise throttling. Both the hand-wheel and test ports are located on the same side for easy access. The digital/vernier hand-wheel may be reoriented a minimum of 70 unique positions to allow for accuracy. The hand-wheel lock feature prevents unauthorized hand-wheel movement. A built-in memory stop ensures return to the balanced position after shutoff.

#### Additional Features

- Double Regulating and Commissioning Valves provide superior accuracy in measuring flows, rather than ball type circuit setters
- The Double Regulating and Commissioning Valve is installed with flow in the direction of the arrow, and may be in the horizontal or vertical position. The hand-wheel can be positioned up or down, or on either side
- Backed by the industry's best 10-Year Limited Warranty



### Technical Data

#### Sizes

- ½ to 2 inches (DN15 to DN50) Female BSP
- 2-½ to 12 inches (DN65 to DN300) Grooved
- 2-½ to 12 inches (DN65 to DN300) Flanged

#### Maximum Pressure

- 300 psi (20,7 bar)  
Grooved Connection
- 235 psi (16,0 bar)  
Flanged

#### Materials of Construction

- Body  
Dezincification resistant brass (Female BSP)  
Cast Iron (Flanged and Grooved)
- Stem  
Dezincification resistant brass
- Valve Disc  
½ to 2 inches – Dezincification resistant brass  
2-½ to 12 inches – Bronze
- O-Ring (EPDM)
- Hand-Wheel  
Thermoplastic



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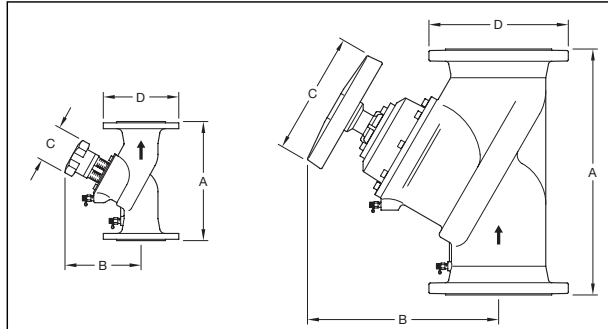


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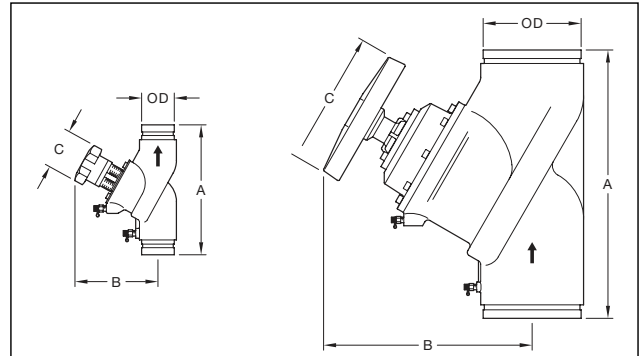
2-1/2 (DN65) to 6 (DN150)

8 (DN200) to 12 (DN300)

Nominal Pipe Size DN Inches	Nominal Dimensions mm (Inches)				Approx. Weight kg (Lbs.)	Limits bar/°C (psi/°F)
	A	B	C	D		
DN65 2-1/2	290,6 (11.44)	187,5 (7.38)	110,0 (4.33)	184,2 (7.25)	13,5 (18.7)	16/150 (235/300)
DN80 3	311,2 (12.25)	203,2 (8.00)	110,0 (4.33)	200,2 (7.88)	18,0 (39.6)	16/150 (235/300)
DN100 4	349,3 (13.75)	241,3 (9.50)	160,0 (6.30)	220,7 (8.69)	28,0 (61.6)	16/150 (235/300)
DN125 5	400,1 (15.75)	282,7 (11.13)	160,0 (6.30)	250,9 (9.88)	40,5 (89.1)	16/150 (235/300)
DN150 6	479,6 (18.88)	285,8 (11.25)	160,0 (6.30)	285,8 (11.25)	51,5 (113.3)	16/150 (235/300)
DN200 8	600,2 (23.63)	466,9 (18.38)	300,0 (11.8)	339,9 (13.38)	129,5 (284.9)	16/150 (235/300)
DN250 10	730,3 (28.75)	481,1 (18.94)	300,0 (11.80)	404,9 (15.94)	196,0 (431.2)	16/150 (235/300)
DN300 12	850,9 (33.50)	514,4 (20.25)	300,0 (11.80)	460,5 (18.13)	264,0 (580.8)	16/150 (235/300)

