



# Circuit Sentry™ Automatic Flow Limiting Valves



*Get peak operating performance from HVAC systems automatically*

- Keeps constant fluid flow, automatically compensating for fluctuating pressure conditions
- Unique diaphragm pressure control element allows one cartridge for most systems
- Large open flow paths for clog-free operation
- Union connection allows for maximum piping flexibility and elimination of unnecessary pipe fittings
- No requirement on pipe lengths before and after the valve for easier application and piping
- Broad product size range ( 1/2" to 20" )

Bell & Gossett®



**ITT Industries**  
*Engineered for life*

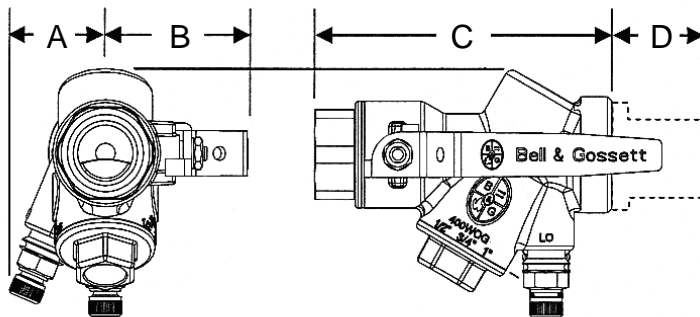


# Circuit Sentry™ Automatic Flow Limiting Valves

## Description

The Bell & Gossett Circuit Sentry, is a calibrated automatic flow limiting valve with a precision machined ball type shutoff valve, and commissioning measurement ports. The valve is designed for flow limiting-style balancing of both HVAC cooling and heating circuits; the valve is not for use in potable water systems. The use of the flow cartridge facilitates easy flushing of the piping upon commissioning the system.

The integral automatic flow rate cartridge maintains the flow rate in the controlled circuit. The optimum flow rate is maintained at a constant level even under fluctuating pressure conditions from as little as 2 PSI to as much as 60 PSI of differential pressure. In a properly designed system the valve automatically ensures system balance, regardless of changing pressure conditions normally associated with variable speed pumping. Integral P/T-ports for needle system and/or drain are available as options, as are a variety of end connections on valves from 1/2" to 2" in size, with either female NPT or sweat fixed ends, and a union end with sweat, female NPT or male NPT. Valves are normally equipped with 1" long capped readout ports fitted with internal check valves.



Valve Fixed End Size	Union End Connection	Inches				Weight Lb.	Tail Piece Weight
		A	B	C (max)	D		
1/2"	Sweat Female	1.4	1.9	4.2	0.6	1.5	0.2
	Female NPT	1.4	1.9	4.2	1.0	1.5	0.4
	Male NPT	1.4	1.9	4.2	1.0	1.5	0.2
3/4"	Sweat Female	1.4	1.9	4.4	0.9	1.5	0.4
	Female NPT	1.4	1.9	4.2	0.9	1.6	0.2
	Male NPT	1.4	1.9	4.2	1.0	1.6	0.2
1"	Sweat Female	1.4	1.9	4.4	0.9	1.6	0.2
	Female NPT	1.4	1.9	4.4	1.5	1.6	0.5
	Male NPT	1.4	1.9	4.4	1.7	1.6	0.4
1" L	Sweat Female	1.7	2.9	6.5	1.3	4.8	0.7
	Female NPT	1.7	2.9	6.4	1.4	4.8	0.8
	Male NPT	1.7	2.9	6.4	1.9	4.7	1.1
1 1/4"	Sweat Female	1.7	2.9	6.5	1.5	4.8	0.7
	Female NPT	1.7	2.9	6.4	1.4	4.8	1.0
	Male NPT	1.7	2.9	6.4	2.1	4.8	1.2
1 1/2"	Sweat Female	1.7	2.9	6.7	1.5	4.8	0.6
	Female NPT	1.7	2.9	6.4	1.6	4.8	0.8
	Male NPT	1.7	2.9	6.4	2.1	4.8	1.0
2"	Sweat Female	1.7	2.9	7.2	2.0	4.8	1.0
	Female NPT	1.7	2.9	7.2	2.6	4.8	1.1

## Materials of Construction

Valve Housing . . . . .Dezincification Resistant Brass

Sizes . . . . .1/2" – 2"

O-rings . . . . .EPDM

## Operating Data

Pressure Class Media . . . . .400 psi @ 250°F

Temperature Differential . . . . .-4° to +250°F

Diff. Pressure Range . . . . .2 – 60 PSID

Flow Range . . . . .0.33 GPM –180 GPM Per Cartridge

Glycol mixtures (both ethylene and propylene) in all solutions are applicable. Strainer is recommended.



For more information on the Bell & Gossett Circuit Sentry™ Automatic Flow Limiting Valves, contact your B&G representative.

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