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4738G

THERMOSTATIC MIXER

FOR SANITARY SYSTEMS - HIGH DELIVERY RATES



DESCRIPTION

This thermostatic mixer for sanitary systems **allows instantaneous mixing of the incoming fluids, to guarantee the stability of the value set for the outlet fluid temperature**, not only when the delivery rate required by the different utilities varies, but also when the pressure and temperature conditions of the primary fluids change.

The mixing function is carried out by the wax thermostatic element, which undergoes a change in volume when it comes into contact with the water, to determine the correct supply of incoming hot and cold water and, consequently, adjustment of the outgoing water temperature to the set value.

Field of application: Finds application in regulating and controlling the distribution temperature of the sanitary system coming from the heat generator/storage heater.
Thermostatic mixer Art. 4738G can be used to control the delivery temperature of systems that **require high delivery rates**, such as centralized systems.

To ensure the best performance, the mixer must be guaranteed a minimum delivery rate (for further details see the "TECHNICAL SPECIFICATIONS" section of this technical data sheet).

ADVANTAGES / STRENGTHS

- Mixer body is made of CW625N anti-dezincification brass.
- Low thermal inertia thermostatic sensor: reacts quickly to variable input conditions, so offers very short response times.
- Equipped with anti-scald function.
- Can be installed in all positions.
- Guarantees energy savings, greater comfort in the use of domestic hot water and eliminates the risk of burns caused by excessive delivery temperatures.

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PRODUCT RANGE

Art.	Description	Code	Connection fittings
4738G 	Thermostatic mixer.	320 0046	G 1”1/4 M (ISO 228)
		320 0047	G 1”1/2 M (ISO 228)
		320 0049	G 2" M (ISO 228)
		320 0051	G 2"1/2 M (ISO 228)

Art.	Description	Code	Connection fittings
1521CPKIT 	Tang kit 3 pcs.	150 1013	G 1”1/4 F x G 1” M (ISO 228)
		150 1014	G 1”1/2 F x G 1”1/4 M (ISO 228)
		150 1015	G 2" F x G 1”1/2 M (ISO 228)
		150 1016	G 2"1/2 F x G 2” M (ISO 228)

CONSTRUCTION SPECIFICATIONS

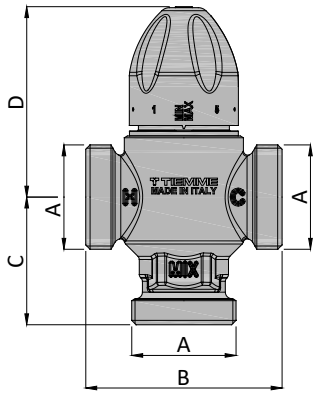
- Body: **CW625N** Anti-dezincification brass
- Internal parts: CW617N Brass
- O-ring seals: EPDM
- Adjustment handwheel: PA
- Spring: Stainless steel
- Handwheel fixing screw: AISI 304 stainless steel
- Thermosensitive element: Wax
- Threads: ISO 228

TECHNICAL SPECIFICATIONS

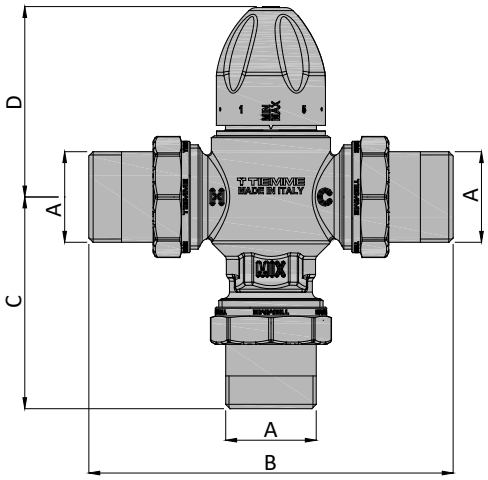
- Maximum static pressure: 10 bar
- Maximum dynamic pressure: 5 bar
- Maximum displacement between inlet pressures: 2:1
- Maximum inlet temperature: +90 °C
- Minimum input/output ΔT: 10 °C
- Temperature adjustment range: +30 ÷ +65 °C
- Accuracy: ±2 °C
- Minimum delivery rate for correct operation: 12 l/min. (1”1/4)
  15 l/min. (1”1/2)
  25 l/min. (2”)
  30 l/min. (2”1/2)
- Fluid compatibility: Drinking water

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DIMENSIONAL SPECIFICATIONS



Thermostatic mixer					
Art.	**Code**	**A**	**B**	**C**	**D**
4738G	**320 0046**	G 1” 1/4 M	89	58	87 ÷ 95
	320 0047	G 1” 1/2 M	90	58.5	87 ÷ 95
	320 0049	G 2” M	123	80.5	93 ÷ 100
	320 0051	G 2” 1/2 M	123	81	93 ÷ 100



Thermostatic mixer with couplings					
Art.	**Code**	**A**	**B**	**C**	**D**
4738G + 1521CPKIT	**320 0046 + 150 1013**	G 1” M	158	92.5	87 ÷ 95
	320 0047 + 150 1014	G 1” 1/4 M	167	97	87 ÷ 95
	320 0049 + 150 1015	G 1” 1/2 M	203	120.5	93 ÷ 100
	320 0051 + 150 1016	G 2” M	218	128.5	93 ÷ 100

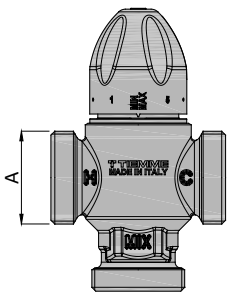
Dimensions in mm

HYDRAULIC SPECIFICATIONS

Diagram 1: Delivery rate/pressure drops.