Flanges are drilled for PN16

**FIGURE 1**  
NOMINAL DIMENSIONS  
MODEL CB800 FLANGED BALANCING VALVE



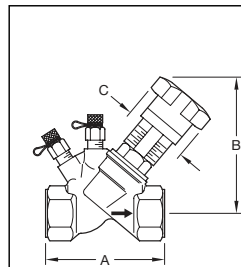
2-1/2 (DN65) to 6 (DN150)

8 (DN200) to 12 (DN300)

Nominal Pipe Size DN Inches	O.D. mm (Inches)	Nominal Dimensions mm (Inches)			Approx. Weight kg (Lbs.)	Limits bar/°C (psi/°F)
		A	B	C		
DN65 2-1/2	73,0 (2.875)	290,6 (11.44)	188,0 (7.40)	110,0 (4.33)	8,9 (19.6)	16/150 (300/300)
DN65 2-1/2	76,1 (2.97)	290,0 (11.42)	188,0 (7.40)	110,0 (4.33)	9,1 (20.1)	16/150 (300/300)
DN80 3	88,9 (3.500)	311,2 (12.25)	203,2 (8.00)	110,0 (4.33)	12,7 (28.0)	16/150 (300/300)
DN100 4	114,3 (4.500)	349,3 (13.75)	239,8 (9.44)	160,0 (6.30)	20,7 (45.7)	16/150 (300/300)
DN125 5	139,7 (5.47)	400,0 (15.75)	283,0 (11.14)	160,0 (6.30)	32,2 (71.0)	16/150 (300/300)
DN125 5	141,3 (5.55)	400,0 (15.75)	283,0 (11.14)	160,0 (6.30)	32,2 (71.0)	16/150 (300/300)
DN150 6	165,1 (6.5)	480,0 (18.90)	285,0 (11.22)	160,0 (6.30)	43,2 (95.2)	16/150 (300/300)
DN150 6	168,3 (6.625)	479,6 (18.88)	285,8 (11.25)	160,0 (6.30)	44,8 (98.8)	16/150 (300/300)
DN200 8	219,1 (8.625)	600,2 (23.63)	468,4 (18.44)	300,0 (11.80)	129,0 (284.0)	16/150 (300/300)
DN250 10	273,0 (10.750)	730,0 (28.75)	479,6 (18.88)	480,0 (18.89)	155,0 (342.0)	16/150 (300/300)
DN300 12	323,9 (12.750)	850,0 (33.46)	515,0 (20.27)	300,0 (11.80)	209,0 (461.0)	16/150 (300/300)

Grooved Connection

**FIGURE 2**  
NOMINAL DIMENSIONS  
MODEL CB800 GROOVED BALANCING VALVE



Nominal Pipe Size DN Inches	Nominal Dimensions mm (Inches)			Approx. Weight kg (Lbs.)	Limits bar/°C (psi/°F)
	A	B	C		
DN15 1/2	79,5 (3.13)	114,0 (4.49)	70,0 (2.75)	0,6 (1.4)	16/150 (235/300)
DN20 3/4	84,1 (3.31)	115,8 (4.56)	70,0 (2.75)	0,6 (1.4)	16/150 (235/300)
DN25 1	97,5 (3.84)	119,1 (4.69)	70,0 (2.75)	1,0 (2.2)	16/150 (235/300)
DN32 1-1/4	111,3 (4.38)	136,7 (5.38)	70,0 (2.75)	1,4 (3.0)	16/150 (235/300)
DN40 1-1/2	120,7 (4.75)	138,2 (5.44)	70,0 (2.75)	1,7 (3.9)	16/150 (235/300)
DN50 2	150,9 (5.94)	147,6 (5.81)	70,0 (2.75)	2,6 (5.6)	16/150 (235/300)

Female BSP Thread Connection

**FIGURE 3**  
NOMINAL DIMENSIONS  
MODEL CB800 FEMALE BALANCING VALVE

Refer to **Technical Data Sheet G450** on the Model CB800 Double Regulating and Commissioning Valves, for information on technical data, ordering procedures, installation and assembly instructions, and our limited warranty.



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