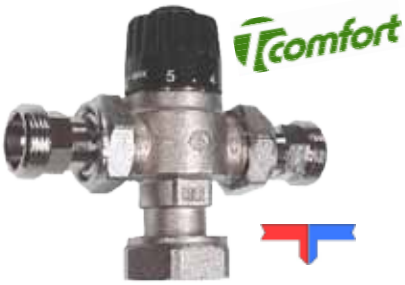
THERMOSTATIC MIXING VALVE WITH CENTRAL MIX



art. **P09**

art. **P10 • P11**

art. **V17**

Description

Thermostatic mixing valves Barberi ***T-Comfort*** Series are devices with mixed water on the mid-port and are used to regulate the water temperature. They are used in sanitary water plants, heating circuits, in heating plant, in heat generators (hang- wall boilers, wood boilers, heating pumps) and industrial water plants. Their purpose is to maintain constant the mixed water temperature of the utility even when temperature and inlet pressure could vary at the hot and cold water inlets.
These valves can be provided with inlet connections with or without check insert inside and check insert plus filter inside.
If they shall be directly assembled to a pump, it can be considered to assemble the valves with running nut on the mid port. (art. ref.P09).

Product range

art. **P09**	Thermostatic mixing valve with pump connection - KV2,3 - 30-65°C - Anti-scald - KV2,3 - 30÷65°C
art. **P10**	Thermostatic mixing valve for hydro-thermal- sanitary systems - Anti-scald - KV1,8 - 30÷65°C
art. **P11**	Thermostatic mixing valve for hydro-thermal- sanitary systems - Anti-scald - KV2,3 - 30÷65°C
art. **V17**	Thermostatic mixing valve for hydro-thermal- sanitary systems - Anti-scald - KV3,5 - 30÷65°C

Features

Regulation range: **30÷65 °C**
Max working temperature: **90 °C**
Accuracy: **±2 °C**
Fixed MIX temperature: **40 °C**
Reference of working condition: T hot = **70 °C**
T cold = **15 °C**
Pressure hot and cold = **3 bar**
Max working pressure: **10 bar**
Max.working pressure drop accepted: **2 bar**
Max difference between the incoming pressure (H-C or C-H): **4bar**
Flow coefficient: art. **P10** = **KV 1,8**
art. **P09 - P11** = **KV 2,3**
art. **V17** = **KV 3,5**
Connections to circuits : **threaded connections ISO228/1**
Suitable fluids : **water for heating plants, glycoled water(max 30%), sanitary water**
Standard: **EN1111 - EN1287 - EN15092**

Materials

Art. **P09 - P10 - P11 - V17**
Valve's body: **Brass UNI EN 12165 CW602N**
Brass UNI EN 1982 CB753S(V17)
Gaskets: **EPDM**
Handle: **ABS**

Art. **Y77** (connection with the possibility of inside check valve and filter)
Valve's body: **Brass UNI EN 12164 CW602N**
Check valve: **POM**
Gaskets: **EPDM, Fiber**

Art. **P93** (fitting)
Body: **Brass UNI EN 12165 CW617N**
Gaskets: **EPDM**

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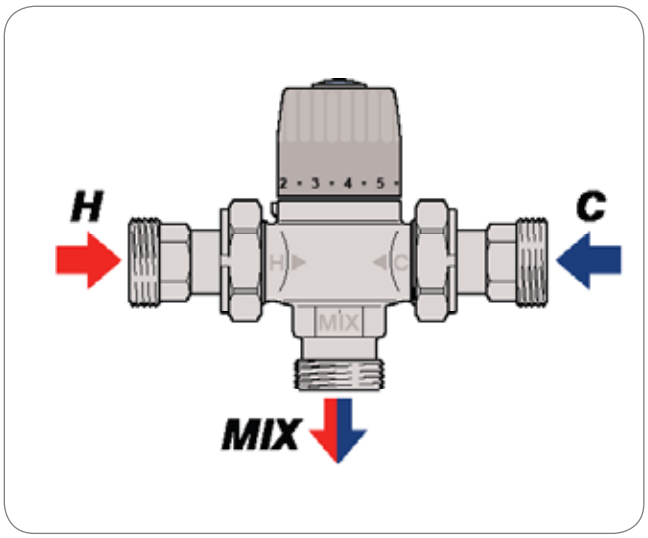
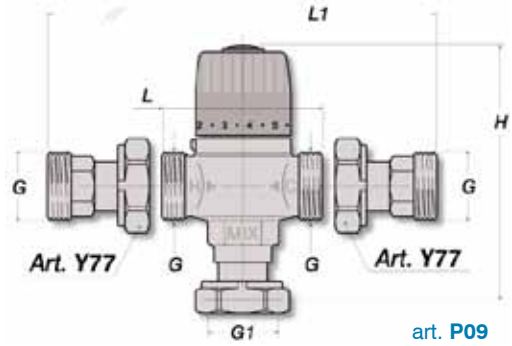
THERMOSTATIC MIXING VALVE WITH CENTRAL MIX

