FlowCal+™ low-lead Y-body dynamic flow balancing valve

128AFC series

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Application

The FlowCal+™ 128 series Y-body dynamic flow balancing valve is pressure independent and maintains a fixed flow rate as differential pressures vary. It incorporates an exclusive flow cartridge, made of an anti-scale, low noise polymer. Constructed of DZR low-lead brass, the FlowCal+ 128 series is ideally suited for use in plumbing applications such as hot water recirculation systems. The built-in check valve protects against circuit thermo-siphoning. The outlet temperature gauge (optional) verifies the fluid temperature in the circuit. It also includes factory-installed PT ports to verify and certify flow rates where required. In addition, available separately, field-install Caleffi code 290030 full-port ball valve for isolation. The FlowCal+ can also be used in hydronic systems.

Typical Specification

Furnish and install on the plans and described herein, a Caleffi FlowCal+ low-lead Y-body dynamic automatic flow balancing valve as manufactured by Caleffi. Each balancing valve must be designed with a y-body style including 1/2", 3/4", or 1" union sweat, NPT male threaded, press, PEX crimp and PEX expansion end connections. The design must include a DZR low-lead brass body and drain plug, with connections (<0.25% Lead content) certified by ICC-ES, high abrasion resistant, anti-scale, low noise, interchangeable polymer flow cartridge, stainless steel spring, and peroxide-cured EPDM seals. Provided with inlet flow check valve, optional dual-scale outlet temperature gauge, 2 inch diameter, 30 to 210 degrees F and 0 to 100 degrees scale, and two pressure/temperature test ports. Provide with optional inlet and outlet isolation ball valves, code 290030, separately sourced, field installed. Each valve must be designed for fixed flow rates ranging from 0.35 to 10 gpm with ±10% accuracy, 400 psi (28 bar) maximum working pressure and working temperature range of 32 to 212°F (0 to 100°C). Each balancing valve shall be a Caleffi model 128AFC or approved equal.

Technical Data

Materials

Valve

Body and drain plug:	DZR low-lead brass
Flow cartridge:	anti-scale polymer
Spring:	stainless steel
Seals:	peroxide-cured EPDM

NSF/ANSI/CAN 372, Drinking Water System Components-Lead Content Reduction of Lead in Drinking Water Act, California Health and Safety Code 116875 S.3874, Reduction in Drinking Water Act, certified by ICC-ES, file PMG-1360. PEX crimp fittings certified to ASTM F 1807. PEX expansion fittings certified to ASTM F 1960. US Patent: 7,246,635 B2.

Performance

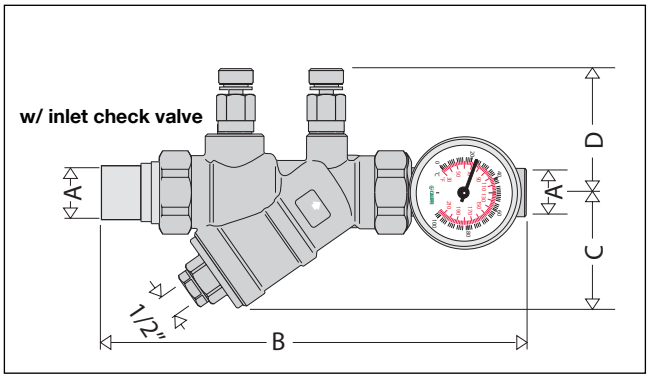
Suitable Fluids:	water, glycol solutions
Max. percentage of glycol:	50%
Max. working pressure:	400 psi (16 bar)
Working temperature range:	32 - 212°F (0–100°C)
Flow rate:	21 fixed flow settings ranging from 0.35 - 10 gpm
Flow accuracy:	±10%
Differential pressure control ranges:	2-14, 2-32, 4-34, 5-35 psid
Connections:	1/2", 3/4", 1" union sweat, NPT male, press, PEX crimp or PEX expansion

ICC ES c PMG LOW LEAD

Flow rate (GPM)	Last 3 digits (AFC___)	ΔP control ranges (psid)
0.35	G35	2 - 14
0.50	G50	
0.75	G75	
1.00	1G0	2 - 32
1.30	1G3	
1.50	1G5	
1.75	1G7	
2.00	2G0	
2.20	2G2	
2.50	2G5	

Flow rate (GPM)	Last 3 digits (AFC___)	ΔP control ranges (psid)
2.60	2G6	2 - 32
3.00	3G0	
3.50	3G5	
4.00	4G0	
4.50	4G	
5.00	5G0	
6.00	6G0	4 - 34
7.00	7G0	
8.00	8G0	
9.00	9G0	5 - 35
10.00	10G	

Dimensions



Code	A (union connections)	B	C	D	Wt (lb/kg)
**128440AFC ...	1/2" NPT male	9-11/32"	2"	2-13/16"	2.0/0.9
128441AFC ...	1/2" NPT male	7-1/8"			1.8/0.8
**128443AFC ...	1/2" PEX expansion	11-1/16"			2.0/0.9
128442AFC ...	1/2" PEX expansion	8-13/16"			1.8/0.8
**128445AFC ...	1/2" PEX crimp	10-1/6"			2.0/0.9
128444AFC ...	1/2" PEX crimp	7-13/16"			1.8/0.8
**128447AFC ...	1/2" press*	9-11/16"			2.0/0.9
128446AFC ...	1/2" press*	7-1/2"			1.8/0.8
**128448AFC ...	1/2" sweat	8-13/16"			2.0/0.9
128449AFC ...	1/2" sweat	6-9/16"			1.8/0.8
**128450AFC ...	3/4" NPT male	9-1/4"			2.0/0.9
128451AFC ...	3/4" NPT male	7"			1.8/0.8
**128453AFC ...	3/4" PEX expansion	11-1/16"			2.0/0.9
128452AFC ...	3/4" PEX expansion	8-13/16"			1.8/0.8
**128455AFC ...	3/4" PEX crimp	10-1/16"			2.0/0.9
128454AFC ...	3/4" PEX crimp	7-13/16"			1.8/0.8
**128457AFC ...	3/4" press*	10-1/8"			2.0/0.9
128456AFC ...	3/4" press*	7-7/8"			1.8/0.8
**128458AFC ...	3/4" sweat	9-1/4"			2.0/0.9
128459AFC ...	3/4" sweat	7"			1.8/0.8
**128460AFC ...	1" NPT male	9-3/4"			2.0/0.9
128461AFC ...	1" NPT male	7-1/2"			1.8/0.8
**128463AFC ...	1" PEX expansion	11-1/16"			2.2/1.0
128462AFC ...	1" PEX expansion	8-13/16"			2.0/0.9
**128465AFC ...	1" PEX crimp	10-1/4"			2.2/1.0
128464AFC ...	1" PEX crimp	8"			2.0/0.9
**128467AFC ...	1" press*	11-1/8"			2.2/1.0
128466AFC ...	1" press*	8-13/16"			2.0/0.9
**128468AFC ...	1" sweat	9-7/16"			2.2/1.0
128469AFC ...	1" sweat	7-3/16"			2.0/0.9

**with outlet temperature gauge

*Lay length for press models

Size	128xxxAFC no outlet gauge	128xxxAFC with outlet gauge
1/2 inch	5-13/16"	8-1/16"
3/4 inch	6"	8-1/4"
1 inch	7"	9-1/4"

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

Caleffi North America, Inc. 3883 West Milaukee Road / Milwaukee, WI 53208
Tel: 414.238.2360 / Fax: 414.238.2366 / www.caleffi.com