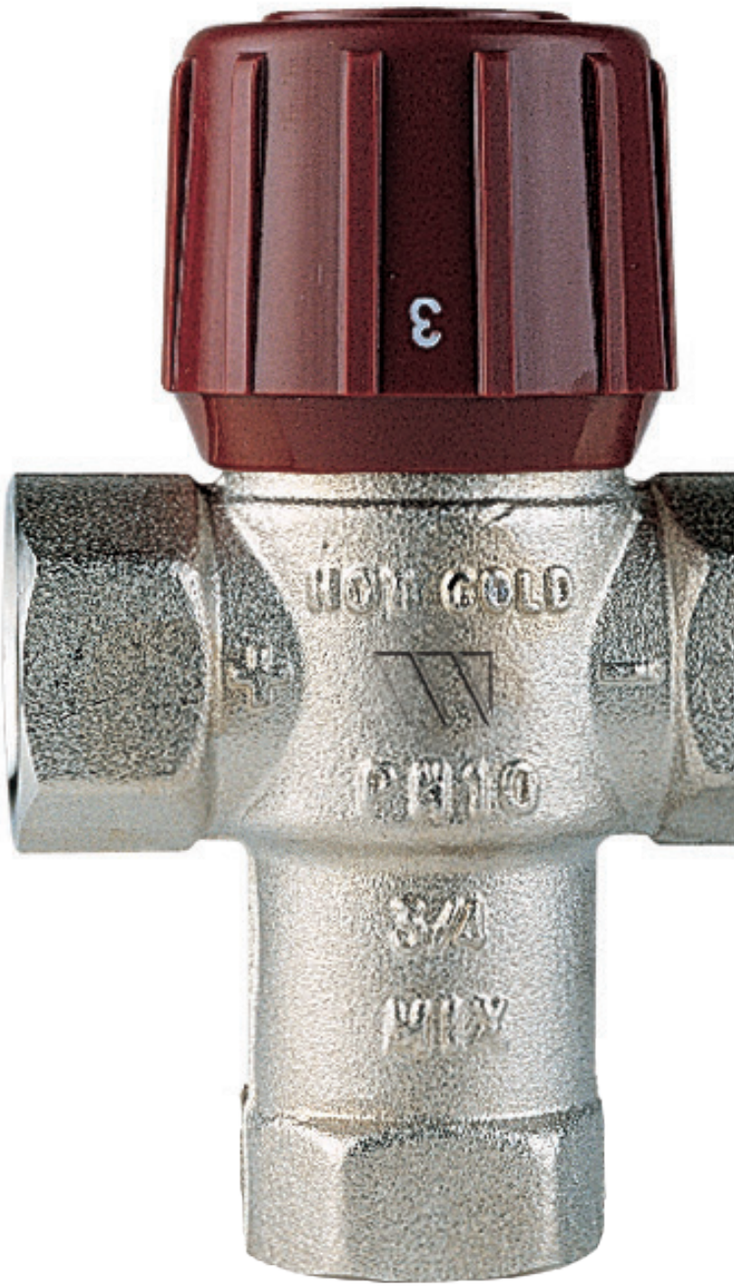
61C, 62C, 61CM Series

Aquamix thermostatic mixing valves

Technical Data Sheet



WattsIndustries.com

WATTS®

Description

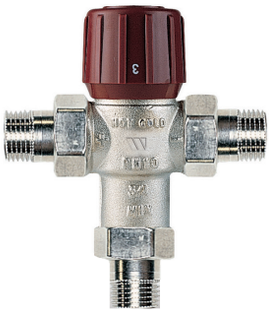
61C, 62C and **61CM Series** Aquamix thermostatic mixing valves are available in versions with male and female connections, and 4 setpoint positions. The valve body is made of brass, which is internally and externally nickel-plated and has an additional internal teflon coating to reduce the limescale build-up caused by hard water. Each valve is equipped with two mesh strainers, one in the hot water inlet port (+) and one in the cold water inlet port (-), to safeguard correct valve operation by preventing the entry of coarse debris.

