

# 63C Series

Thermostatic mixing valve Aquamix for radiant panel heating systems

## Technical Data Sheet



## Description

The Aquamix thermostatic mixing valve, Series 63C, is offered with female threaded connections and 10 setting positions. The valve body is made of brass, nickel-plated, inside and out. The valve has a teflon coating inside which considerably reduces the amount of scaling caused by hard water. Each valve is provided with two mesh strainers which, when fitted to the hot water (+) and cold water (-) ports avoid debris entering the valve thereby protecting valve operation.



### 63C

#### AQUAMIX.

Thermostat mixing valve for radiant panel systems. With 10 set positions and fixed by-pass against over temperature. Setting range: 25±50°C. Maximum differential pressure: 2 bar.

Type	Part No.	DN	Kvs	Weight (g)
63C	6310C34	3/4" F	1.9	550
63C	6311C1	1" F	2.1	650

#### Technical features

Maximum temperature	110°C
Maximum pressure	10 bar
Maximum differential pressure	2 bar
N° of setting positions	10
Liquids which can be used	Water

#### Design features

Valve body and inner parts	1) Brass, nickel-plated on inside and outside CW617N 2) Internally coated with scale-preventing Teflon
Thermostatic element	With solid-state expansion
Spring	Stainless steel
Disc	Brass

## Application

The Aquamix valves are used to maintain a constant supply temperature to distribution headers for radiant panel heating systems. The setting range of the valves in the 63C series, allows for regulating the water temperature between 25±50°C with a tolerance of ± 2 °C.

## Operation

The operation is automatic. It is based on a heat-sensitive element inserted in the valve body, which, upon coming into contact with the mixed water regulates (with a proportional action) the hot water produced in the boiler and the return water from the radiant panels in accordance with the set temperature.

The valves have a bypass action across the cold water inlet and the mixed water outlet in order to avoid the risk of all the hot water produced by the boiler reaching the radiant panels in the case of failure of the thermostatic element.

However the fitting of a safety thermostat, to stop the pump, is strongly recommended to prevent dangerous overheating, e.g. by accidental tampering with the setting of the valves.

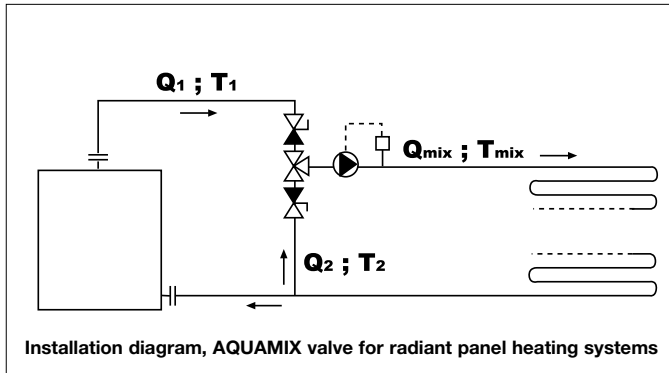
See charts for hydraulic flow rate and pressure drop characteristics of the valves.

## Setting

The valve setting, i.e. setting of the temperature of the mixed water feeding the radiant panel heating system, is obtained by manually turning the hand-wheel so that the number printed on the hand-wheel coincides with the reference mark embossed on the valve body. The numbers stamped on the hand-wheel correspond to the temperatures given in Table 1: the valve is factory-set using hot water at 60 °C and mains water at 25 °C.

To prevent tampering, the hand-wheel can be locked in the required set position as shown in figures 1 - 2 - 3.

The reliability of the Aquamix thermostatic mixing valves **Series 63C** is ensured by 100% testing of the production.



Tab.1

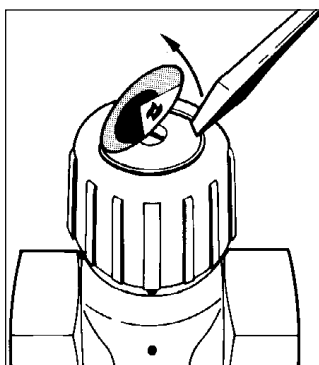
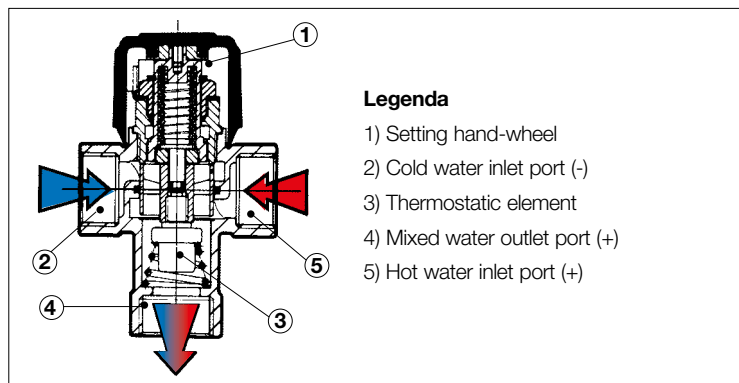
Position	1	2	3	4	5	6	7	8	9	10
Setting °C	25	27.8	30.5	33.3	36	38.9	41.7	44.4	47.2	50

## Operation

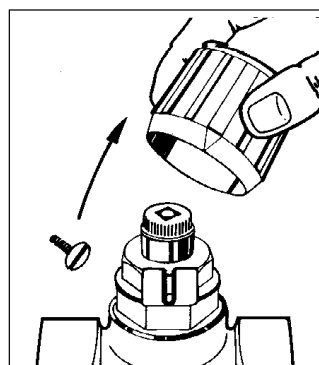
Choice of the **Aquamix** thermostatic mixing valves **Series 63C** depends on the nominal diameter of the connecting piping.

