

22-02423

The Auto Balancing Actuator is the latest Underfloor Heating Control innovation from Multipipe. The 22-02423 automatically balances the UFH circuit to eradicate system hot and cold spots and improve comfort whilst radically reducing the time required on site to setup the system.

Unlike conventional actuators, the new Auto Balancing Actuator performs the function of both thermal actuator and flow regulator, resulting in two functions in one unit. Complete with two remote sensors that are placed on the flow and return pipes from the manifold, the actuator constantly monitors the temperatures and will adjust the flow rate to maintain a delta of 7°C for the UFH circuit. This is the ideal temperature differential between the emitter flow and return pipes; thereby balancing and optimising system performance.



Features	Benefits
Fast actuator opening and closing times typically 30 seconds	Much quicker to respond than conventional actuators
Performs the function of both the thermal actuator & the flow regulator, resulting in two functions in one unit	Less system parts, Quicker to install, Potential lower overall system Cost
Very Low Power, less than 0.5W	Lower running costs than conventional actuators

Customer Benefits

Who	Benefits
Installer	Quick to install the system, Able to correctly balance retrofit systems where the pipe lengths are unknown
Property Occupant	Improved comfort, correctly working balanced system
UFH Supplier	Less user complaints and callouts due to product installed and balanced correctly

High accuracy operation

Multipipe Auto Balancing Actuator uses a high precision motor to move the valve pin flowingly and provide dynamically balance the flow through each loop.

The ABA can make very small movements of the valve actuator pin (only few microns!) which in practice guaranty finely alter the water flow rate. The temperature resolution of the clip on sensors allows the ABA to detect small temperature changes. If the heat source varies as some installations can, then the ABA will take an average reading. For example, when the heat source “cycles” are between 40°C and 42°C, in this case the ABA will average this cycle to 41°C.

Base Specification

Power Supply	22-23024: 230VAC 50/60 Hz. 22-02423: 24VAC / DC
Power consumption:	0.5W
Valve Open Time:	Typically, 30 seconds
Valve Close Time:	Typically, 30 seconds
Temperature Sensor Resolution:	0.1°C
Dimensions	H 93mm x W 38mm x D 54mm

Fit & Forget Installation

Installer just need to make 3 easy steps:

1. Connect the ABA to the return manifold and two clip on temperature sensors (to the flow pipe and to the return pipe).
2. Connect the ABA power cable to the Wiring Centre.
3. If there is a flow regulator fitted on the flow manifold this would need to be fully opened and then simply switch on the room thermostat.

That’s all. Fit and forget!