Measurement A	Kv (m^3/h)
1”1/4	5.2
1”1/2	6.0
2”	11.2
2”1/2	12.0



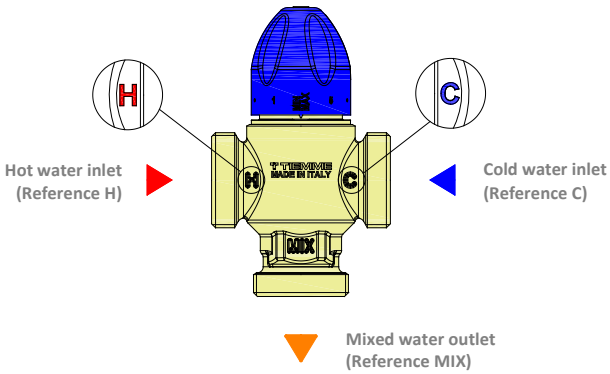
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INSTALLATION

- Check that the boiler is turned off and the water inside the system at room temperature.

Before carrying out any inspection, cleaning or maintenance operation, turn off the generator, close the shut-off valves and wait for the fluid to cool down.

- Remove any possible dirt due to the construction of the system.
- In the case of very hard or aggressive water, we recommended carrying out water treatment before the inlet of the thermostatic mixer.
- The thermostatic mixer can be installed in all positions, without distinction.
- Provide ball shut-off valves upstream and downstream of the thermostatic mixer.
- Avoid differences between the supply pressures of the hot and cold primary fluids. Devices with significant pressure drops (e.g. filters) must not be placed on one of the supply branches of the thermostatic mixer, but on the mains network portion.
- Provide suitable filters upstream of the system.
- Comply with the correct installation direction of the mixer connections, as indicated below:



ADJUSTING THE MIXER: To adjust the outlet temperature of the mixer, simply turn the knob with the graduated scale (for temperatures refer to the table below).

	Control knob position						
Measurement	**Min**	**1**	**2**	**3**	**4**	**5**	**Max.**
1”1/4	26 °C	30 °C	44 °C	51 °C	58 °C	65 °C	68 °C
1”1/2	26 °C	30 °C	44 °C	51 °C	58 °C	65 °C	68 °C
2”	25 °C	30 °C	38 °C	46 °C	55 °C	65 °C	69 °C
2”1/2	25 °C	30 °C	38 °C	46 °C	55 °C	65 °C	69 °C

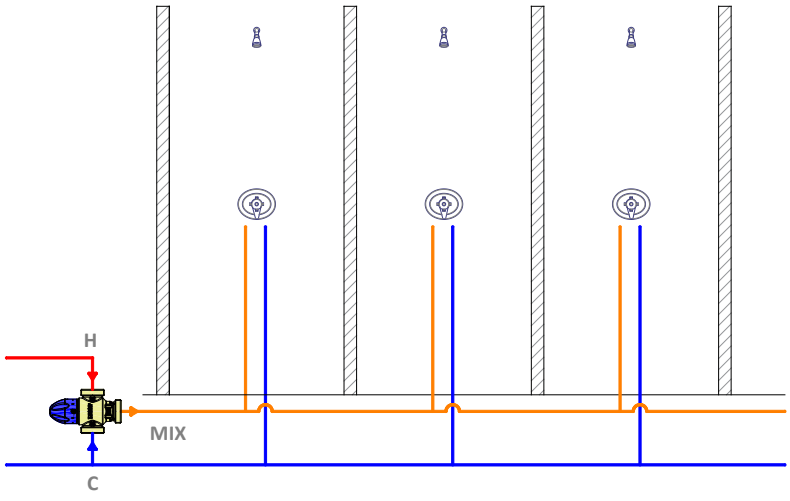
Reference values: Hot water inlet temperature: 69 °C. Cold water inlet temperature: 15 °C. Hot and cold water inlet pressure: 3 bar.

For safety reasons, we recommend adjusting the temperature of the mixed water sent to the utilities to values no greater than 50 °C

WATER TEMPERATURES ABOVE 50 °C CAN CAUSE SERIOUS BURNS.
DURING INSTALLATION AND MAINTENANCE OF THE THERMOSTATIC MIXER, ADOPT THE NECESSARY PRECAUTIONS TO ENSURE THAT SUCH TEMPERATURES DO NOT POSE A THREAT TO PEOPLE.

TIEMME RACCORDERIE S.p.A. will not be held responsible for any failures and/or accidents resulting from failure to comply with these instructions and/or from improper use of the system. The information given does not exempt the user from scrupulously following the regulations and good technical standards that are currently in force.

EXAMPLES OF INSTALLATION



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MAINTENANCE

Under normal operating conditions the thermostatic mixer requires no maintenance.
We recommend periodically (at least annually) checking the correct operation of the system, in particular:
- Inspect and clean the filters installed upstream of the system.

ITEM SPECIFICATIONS

Art. 4738G

Adjustable thermostatic mixer for sanitary systems, made up of: CW625N anti-dezincification brass body, EPDM o-ring seal, adjustment handwheel in PA, AISI 304 stainless steel handwheel fixing screw, stainless steel spring, temperature sensitive wax element, ISO 228 threads. Maximum static pressure 10 bar, maximum dynamic pressure 5 bar, maximum displacement between inlet pressures 2:1, maximum inlet temperature +90 °C, minimum ΔT inlet/outlet 10 °C, temperature adjustment range +30 ÷ +65 °C, accuracy ± 2 ° C, minimum delivery rate for correct operation 12 l/min. (1”1/4) - 15 l/min. (1”1/2) - 25 l/min. (2”) - 30 l/min. (2”1/2), drinking water fluid compatibility.
Available sizes G 1”1/4 ÷ G 2”1/2.

CERTIFICATIONS

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