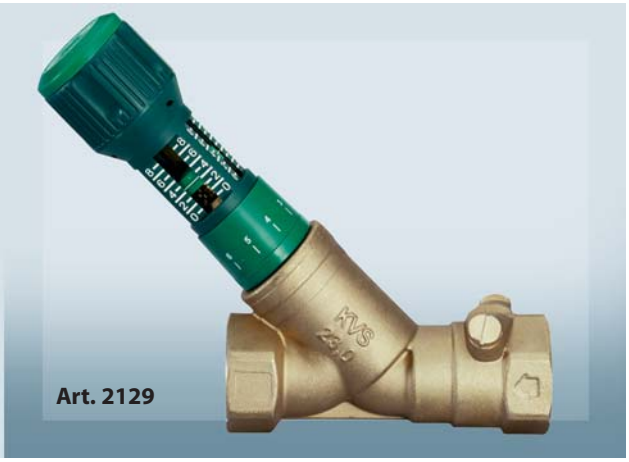
BALANCING VALVES


Art. 2130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1. DESCRIPTION

Balancing valves combine a double regulating valve with a "fixed orifice" metering station.
The valve is designed to regulate the flow capacity in water-based heating or cooling systems.
A balancing circuit ensures good performance from the terminal units in the system in keeping with the project design, thus maintaining uniform temperature conditions in the building.

Correct balancing permits optimization and reduction of energy consumption, avoiding losses from incorrect fluid distribution and limiting the velocity of the fluid medium, which could cause noise disturbance.
Use of a balancing valve makes it possible to select smaller pumps and to ensure they operate at higher efficiency - reducing electricity consumption and the risk of overheating.

Double regulating valve
"Double regulation" makes it possible to regulate and measure the flow of fluid through the valve.

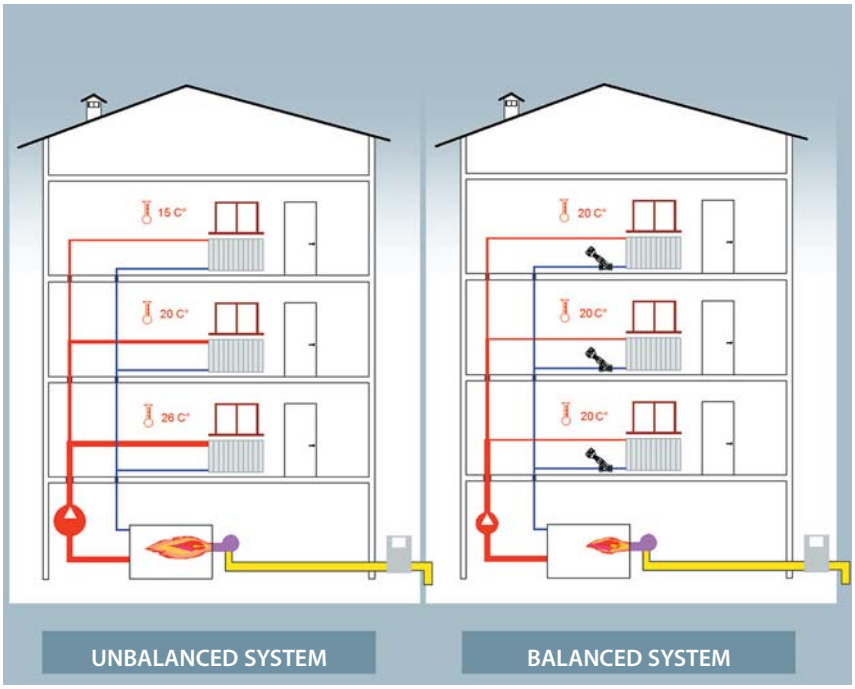
"Fixed orifice" metering
"Fixed orifice" provides an accurate means for measuring flow capacity.

