Flo-Set™

Fixed orifice balancing valve

130 Series

Submittal Data 02182-25 NA — Issue Date 09/2025

Application

Flo-Set™ 130 series manual balancing valves are used in hydronic heating and cooling systems, domestic hot water recirculation loops, and other closed or open fluid distribution systems requiring accurate flow balancing and adjustment. They are installed at terminal units, branch lines, or risers to ensure proper distribution of flow, optimize system efficiency, and maintain designed operating conditions. Typical applications include fan coil units, air handling units, heat exchangers, radiant heating manifolds, and domestic hot water return piping.

Typical Specification

Furnish and install, as shown on the plans, a Flo-Set™ 130 series manual balancing valve with fixed Venturi orifice as manufactured by Caleffi. Each valve shall have NPT female threaded connections in sizes ½", ¾", 1", 1 ¼", 1 ½", and 2". The valve body, bonnet, and control stem shall be constructed of DZR low-lead brass (<0.25% lead content) and certified to NSF/ANSI/CAN 372 by ICC-ES. The valve plug shall be stainless steel. The stem shall incorporate a PTFE guide bearing and brass seal seat with peroxide-cured EPDM hydraulic seals. The adjusting knob shall be PA6G30 with integral memory stop. Pressure test ports shall be DZR low-lead brass with EPDM seal elements. The valve shall be suitable for water or water/glycol solutions up to 50% concentration, with a maximum working pressure of 232 psi (16 bar) and a working temperature range of -4 to 250 °F (-20 to 120 °C). The valve shall have six adjustment turns and a flow measurement accuracy of ±10%. Pre-formed insulation shells shall be available for field installation. Optional inlet and outlet isolation may be provided by full-port low-lead brass ball valves, if so Caleffi NA108 series, NPT female x NPT female, with low-lead close nipples shall be used. Each valve shall be Caleffi 130 series or approved equal. (See product instructions for detailed installation requirements.)

Certification

NSF/ANSI/CAN 372, US and Canadian Low-Lead and Lead-Free materials contents laws for drinking water system components. Certified by ICC-ES, PMG File 1360.

ICC ES c PMG LOW LEAD

Technical specifications

Materials

Materials	
Body:	DZR low-lead brass
Bonnet:	DZR low-lead brass
Control stem:	DZR low-lead brass
Valve plug:	Stainless steel
Seal seat:	Brass
Hydraulic seals:	Peroxide-cured EPDM
Stem guide bearing:	PTFE
Knob:	PA6G30
Pressure test ports:	DZR low-lead brass body, EPDM seal elements
Insulation:	closed cell expanded PE-X

Performance

Suitable fluids:	Water or glycol solution
Max. percentage of glycol:	50%
Max. working pressure:	232 psi (16 bar)
Working temperature range:	-4 - 250°F (-20 - 120 °C)
Accuracy:	±10%
	6

Insulation:

Thickness:	½" (15 mm)
Density:	- inner part: 1.9 lb/ft^3 (30 kg/m^3)
	- outer part: 5.0 lb/ft^3 (80 kg/m^3)

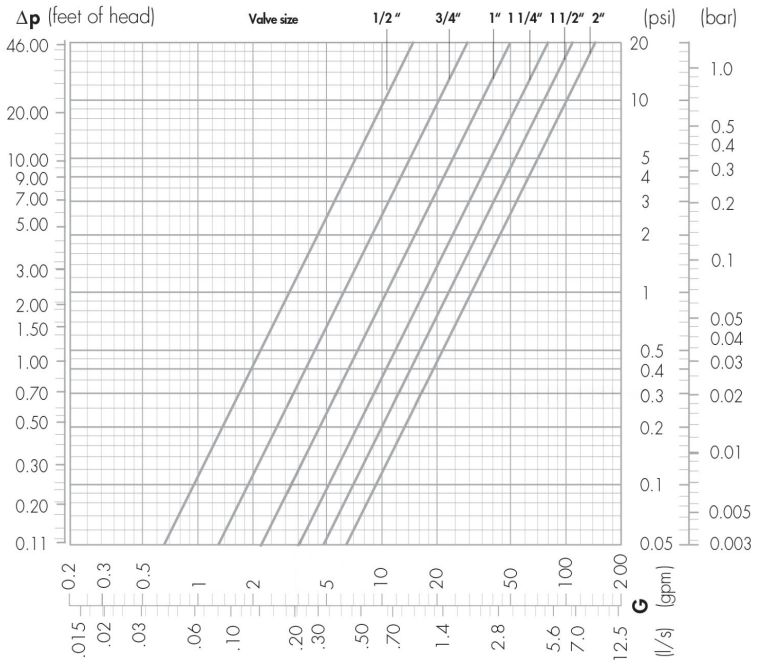
Thermal conductivity (ISO 2581):
- at 32°F (0°C): 0.263 BTU·in/hr·ft^2·°F (0.038 W/(m·K))
- at 104°F (40°C): 0.312 BTU·in/hr·ft^2·°F (0.045 W/(m·K))

Coefficient of resistance to the diffusion of water vapor (DIN 52615):	>1,300
Working temperature range:	32 - 212°F (0 - 100°C)
Reaction to fire (DIN 4102):	Class B2

Connections:

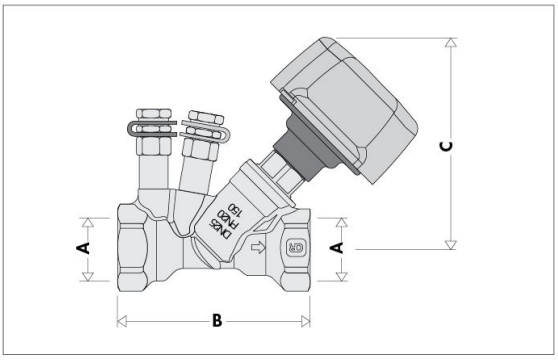
Valve body:	
Pressure test ports:	½", ¾", 1", 1 ¼", 1 ½", 2" NPT female
	¼" NPT female

Hydraulic Characteristic Chart



Size	Cv Venturi
1/2"	3.25
3/4"	6.40
1"	11.20
1 1/4"	17.65
1 1/2"	23.80
2"	32.78

Dimensions



Code	A	B	C	Wt (lb)
130400A	½" FNPT	3 7/16"	4"	1.4
130500A	¾" FNPT	3 ½"	4"	1.5
130600A	1" FNPT	4 ¼"	4 ¼"	1.8
130700A	1 ¼" FNPT	4 7/8"	4 ½"	2.3
130800A	1 ½" FNPT	5 3/8"	4 ¾"	3
130900A	2" FNPT	6 1/8"	5 ¼"	4.1

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

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