61C

AQUAMIX.

Thermostatic mixing valve with 4 setpoint positions. Anti-scald safety. Setting range: 32-50°C. Max. differential pressure: 2 bar. Female connections.

Type	Part No.	DN	Kvs	Weight (g)
61C	6109C12	1/2”F	1.5	630
61C	6110C34	3/4”F	1.9	550
61C	6111C1	1”F	2.1	650



61CM

AQUAMIX.

Thermostatic mixing valve with 4 setpoint positions. Anti-scald safety. Setting range: 32-50°C. Max. differential pressure: 2 bar. Male union connections.

Type	Part No.	DN	Kvs	Weight (g)
61CM	61CM12	1/2”M	1.5	710
61CM	61CM34	3/4”M	1.9	640
61CM	61CM1	1”M	2.1	730

62C

AQUAMIX.

Thermostatic mixing valve with 4 setpoint positions. Anti-scald safety. Setting range: 42-60°C. Max. differential pressure: 2 bar. Female connections.

Type	Part No.	DN	Kvs	Weight (g)
62C	6209C12	1/2”F	1.5	630
62C	6210C34	3/4”F	1.9	550
62C	6211C1	1”F	2.1	650

Technical features	
Maximum primary circuit temperature	100°C
Maximum operating pressure	10 bar
Maximum differential pressure	2 bar
No. of setpoint positions	4
Anti-scald safety	BSI 1415
Usable fluids	Water

Design characteristics	
Valve body	a) internally and externally nickel-plated brass b) internal teflon coating to prevent limescale build-up
Thermostatic element	Solid expansion
Springs	Stainless steel
Disc	Brass

Application

Aquamix valves are used in domestic hot water distribution systems to ensure that the temperature of the mixed water remains constant irrespective of changes in the temperature of the hot water from the heat exchanger. The setting ranges of **61C, 62C** and **61CM Series** valves allow the hot water produced in the heat exchanger (whether on-demand or storage type) to be mixed directly with cold water from the mains, by setting the desired temperature.

Operation

Operation is automatic and takes place by means of a heat-sensitive element in the valve body, which expands or contracts on contact with the mixed water, thus proportionally regulating the inlet of hot and cold water from the side ports according to the temperature setting. If a failure prevents the supply of cold water, a thermal stop device in the valve closes the disc to prevent the entry of hot water. This prevents the delivery of unmixed water, thereby eliminating the risk of scalding, as required by UNI EN 1111. The fluid flow rate and pressure drop of the valves can be determined from the appropriate flow curves.

Setting

The valve, and hence the mixed water temperature, is set manually by turning the graduated handwheel until the number on the handwheel lines up with the reference mark on the valve body. The numbers marked on the handwheel correspond to the temperatures indicated in**Table 1**: the valve is factory-set using hot water at 70°C and mains water at 15°C. Variation in temperature of the water in the primary circuit causes a deviation (max.±2°C) from the set nominal values **Table 2**: likewise a variation in pressure between P1 and P2 (see installation diagrams) exceeding 2 bar could cause differences. You are therefore advised to equip the circuit with a balancing valve (**FO-BV Series**) at the cold water inlet port so as to create the same drop in pressure as occurs when the water flows through the heat exchanger. To prevent tampering, the handwheel can be locked in the required setpoint position as shown in **Fig.1-2-3**. The reliability of **Aquamix 61C, 62C and 61CM Series** thermostatic mixing valves is guaranteed by the fact that every single product undergoes testing.

