



DOUBLE REGULATING BALANCING VALVE

15 - 50MM

All Valve
INDUSTRIES

W
ATS 5200.012
Lic. 000217



MANUAL BALANCING OF HOT WATER FLOW AND RETURN SYSTEMS

FUNCTION AND FEATURES

- High accuracy flow measurement to within $\pm 5\%$ regardless of valve setting
- A valve position indicator scale which can be read from any angle.
- Allen key locking mechanism so that valve settings can be accurately locked enabling the valve to be closed and re-opened to its exact preset position.
- An EPDM lined valve plug providing tight shut-off for isolation purposes.

PRODUCT DETAILS

Manual balancing valves are inserted to create a pressure drop so that every branch of the system is circulating at the design flow rates.

Consequences of inaccurate flow regulation in hot water circulation systems will lead to a failure to achieve design temperatures, wasted energy, noise, erosion and blockages, long delays in hot water delivery at fixtures, and increasing the risk of legionella in circuits that do not meet minimum temperatures.

Cim 747 balancing valves perfectly combine a regulating valve and a flow measuring device in a one-piece body. This solution, ensures high accuracy flow balancing across all valve settings. Cim 747 balancing valves are suitable for both domestic hot water flow and return lines, as well as closed loop heating and cooling systems.

PERFORMANCE

WORKING TEMP RANGE	-10 - 120°C
MAX WORKING PRESSURE	2,500kPa



DESIGN FLOW RATES

SUGGESTED FLOW RATES

SIZE	Flow Rate (l/s)	
	Min	Max
15MM UL	0.006	0.014
15MM L	0.013	0.029
15MM M	0.027	0.061
15MM	0.05	0.11
20MM	0.11	0.25
25MM	0.21	0.46
32MM	0.46	1.03
40MM	0.64	1.43
50MM	1.32	2.95

For detailed design guides, pressure loss charts, kV tables and more, please review the technical datasheet available on our website.

For the preliminary sizings where the value of the required pressure drop across the **valve** is not known, use a value of 10 kPa to calculate required kV values and refer to the tables of the datasheet for correct valve selection.

As a quick guideline, the suggested flow rates table on the left is based on a ΔP of between 1kPa - 5kPa across the test points of the **measuring station** of the valve.

VALVE SIZING

Applications are available on the iPhone, Android and for PC for the sizing of manual balancing valves. Alternatively, contact our technical sales team for assistance in sizing the valves in your system.



OPERATION AND COMMISSIONING

To close the valve, rotate the handle clockwise until it stops. It is possible to regulate the flow by rotating the handle anticlockwise until the required flow rate is reached.

The reading of this flow rate can be done by using the differential manometer in conjunction with the Kvs data shown in the table. The differential manometer interfaces with the balancing valve through two sensor needles inserted in the test points of the valve's calibrated fixed orifice measuring station.

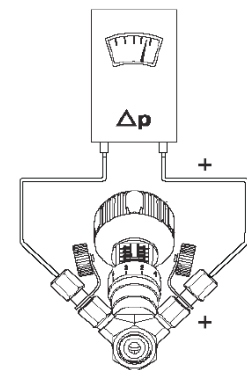
The main index scale showing values from 0 up to 8 of the handle, states the turns of opening of the obturator, while the second circular one from 0 up to 9 registers the tenths of one turn. The position of the handle for the required flow rate can be memorized by an Allen Key 6mm.

Cimdronic pressure manometers are available in two versions; a basic DM10 model designed to read differential pressures on balancing valves, and with a known kV, be able to read the flow rate. The AC6 model is a state of the art electronic commissioning meter for measurement of differential pressures and flow-rates of water in HVAC systems. A wide range of features coupled with a database of over 2500 valves, from 49 world manufacturers, make the Cimdronic 726AC6 the first choice meter for commissioning engineers.

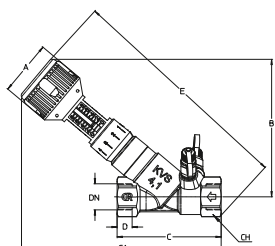


FLOW COEFFICIENTS

SIZE	Kvs
15MM UL	0.23
15MM L	0.47
15MM ML	0.98
15MM	1.80
20MM	4.06
25MM	7.45
32MM	16.63
40MM	23.00
50MM	47.50



DIAGRAM



DN	15	20	25	32	40	50
Grms.	700	980	1140	1660	2500	3740
A	51	51	51	51	57	57
B	111	128	138	141.5	181	190.5
C	85	97	113	144	163	193
C1	163	187	188	208.5	260	281.5
D	16.5	18	21	23	23	28
E	184	215	223	244	308	337
CH	28	33	40	51	56	71



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