2. APPLICATION RANGE

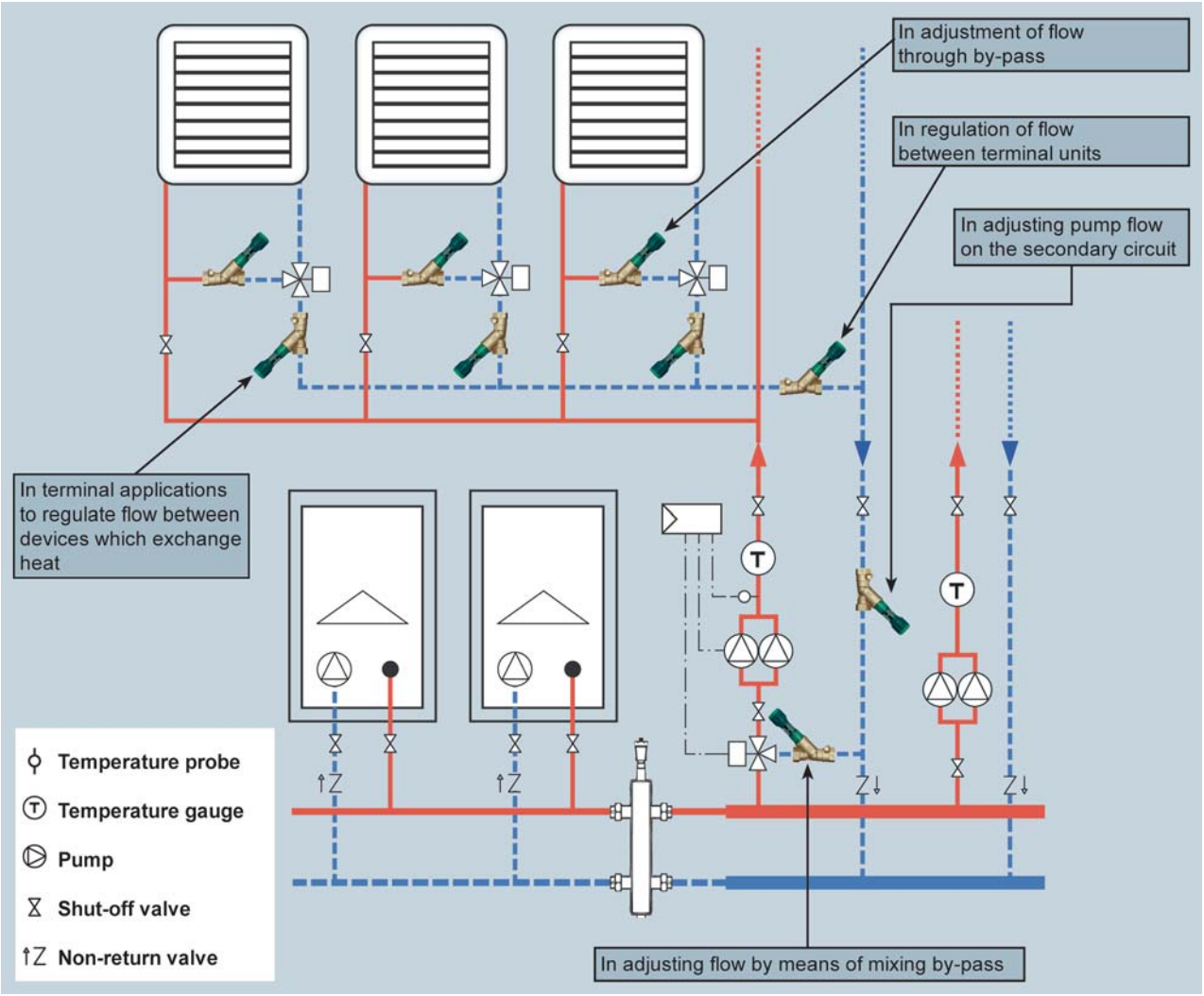
Balancing valves can be used in a range of applications:

- To regulate the capacity of the risers, or single terminals in an air-conditioning, or heating system
- To balance circuits equipped with 3-way valves
- To balance the water circuits within heating or cooling batteries, or evaporating towers
- To balance the water flow in the sanitation system