Tab.1

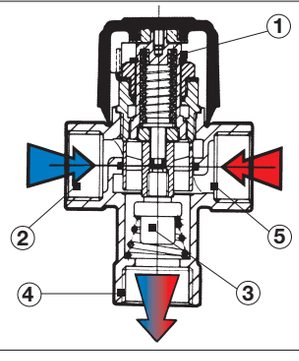
Type	1	2	3	4
61C-61CM	32°	38°	44°	50°
62C	42°	48°	54°	60°

Tab.2

Primary circuit water	Setpoint positions			
°C	1	2	3	4
50	30	36	42	48
60	31	37	43	49
70	32	38	44	50
80	33	39	45	51
90	34	40	46	52

Installation

Aquamix **61C, 62C and 61CM Series** thermostatic mixing valves are selected on the basis of the DN of the connection pipe. The valves can be installed on iron pipes (**61C and 62C Series**), copper pipes and plastic pipes (**61CM Series**) in any position (vertical or horizontal). The nickel-plating and internal teflon coating of the valve body significantly reduce and delay the build-up of limescale caused by hard water. To protect the valve disc system, fit the two mesh strainers (supplied) in the hot and cold water inlet ports.



Key

1) Setting handwheel.
2) Cold water inlet port (-).
3) Thermostatic element.
4) Mixed water outlet port (mix).
5) Hot water inlet port (+).

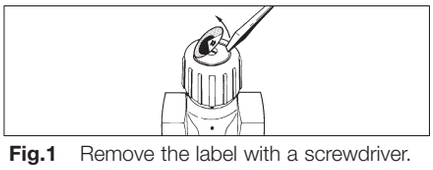


Fig.1 Remove the label with a screwdriver.

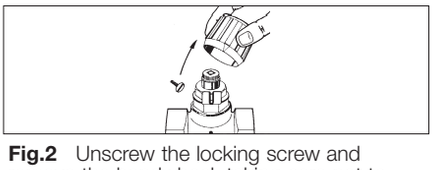


Fig.2 Unscrew the locking screw and remove the handwheel, taking care not to turn the control stem, and taking note of the corresponding setpoint for subsequent refitting.

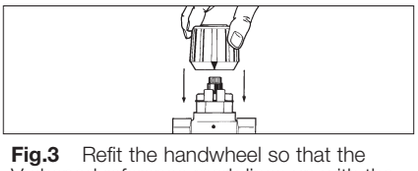
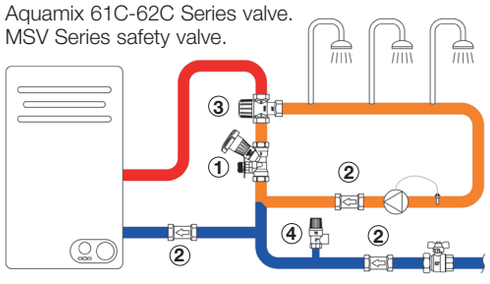


Fig.3 Refit the handwheel so that the V-shaped reference mark lines up with the mark on the valve body. In this position, the handwheel is locked.

Aquamix installation diagrams

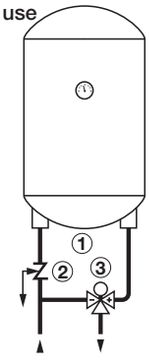
Recirculating domestic water systems

1) FO-BV Series balancing valve.
2) Check valve.
3) Aquamix 61C-62C Series valve.
4) MSV Series safety valve.



