iDROSET® Series MH

Application guide

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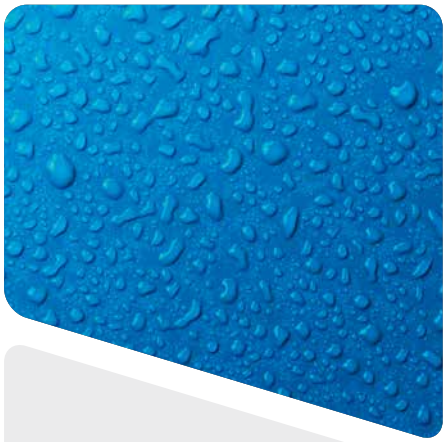

A complete system

Easy set-up

Energy saving and comfort

A new balancing solution for heating systems

Easy set up

Easy and time saving hydraulic balancing in 3 steps:
1 start up: unbalanced loops
2 set up the worst loop flow
3 set up all the other flows

Constant flow rate

iDROSET® Series MH willl maintain the pressure drop on the manifold constant, thus ensuring constant flow rate in each heating loop

Energy savings and comfort

- No oversupply of the individual heating circuits
- Response time reduction of radiant heating systems
- increased comfort thanks to optimum temperature distribution.

Watts supplies a complete and dynamically balanced system for heating applications. Our system is composed by:

Manifold HKV 2013A-VA

Pre-assembled stainless steel manifold unit:
- top return manifold with micrometric control and shut-off of the outlet;
- bottom flow manifold with flow meters (0-6 l/min) capable of controlling or shutting off the outlet;
- galvanised steel brackets complete with anti-vibration mountings.

Connections

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

ACTUATORS Series 22C, 22CX, 26LC

Compact electro thermal actuator with ON/OFF operation.
Self-extinguishing polymer cap.
M30x1.5 nickel-plated threaded brass ring-nut. Normally closed (NC). Normally open (NO).

Preliminary operations

- Verify that the circuits has been thoroughly flush out to remove any dirt, which may be in the system.
- Verify that all shut-off and regulation valves are completely open.
- Verify that the circuit is full and the static pressure is high enough to avoid cavitation and vacuum points.
- Verify that there is not air in the circuit.
- Proceed with other standard operations for starting up the system (direction of rotation of the pump, pressure in the expansion vessels, etc.)
- Set the pump (or pumps) in constant speed according to the maximum flow rate and maximum pump head needed. It is only needed to make the initial balancing of the circuit. After that, the pump should be set to self-adjusted mode operation.

Easy installation & balancing in 3 steps: an example

1. INSERT the gasket in the fitting or ball valve with 1/8" connection.
2. INSTALL the fitting/ball valve on the supply manifold.
3. FIX the ball valve on inlet pipe.
4. FASTEN the ball fitting on the inlet manifold.
5. INSTALL Series MH valve to the ball valve of the outlet pipe
6. …and to the manifold.
7. CONNECT the capillary tube to the fitting ball valve of the inlet pipe. **(STEP 1)**
8. START the pump/system and start balancing on the loop showing the lowest flow rate. **(STEP 2)**
9. SET the flows rates in the other loops by the standard balancing operation with control valve inserts. **(STEP 3)**

For further information with respect to the product, refer to the installation manual for product types Series MH

During the step 2, if the flow rate indicator doesn't move:
Option A: increase the speed pump to the maximum.
Option B: use the traditional setting: Open completely the MH valve Adjust the designed Dp according to the project in this way: Dp setting = 17 + 3,5 X number of turns (kPa) Example: 2 turns Dp setting = 17+3,5 X 2 = 24 (kPa)

Other products of the iDROSET family

Energy efficient operation

Static balancing device

Dynamic balancing device

During operation of a heating system, the working conditions change and require an ongoing re-adjustment to guarantee optimum and energy efficient operation. Therefore the system requires constant balancing of the individual loops which often consist of differences in length and diameter. This results in different pressures and flows. A static balancing device helps to adjust the system to the design point during the highest demand.

iDROSET® Series CF

Balancing and control valve with free nut connection for heating, cooling and domestic water distribution systems. New patented technology that allows to set and read instantly the flow rate on board without the requirement of special tools. Shut-off function. Block of the flow rate calibrated and memory of it through a red pointer.

iDROSET® Series Wattflow

Inclined-seat balancing valve with threaded connections for heating and cooling systems, complete with built-in flow meter for direct flow rate reading.

WATTS®

Photo by GT, il Giornale del Termoidraulico - Tecniche Nuove.

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MH-AG-IT-W-UK-04-20-Rev.2