Working



The thermostatic mixing valve ***T-comfort*** mixes hot and cold water inlets whilst maintaining constant the set mixed on the outlet.This thanks to the thermosensitive element in the valve that tautens or expands according to any temperature and pressure's variation, thus influencing the obturator which controls the cold and hot water inlets. If there's any fail in the cold water inlet, the thermostatic valve ***T-comfort*** acts as safety device (according to ***EN1111*** for P09, P10, P11), closing immediately the hot water crossing, thus avoiding any dangerous burn.

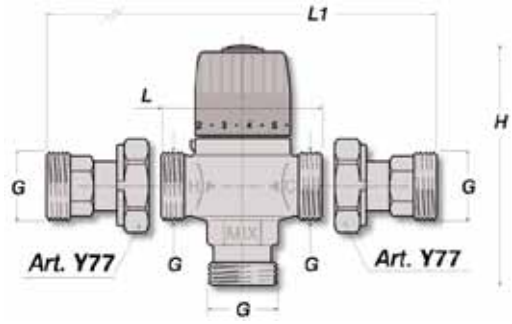
Dimensions



art. **P09**

Code	G	G1	L	L1	H	Fittings	Kv	Range [°C]	Weight	N. P/B	N. P/C
P09A20N00	3/4" M	1" F	59	-	90	-	2,3	30-65	370	1	20
P09A20N00L1	3/4" M	1" F	59	123	90	filter+check valve	2,3	30-65	550	1	20
P09A20N00L2	3/4" M	1" F	59	123	90	check valve	2,3	30-65	550	1	20
P09A20N00L3	3/4" M	1" F	59	123	90	full bore	2,3	30-65	540	1	20

Weight (grams) - N. P/B: number of pieces in box, plastic bag - N. P/C: number of pieces in carton



art. **P10 • P11**

Code	G	L	L1	H	Fittings	Kv	Range [°C]	Weight	N. P/B	N. P/C
P10A20N00	3/4" M	59	-	90	-	1,8	30-65	370	1	20
P10A20N00L1	3/4" M	59	123	90	filter+check valve	1,8	30-65	550	1	20
P10A20N00L2	3/4" M	59	123	90	check valve	1,8	30-65	550	1	20
P10A20N00L3	3/4" M	59	123	90	full bore	1,8	30-65	540	1	20
P10A25N00	1"M	70	-	94	-	1,8	30-65	446	1	20
P10A25N00L2	1"M	70	138	94	check valve	1,8	30-65	741	1	20
P10A25N00L3	1"M	70	138	94	full bore	1,8	30-65	732	1	20
P11A20N00	3/4" M	59	-	90	-	2,3	30-65	370	1	20
P11A20N00L1	3/4" M	59	123	90	filter+check valve	2,3	30-65	550	1	20
P11A20N00L2	3/4" M	59	123	90	check valve	2,3	30-65	550	1	20
P11A20N00L3	3/4" M	59	123	90	full bore	2,3	30-65	540	1	20
P11A25N00	1"M	70	-	94	-	2,3	30-65	446	1	20
P11A25N00L2	1"M	70	138	94	check valve	2,3	30-65	741	1	20
P11A25N00L3	1"M	70	138	94	full bore	2,3	30-65	732	1	20

Weight (grams) - N. P/B: number of pieces in box, plastic bag - N. P/C: number of pieces in carton

