

# ULTRAMIX® HP

## High Protection

High productivity thermostatic mixing valve  
anti-vandalism, lockable and inviolable

### Technical data sheet



## Description

The thermostatic mixing valve ULTRAMIX® "HP" has the same characteristics than the ULTRAMIX®, but it is equipped with anti-vandalism safety device.

Thermostatic mixing valve specifically conceived for the collective applications where the risks of deterioration are high. The mechanism and its adjustment are protected by a metal frontage made inviolable by a specific high protection lock.

- Continuous PROTECTION AGAINST LEGIONELLA.
- SCALD PROTECTION: the thermostatic mixing valve cuts off instantly if there is a shutdown of the cold or hot water supply.
- MAXIMUM TEMPERATURE LIMITATION adjustable and lockable.
- LIMITED MAINTENANCE: no friction from moving metal parts means excellent resistance to scale and remarkable longevity.
- BIMETALLIC STRIP TECHNOLOGY: exceptional qualities of regulation and resistance to the scale (crucial factor for safety).
- SIMPLE AND EASY MAINTENANCE: removal cartridge without dismantling the thermostatic mixing valve, strainers and integrated check valves accessible directly on the cartridge.
- ADJUSTMENT PRECISION and COMFORT of the temperature stability with low and high flow rates.
- GUARANTEE: thermostatic mixing valve and cartridge guaranteed 5 years.



Calculation software access:  
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## ULTRAMIX® high protection

High protection thermostatic mixing valve.

Connect.	Flow (l/min)	Setting range	Finish	Points of use	Part number	Weight (kg)
M 3/4"	Min. 5 – Max. 56	10/50°C	Chrome plated	1 to 7	22T/X91CHP	2,6
M 3/4"	Min. 5 – Max. 80	10/50°C	Chrome plated	1 to 10	22T/X92CHP	2,6
M 1"	Min. 5 – Max. 120	10/50°C	Chrome plated	1 to 15	22T/X93CHP	3,7
M 1 1/4"	Min. 5 – Max. 175	10/50°C	Chrome plated	1 to 21	22T/X94CHP	5,3
M 1 1/2"	Min. 8 – Max. 260	10/50°C	Chrome plated	1 to 32	22T/X95CHP	8,7
M 2"	Min. 8 – Max. 400	10/50°C	Chrome plated	1 to 50	22T/X96CHP	10,8

Standard gradations: 10/50°C, on request 30/70°C.

\* For information - please take into account the number of taps connected to the same network and used simultaneously.

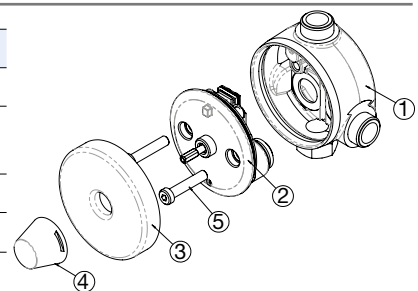
## Technical features

Technical features	
Maximum static pressure	10 bar
Maximum dynamic pressure	6 bar
Operating pressure	2 - 4 bar
Minimum operating pressure	1 bar
Maxi. hot temperature supply	85°C
Flow mini.	5 l/min (8 l/min models 1 1/2" and 2")
Flow max.	56, 80, 120, 175, 260, 400 l/min, depending the model
Minimum temperature variation between inlets	5°C
Maximum pressure variation between inlets	1,5 bar

\* differential minimum hot/mix temperature must be > 10°C.

## Nomenclature and materials

N°	Designation	Materials	EURO
1	Body	Brass	CB770S
2	Cartridge (10/50°C)	Brass + stainless steel + EPDM + covered steel	
3	High protection cover	Brass + nickel and chrome plated	CW507L
4	Central lock	Brass + nickel and chrome plated	CW612N
5	Screw	Stainless steel	1.4310 (AISI 301/302)



## Installation

The hot water has to be connected on the left side and the cold water on the right side and connect the mixed water outlet. Provide an accessible shut-off valve on each pipe. Rinse pipes with the supplied kit and turn on the thermostatic mixing valve. Adjust the temperature. Please, refer to the complete instructions supplied with the thermostatic mixing valve or on [wattswater.eu](http://wattswater.eu).

## Setting

Mixed water temperature adjustment: this adjustment is done autonomously without the loop circulation pump.

1. Stop the loop circulation pump.
2. Close the pump isolation valves.
3. Open sufficient points of use on the mixed water circuit to obtain the minimum flow of the thermostatic mixing valve.
4. Turn the thermostatic mixing valve axis control shaft to reduce or increase the mixed water temperature.
5. Once the required temperature is obtained, replace the control knob.

## Against legionella answer

Thanks to the ULTRAMIX® High Protection there is a solution against legionella:

- You also can by putting the cartridge in position "rinsing" i.e. turned over cartridge, fixed at back, (see simple procedure and the rinsing kit delivered with the thermostatic mixing valve): proceed to a thermal "shock" with more 70°C, without risk to damage the thermostatic mechanism prematurely, because is not any more in contact with water.

## Replacement cartridges ULTRAMIX® HP

The thermostatic mechanisms are independent from the other parts of the thermostatic mixing valves.

This modular system, facilitates the first start-up and the maintenance (possibility of cartridge exchange).

Any installation defect is immediately detected and allows a quick compliance.