The valves can be installed in any position (horizontal or vertical).

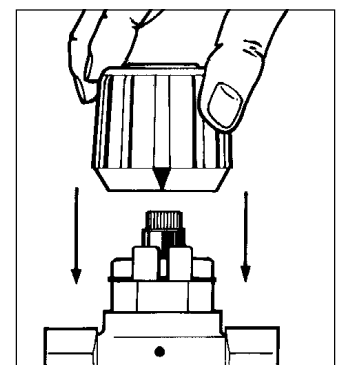
The valves will require periodic maintenance of the internal components (Fig.4) in order to remove any scaling, without use of solvents and without scratching the metal surfaces. Before maintenance, isolate inlets and outlets.



**Fig.1** Remove the label using a screwdriver.

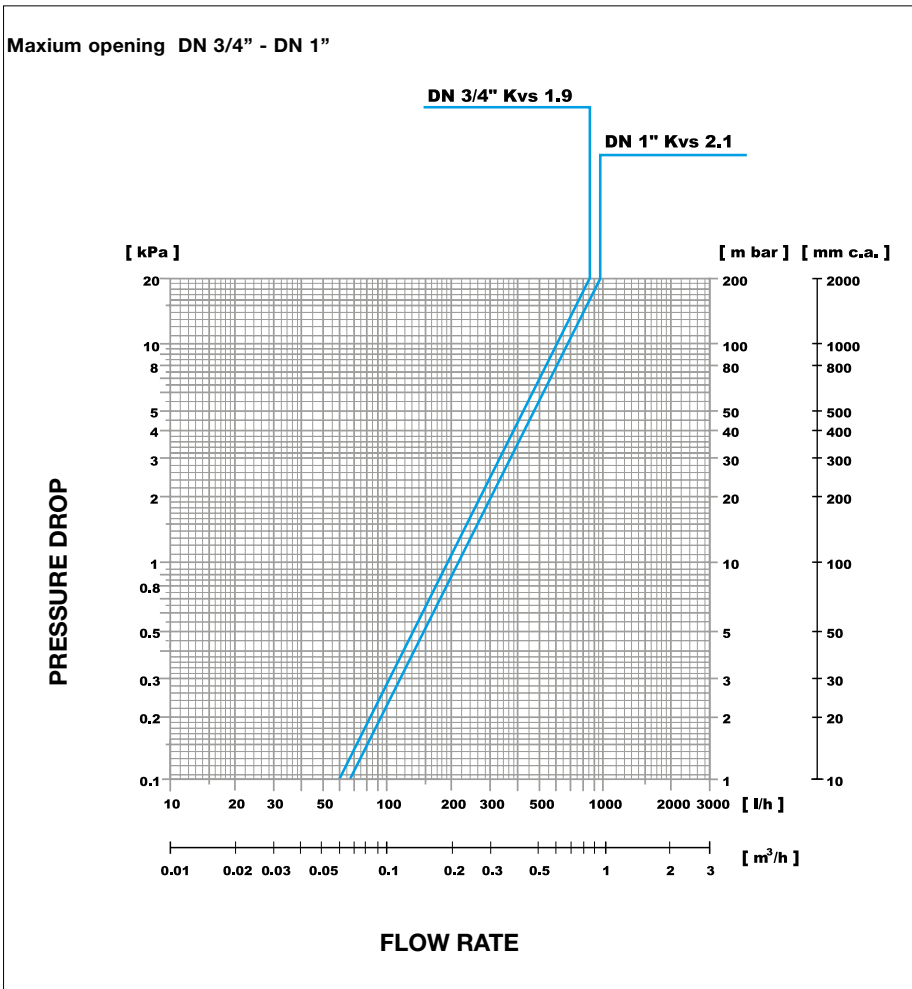


**Fig.2** Release the fixing screw and lift off the hand-wheel being careful not to turn the control spindle.



**Fig.3** Fit the hand-wheel back in place so that the V reference mark coincides with the embossed mark on the valve body. The hand-wheel is locked in this position.

# Charts

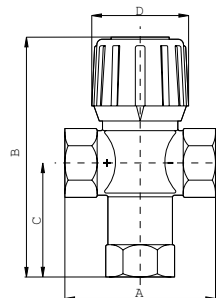


## Specification text

**Serie 63C** - AQUAMIX thermostatic mixing valve Series 63C – WATTS brand – with female threaded connections (DN 3/4" FF - 1" FF). Internally and externally nichel-plated CW617N brass body with anti-limescale internal teflon coating. Stainless steel springs. Fixed by-pass against overheating (anti-burn). Solid expansion heat-sensitive element. Pre-setting with 10 reference positions. Mesh strainers for fitting in the side ports. PN 10bar Max. differential pressure 2 bar. Temperature range: 32÷50°C.

## Overall dimensions (mm)

63C



DN	A	B	C	Ø
3/4"	70	107	52	45
1"	80	110	55	45

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