

Chapter 4

Balancing devices
for water distribution
systems

iDROSET Series CF Innovative static balancing valve



Easy to read and adjust
Precision calibration using patented technology
No external devices needed
Real-time results

WATTS[®]

Chapter 4

Balancing devices for water distribution systems

AUTOMATIC BALANCING VALVES

MH

The MH Series patented valve is designed for dynamic balancing and flow control in underfloor heating systems. The possibility of regulating the pressure drop makes it suitable for various systems and various flow rates. The MH series valve eliminates flow and temperature fluctuations in the underfloor branches of the system, thus enhancing comfort. G1" nut inlet connection, G1" threaded outlet connection. Max. flow rate: 2500l/h. Kvs: 5.6. Capillary supplied



Part Number	Connection	Stetting range	PN	Working Temp.	Qty/Box	Box/Carton
MH001WB	inlet nut G1", outlet M G1"	15-50KPa	10 bar	5÷80°C	1	1
MH100WB	inlet M G1", outlet nut G1"	15-50KPa	10 bar	5÷80°C	1	1

Note: installation of the MH series valve requires the use of an AS fitting and respective ball-valves, according to the manifold in question.

MH-ACCESSORIES

- Shutoff ball valves with test point for connecting the capillary (KH-MH001034, KH-MH001100).
- 1" Fitting with test point for connecting the capillary (AS-MH00118).

Part Number	Description	Connection	Qty/Box	Box/Carton
KH-MH001100	Ball valve	1"F x 1" F rotary nut	1	1

Dimensions at the end of the section.

TECHNICAL NOTE - the advantages offered by the differential pressure regulation.

In systems with manifold distribution, the flow rate of the hydronic loops can change on the base of the achievement of the set temperature and the opening / closing of the branch of the circuit due to the electrothermal actuator.

However, the good performance of the variable flow system have some issues due to the dynamic adjustments of the differential pressures.

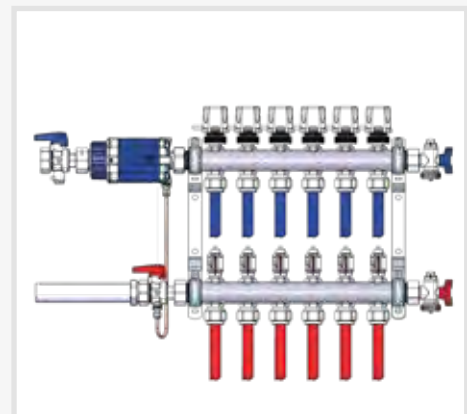
The MH valve eliminates these upstream adjustments of the distribution manifold.

Thanks to the easy installation and adjustment, acting on the adjustment knob and checking the flow level on the level indicators (flow meters) in each loop, the automatic balancing valve MH allows:

- to facilitate hydraulic balancing;
- eliminate pressure peaks by stabilizing the network;
- avoid the risks of noise due to the high speed of the fluid.

By using this valve, when a loop closes, the flow rate on the other loops remains constant.

The valve MH compensates any upstream hydraulic variations (e.g. changes in other collectors) keeping the outlet pressure constant (downstream) too.



WATTFLOW BP

Inclined-seat balancing valve with threaded connections for heating and cooling systems, complete with built-in flow meter for direct flow rate reading and mechanical memory of setting position. PN 10. Operating temperature range: -20÷100°C. Measuring accuracy $\pm 10\%$ of flow rate read. Brass body, EPDM seals, impact-resistant and temperature-resistant plastic flow meter. Can be installed in any position and suitable for water with glycol. Adjust with hex wrench.



Part Number	DN	Flow	Kvs	Qty/Box	Box/Carton
10010156	1"	5-50 l/min	5,5	1	1
10049587	1.1/4"	10-80 l/min	9,0	1	1
10049588	1.1/2"	15-120 l/min	13,0	1	1
10010162	2"	20-200 l/min	18,0	1	1

Dimensions at the end of the section.

4**STATIC BALANCING VALVES****iDROSET Series CF**

iDROSET Series CF is our brand-new static balancing and control valve with free nut connection from DN15 to DN50 for heating, cooling and domestic water distribution systems. Featuring new patented technology that allows instant setting and reading of the flow rate without special tools. The valve body is manufactured from brass and composite with an ergonomic shape that allows the valve to be deployed in a range of ways. A multi-functional hand wheel sets the flow rate. It has a nominal pressure of 16 Bar. Operating temperature range from -10°C to 110°C. Balancing turn down ratio 25:1. Fluids: water with glycol up to 50%.