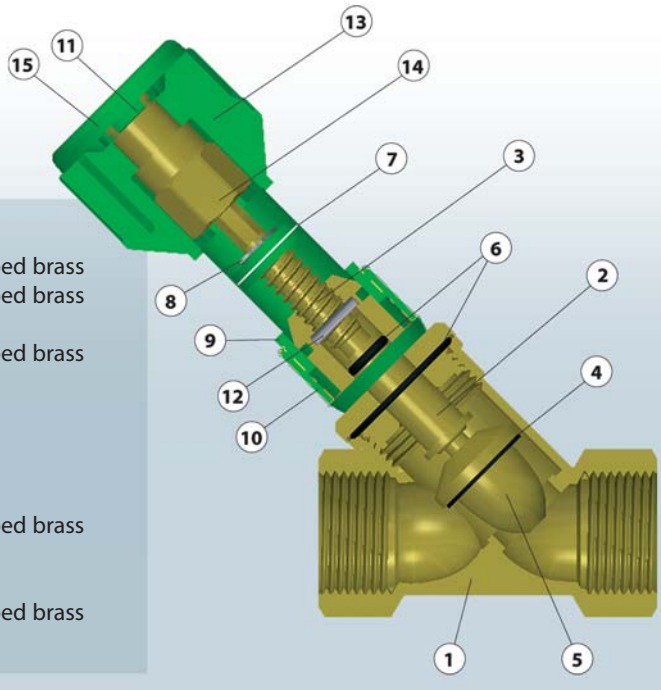
Using balancing valves in a cooling or heating system ensures that both flow volume and temperature distribution are uniform, thus reducing consumption.



The simplified schematic shows typical positions of balancing valves in heating systems



3. CONSTRUCTION MATERIAL



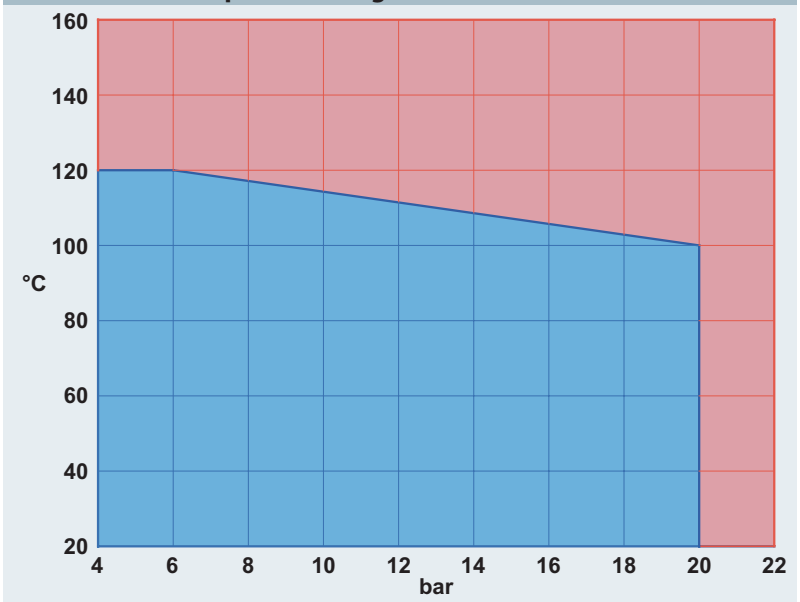
1. Body:	CR CC752S brass
2. Step bolt:	CR EN 12165 CW 602N stamped brass
3. Sliding stem:	CR EN 12165 CW 602N stamped brass
4.Gasket:	EPDM
5. Shutter:	CR EN 12165 CW 602N stamped brass
6. O-ring:	HNBR
7. Index:	HOSTAFORM ®
8. Seger:	Bronze
9. Reference clamp:	HOSTAFORM ®
10. External clamp:	HOSTAFORM ®
11. M12 memory:	CR EN 12165 CW 602N stamped brass
12. Pin:	Steel
13. Knob:	NYLON ®
14. M12 insert:	CR EN 12165 CW 602N stamped brass
15. Cover:	HOSTAFORM ®

4. TECHNICAL FEATURES

- Sizes from threaded 1/2" up to 2".
- Body made in CR brass
- Shaped shutter with closing gasket in EPDM
- Micrometric regulating handle with anti-tampering memory device
- Graduated scale with 360° reading
- Working pressures up to 20 bar

To appreciate the limits of balancing valves refer to the pressure/temperature diagram shown here. Application range is indicated by the blue area.

Pressure-Temperature diagram



5. MEASURING DEVICES

To carry out system balancing it is necessary to adjust each valve by turning the graduated handle up to the value corresponding to desired flow. When calibrating FAR balancing valves use the diagrams shown in the relevant technical literature. The balancing valves **Art. 2129** are preset with a measuring device suitable for connection to an electronic instrument, **Art. 2125**, which permits instantaneous measurement of fluid circulating inside the valve. Connection of this electronic instrument to the valve requires the use of pressure plugs **Art. 2140**.