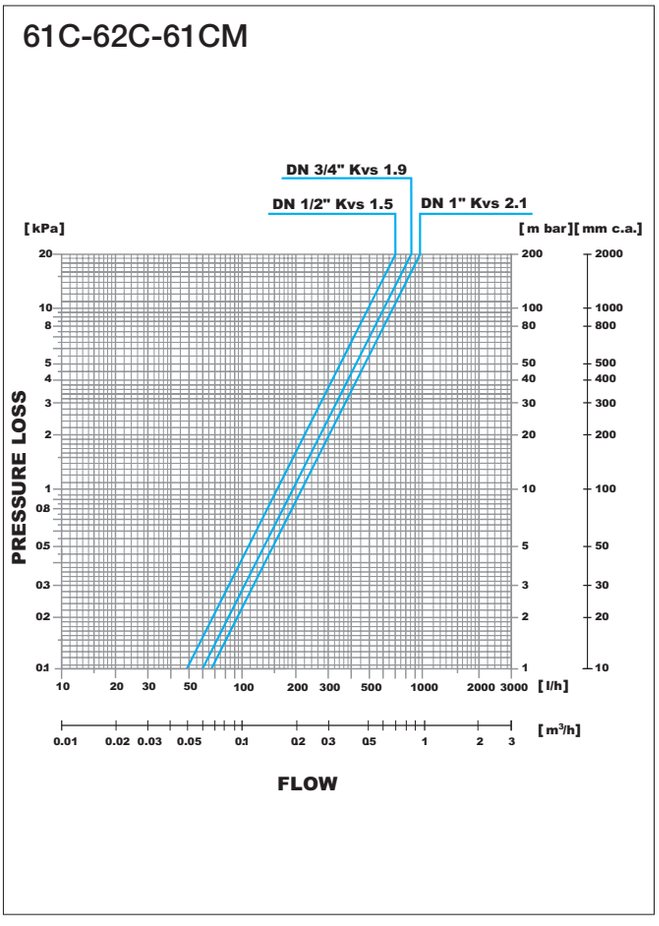
Water heating system for domestic use

1) Water heater.
2) Safety and check valve.
3) Aquamix valve.



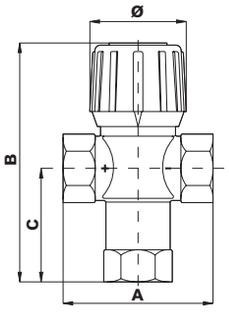
Flow curve

61C-62C-61CM



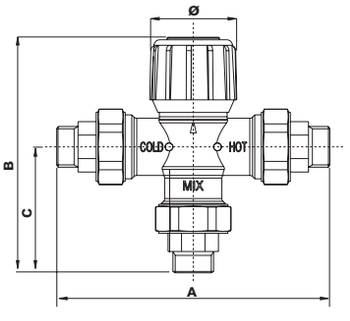
Overall dimensions (mm)

61C-62C



DN	A	B	C	Ø
1/2"	70	107	52	45
3/4"	70	107	52	45
1"	80	110	52	45

61CM



DN	A	B	C	Ø
1/2"	132	122	62	45
3/4"	136	123	66	45
1"	150	130	72	45

Specification text

Series 61C - AQUAMIX thermostatic mixing valve **Series 61C** – WATTS brand – with female threaded connections (DN 1/2"-3/4"-1"). Internally and externally nickel-plated CW617N brass body with anti-limescale internal teflon coating. Stainless steel springs. Anti-scald safety. Solid expansion heat-sensitive element. Continuous pre-setting with 4 reference positions. Mesh strainers for fitting in the side ports. PN 10bar Max. differential pressure 2 bar Temperature range: 32-50°C.

Series 61CM - AQUAMIX thermostatic mixing valve **Series 61CM** – WATTS brand – with male union connections (DN 1/2"-3/4"-1"). Internally and externally nickel-plated CW617N brass body with anti-limescale internal teflon coating. Stainless steel springs. Anti-scald safety. Solid expansion heat-sensitive element. Continuous pre-setting with 4 reference positions. Mesh strainers for fitting in the side ports. PN 10 bar. Max. differential pressure 2 bar. Temperature range: 32-50°C.

Series 62C - AQUAMIX thermostatic mixing valve **Series 62C** – WATTS brand – with female threaded connections (DN 1/2"-3/4"-1"). Internally and externally nickel-plated CW617N brass body with anti-limescale internal teflon coating. Stainless steel springs. Anti-scald safety. Solid expansion heat-sensitive element. Continuous pre-setting with 4 reference positions. Mesh strainers for fitting in the side ports. PN 10bar Max. differential pressure 2 bar. Temperature range: 42-60°C.

Watts Industries Italia S.r.l.
Via Brenno, 21 • 20853 Biassono (MB) • Italy
Tel. +39 039 4986.1 • Fax +39 039 4986.222
infowattsitalia@wattswater.com • www.wattsindustries.com