All Eurotherm "cartridges" of ULTRAMIX®, high productivity thermostatic mixing valve, have stainless steel filters and check valves NF approved.

HP thermostatic mixing valves can receive replacement cartridges with a setting range of 30/70°C.



For mixing valve type	Flow (l/min)	Setting range	Part number	Setting range	Part number
TX91CHP	Min. 5 – Max. 56	10/50°C	22TX1*	30/70°C	22TX137*
TX92CHP	Min. 5 – Max. 80	10/50°C	22TX2*	30/70°C	22TX237*
TX93CHP	Min. 5 – Max. 120	10/50°C	22TX3*	30/70°C	22TX337*
TX94CHP	Min. 5 – Max. 175	10/50°C	22TX4*	30/70°C	22TX437*
TX95CHP	Min. 8 – Max. 260	10/50°C	22TX5*	30/70°C	22TX537*
TX96CHP	Min. 8 – Max. 400	10/50°C	22TX6*	30/70°C	22TX637*

\* For reversed cartridges add "IN" to the article code, for installations requiring a higher flow rate, the TX1 and TX2 cartridges as well as TX137 and TX237 are compatible and interchangeable.

## High Protection Kit

Allows to transform the ULTRAMIX® thermostatic mixing valves (all temperature setting, chrome plated, epoxy) into a high protection thermostatic mixing valve.

The kit includes: chrome plated metal frontage, high protection lock and key for dito.



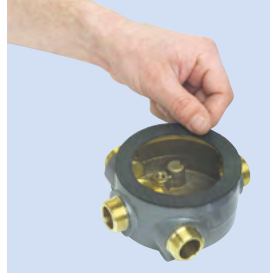
For mixing valve type	Part number
TX91, TX92, old range 9200	22TB120007
TX93, old range 9300	22TB120008
TX94, old range 9400	22TB120009
TX95, old range 9500	22TB120010
TX96, old range 9600	22TB120011

# Maintenance

WATTS INDUSTRIES recommends to minima, the installation of a thermometer of control of the temperature on the mixed water piping and one on the return of loop, and that this temperature is checked at least once a month under the normal conditions of operation. This thermometer must be installed at a distance from at least 1 meter of the thermostatic mixing valve. The rinsing kit is delivered with the thermostatic mixing valve and allows to facilitate the intervention in case of preventive or curative treatment.



Take off the knob, cover, and screw. Remove the cover/cartridge from its casing.



Place the flat washer (included in package) on the device's neck.



Place the cover/cartridge unit upside down on the device and flat washers.



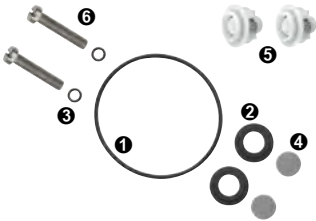
Tighten the temporary screws (included the package). The valves act now as a "by-pass".

The principle of compact mechanism in the form of interchangeable cartridge allows a handing-over under operation of the thermostatic mixing valves in record time. This great simplicity of maintenance makes it possible to utilize a person without particular qualification and not to immobilize an installation more few minutes, so much the exchange of the mechanism is fast. Moreover, the body of the thermostatic mixing valve is never dismantled of the installation.

## Maintenance kit for ULTRAMIX® HP cartridge

This kit includes all the usual wearing parts:

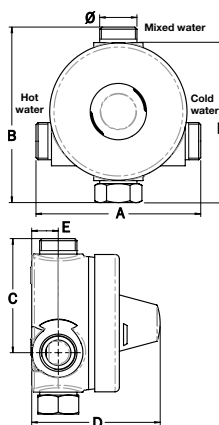
the cover-cartridge gasket ❶, 2 filter-support (elastomer) ❷, gaskets for cover screws ❸, 2 stainless steel strainers ❹, the check valve units and assembled check valve carriers ❺ and the cover screws ❻.



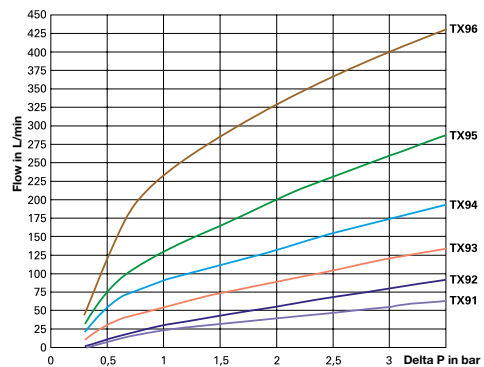
For cartridge type	Part number complete kit	Part number simplified kit
TX1 and TX2	22TB120002	22TB120022 (without cover screws)
TX3	22TB120003	22TB120023 (without cover screws)
TX4	22TB120004	22TB120024 (without cover screws)
TX5	22TB120005	22TB120025 (without cover screws)
TX6	22TB120006	22TB120026 (without cover screws)

## Sizing (mm)

Model	TX91	TX92	TX93	TX94	TX95	TX96
A (mm)	117	117	144	176	218	242
B (mm)	124,5	124,5	147,5	170	196,5	220
C (mm)	81	81	94.5	111,5	129	144
D (mm)	91,2	91,2	97	114	129	138,5
E (mm)	19	19	23,2	24	32	35,5
F (mm)	97,5	97,5	115	145	175	196
diameter	3/4"	3/4"	1"	1"1/4	1"1/2	2"
weight (kg)	2,6	2,6	3,7	5,3	8,7	10,8



## Operating



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