6. FLUID DYNAMIC FEATURES

DN	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
KV	3,905	7,281	11,757	21,600	28,461	50,519

KV = Flow in m³/h at a pressure drop of 1 bar

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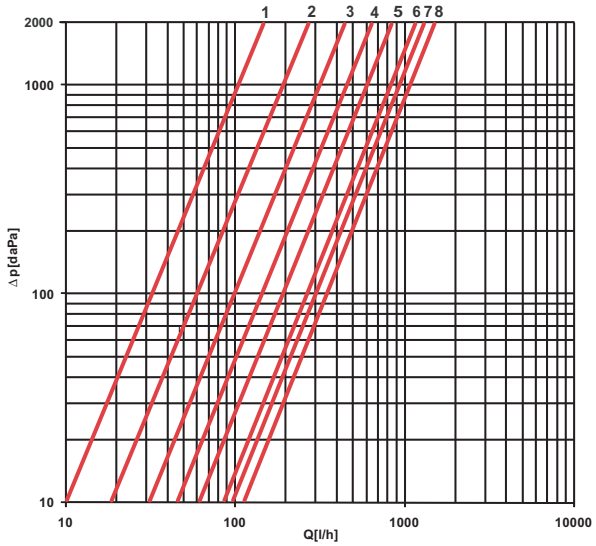

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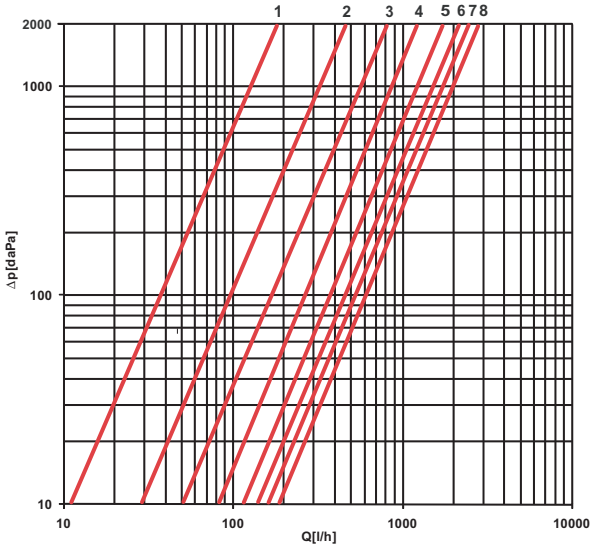

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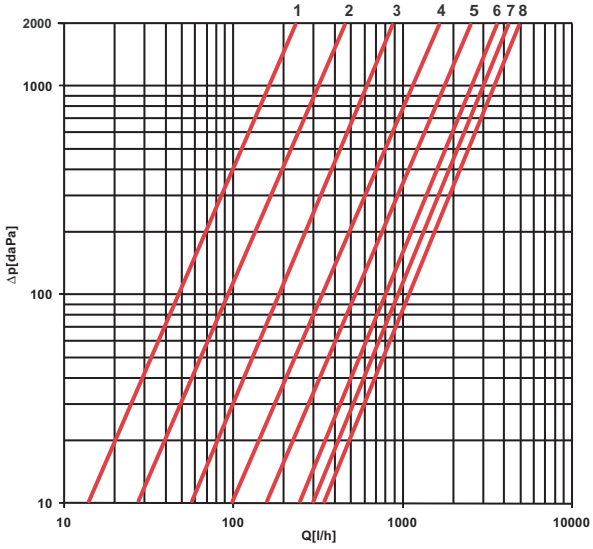

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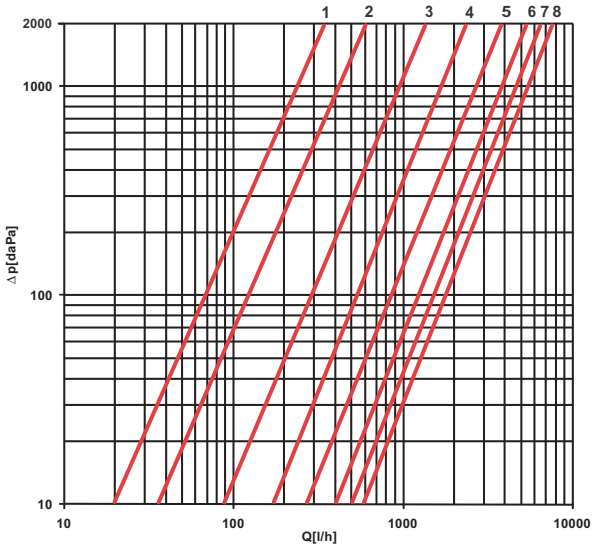