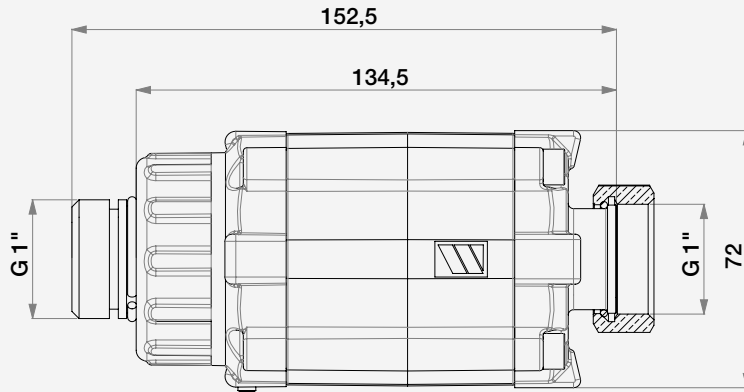


Part Number	DN	Flow	Kvs	Qty/Box	Box/Carton
PAP-S015	1/2"	35/700	1,7	1	1
PAP-S020	3/4"	35/700	1,7	1	1
PAP-M025	1"	50/1600	4,4	1	1
PAP-L032	1 1/4"	250/6000	14	1	1
PAP-L040	1 1/2"	250/6000	14	1	1
PAPXL050	2"	400/10000	25	1	1

Dimensions at the end of the section.

OVERALL DIMENSIONS

MH

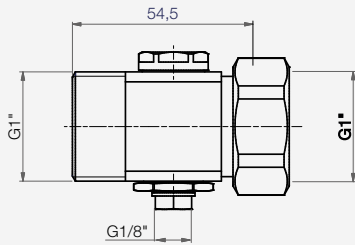


Accessories

AS-MH

Fitting

Part no. AS-MH00118

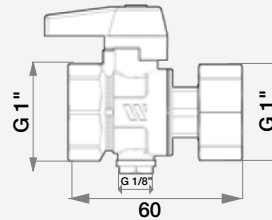


KH-MH

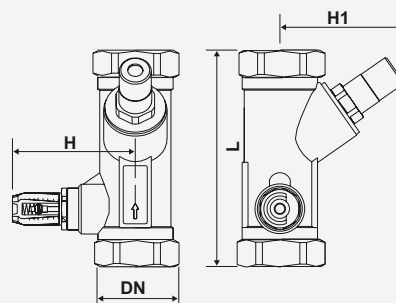
Shutoff ball valves

Part no. KH-MH001034 per 1"x3/4"

Part no. KH-MH001100 per 1"x1"



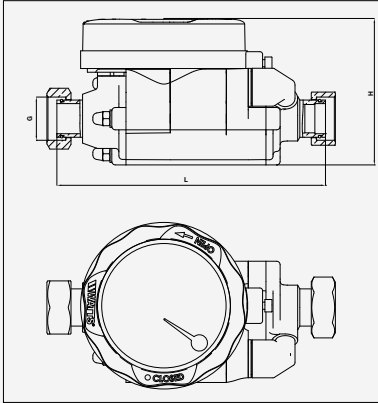
WATTFLOW BP



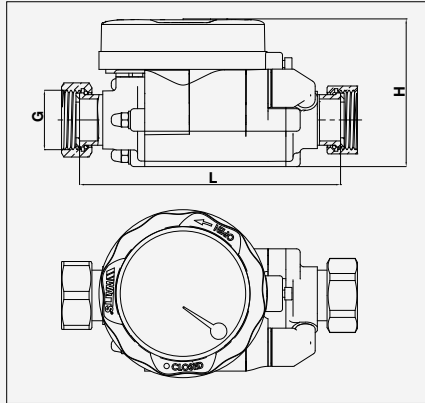
DN	L	H	H1
25	120	73	69
32	135	77	77
40	153	80	78
50	176	85	87

OVERALL DIMENSIONS

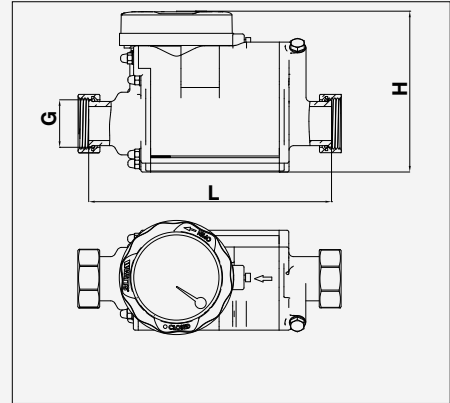
**iDROSET Series CF
1/2, 3/4"**



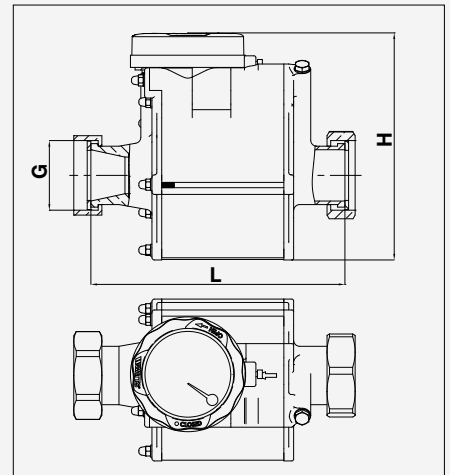
**iDROSET Series CF
1"**



**iDROSET Series CF
1 1/4, 1 1/2"**



**iDROSET Series CF
2"**



G	H	L
1/2"	83	152
3/4"	83	145
1"	83	146
1 1/4"	132,5	200
1 1/2"	132,5	198
2"	186	208