FlowCal™ Automatic flow balancing valve with polymer cartridge and integral ball valve

121 Series

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Application

The FlowCal™ automatic flow balancing valve maintains a constant fixed flow rate within varying system differential pressure ranges. Operation is fully automatic requiring no manual adjustment. The 121 series utilize an exclusive, interchangeable flow cartridge, made of anti-scale, low noise polymer for use in cooling and heating systems. The FlowCal 121 series automatic flow balancing valves are available with integral shut-off ball valve and optional factory-installed pressure and temperature test ports. Drain valves are also available as an accessory for installing in the blowdown port connection.

Typical Specification

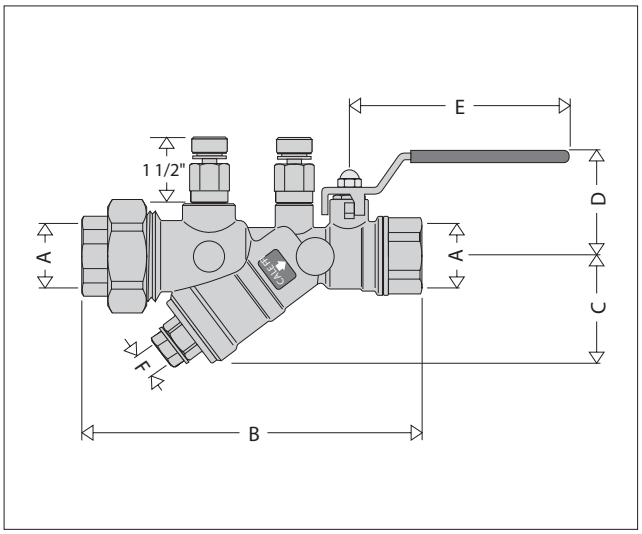
Furnish and install on the plans and describing herein, a Caleffi FLOWCAL™ automatic flow balancing valve and integral ball valve as manufactured by Caleffi . Brass body. Each balancing valve must be designed with a Y-style brass body NPT female or sweat with union by NPT female or sweat end connections, with brass pressure and temperature test port plugs. The balancing valve design must include an anti-scale polymer flow cartridge, stainless steel spring and peroxide-cured EPDM seals. The integral ball valve must include a chrome-plated brass ball, PTFE ball seat and stem seal, and a zinc plated steel lever with vinyl grip. Each valve must be designed for 32 selectable fixed flow rates ranging from 1/2 - 21 gpm with ±10% accuracy, 400 psi (400 WOG) maximum working pressure and working temperature range of 32 - 212°F (0 -100°C).
(See product instructions for specific installation information.)

Technical specifications

Valve body

Materials:	- body:	brass
	- FlowCal flow cartridge:	anti-scale polymer
	- spring:	stainless steel
	- seals:	peroxide-cured EPDM
	- ball:	brass, chrome-plated
	- ball seat and stem seal:	PTFE
	- lever:	zinc coated steel with vinyl grip
	- pressure and temperature test port plugs:	brass
	- pressure and temperature test ports:	body and cap- brass; core- nordel
	- drain port plug:	brass
Medium:		water, glycol solutions
Max. percentage of glycol:		50%
Max. working pressure:		400 psi (400 WOG)
Working temperature range:		32-212°F (0-100°C)
Connections:		1/2", 3/4", 1", 1 1/4" FNPT or Sweat with union x FNPT or Sweat
Pressure and temperature test ports connections:		1/4" FNPT
Blowdown port connection:		1/2" - 3/4": 1/4" FNPT 1" - 1 1/4": 1/2" FNPT
Flow rate:		32 flow rate settings ranging from 0.5 - 21 GPM
Flow accuracy:		±10%
Differential Pressure Control Ranges:		2-14,2-32,4-34,5-35, 3-32, 4-35 (see table on page 5)
Identification: metal plate with ball chain stating ΔP range and fixed flow rate		

Dimensions



Code*	A	B	C	D	E	F
121141...	½"	6 3/16"	1 15/16"	1 15/16"	3 15/16"	¼"
121151...	¾"	6 ¼"	1 15/16"	1 15/16"	3 15/16"	¼"
121161...	1"	8 5/8"	3 ¾"	2 5/8"	4 ¾"	½"
121171...	1 ¼"	8 11/16"	3 ¾"	2 5/8"	4 ¾"	½"

*Three digit suffix indicates fixed flow rate. See table on page 2.

Code	Wt (lb)*
121141...	2.7/3.2
121151...	2.7.3.2
121161...	5.0/5.5
121171...	5.0/5.5

*Weight without PT test ports / with PT test ports

Flow rate order code table

Size	GPM	Last 3 digit of code no. (...)	Pressure Differential Control Range (psid)
½", ¾"	0.35	G35	2 - 14
	0.5	G50	
	0.75	G75	
	1.0	1G0	2 - 32
	1.3	1G3	
	1.5	1G5	
	1.7	1G7	
	2.0	2G0	
	2.2	2G2	
	2.5	2G5	
½", ¾",1"	2.6	2G6	
	3.0	3G0	
	3.5	3G5	
½", ¾",1", 1¼"	4.0	4G0	
	4.5	4G5	
	5.0	5G0	
	6.0	6G0	4 - 34
	7.0	7G0	
	8.0	8G0	
	9.0	9G0	5 - 35
	10.0	10G	
1", 1¼"	11.0	11G	3 - 32
	12.0	12G	
	13.0	13G	
	14.0	14G	4 - 35
	15.0	15G	
	16.0	16G	
	17.0	17G	
	18.0	18G	
	19.0	19G	
	20.0	20G	
	21.0	21G	

Job name _____ Size _____
Job location _____ Quantity _____
Engineer _____ Approval _____
Mechanical contractor _____ Service _____
Contractor's P.O. No. _____ Tag No. _____
Representative _____ Notes _____

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