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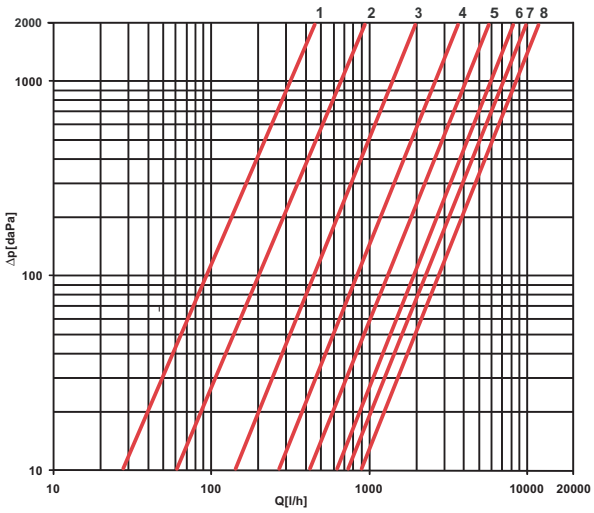

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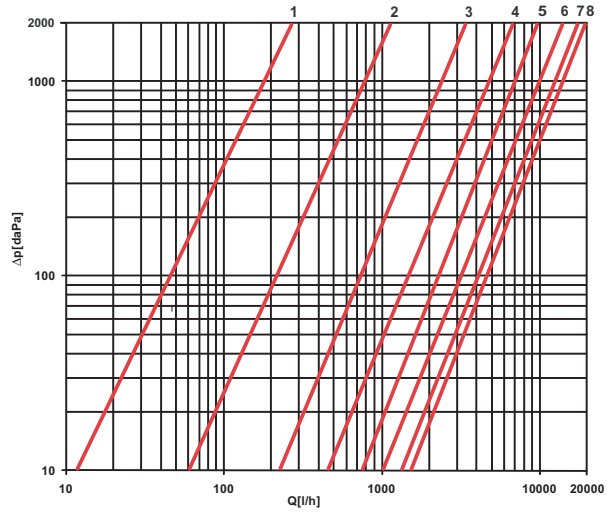
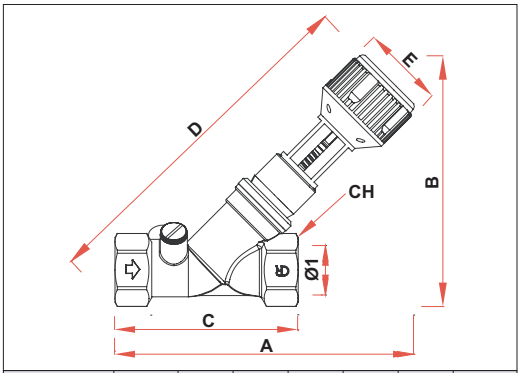
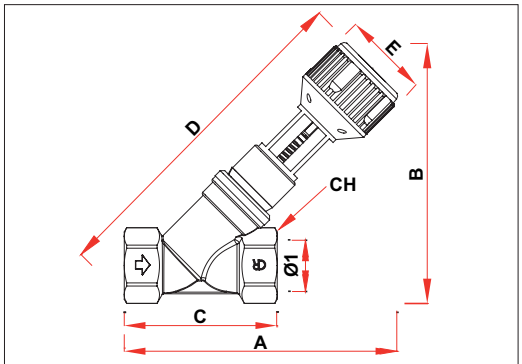


7. DIMENSIONAL FEATURES



CODE	Ø1	A	B	C	D	E	CH
2129 12	G1/2	161	125	85	185	52	28
2129 34	G3/4	185	146	97	216	52	33
2129 1	G1	186	159	113	224	52	40
2129 114	G1 1/4	207	169	144	245	52	51
2129 112	G1 1/2	260	212	163	309	58	56
2129 2	G2	281	230	193	338	58	71



CODE	Ø1	A	B	C	D	E	CH
2130 12	G1/2	138	119	68	163	52	28
2130 34	G3/4	157	139	77	190	52	33
2130 1	G1	160	154	91	202	52	40
2130 114	G1 1/4	171	169	108	220	52	51
2130 112	G1 1/2	212	211	116	276	58	56
2130 2	G2	231	230	143	302	58	71