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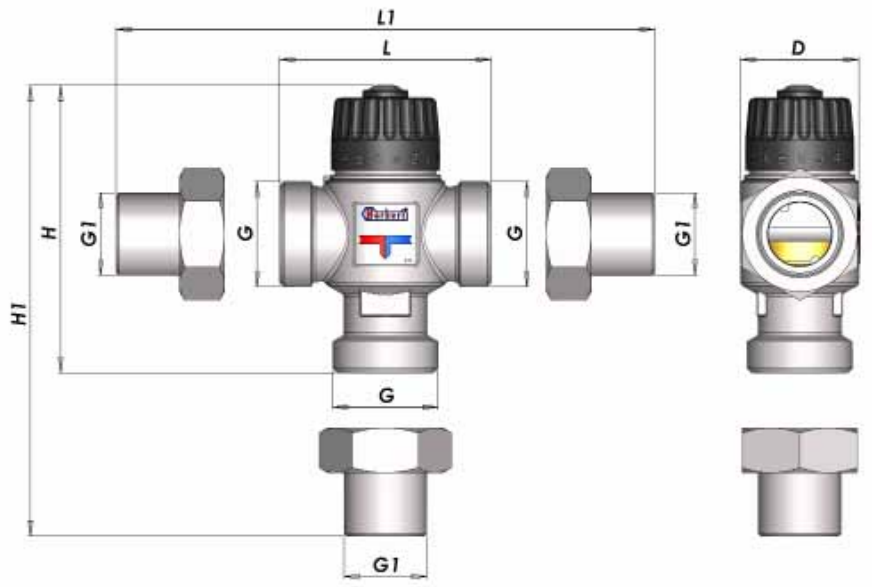
THERMOSTATIC MIXING VALVE WITH CENTRAL MIX

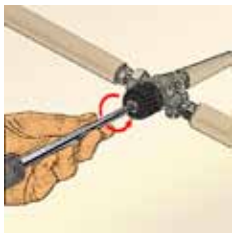


art. **V17**

Code	G	G1	L	L1	H	H1	D	Fittings	Kv	Range[°C]	Weight	N. P/B	N. P/C
V17M32NAA	G1"1/4M	-	84	-	114	-	47	-	3,5	30-65	370	1	20
V17M32NAAL2	G1"1/4M	G1"M	84	154	114	149	47	-	3,5	30-65	550	1	20

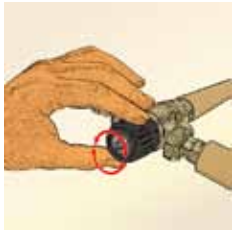
Weight (grams) - N. P/B: number of pieces in box, plastic bag - N. P/C: number of pieces in carton

Installation

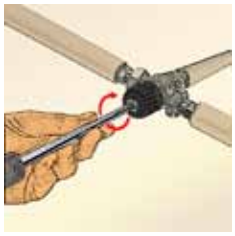


Before installing the ***T-comfort*** thermostic mixing valve, we recommend to verify working circuit conditions, for example pressure and temperature, to ensure they're in compliance with the valves' specifications. The system where the valve has to be installed has to be previously flushed and cleaned. We suggest to install suitable filters at the systems' inlets. Manufacturer's warranty on the valve could fail if debris are on the system, resulting from its non-accurate cleaning.
If the system presents hard water, we suggest to treat the water with suitable instruments, before installing the ***T-comfort*** valve.
The ***T-comfort*** Thermostatic Mixing Valve can be installed in any position, whether horizontal or vertical. It is important to keep the valve accessible for maintenance.
To prevent back flow and bad circulation it is advisable to fit check inserts (available on request) at mixing valve inlets.

Commissioning and temperature setting



For the right commissioning of the valve, follow these instructions:
• Ensure that the system is free and cleaned from any debris
• Temperature setting must be carried out using a calibrated thermometer. To regulate the temperature, unscrew the handle'screw, turn the same handle clockwise or anticlockwise until the desired temperature has been reached. Once the temperature is regulated, block again the screw.
Attention: whilst regulating, wait until the temperature gauge has stabilized before making other movements.



The valve is preset at 40°C and at following conditions:

Hot temperature Supply = 70 °C
Cold Temperature Supply = 15 °C

To easily set the temperature, consider *Tab. 1*.

THERMOSTATIC MIXING VALVE WITH CENTRAL MIX

Maintenance

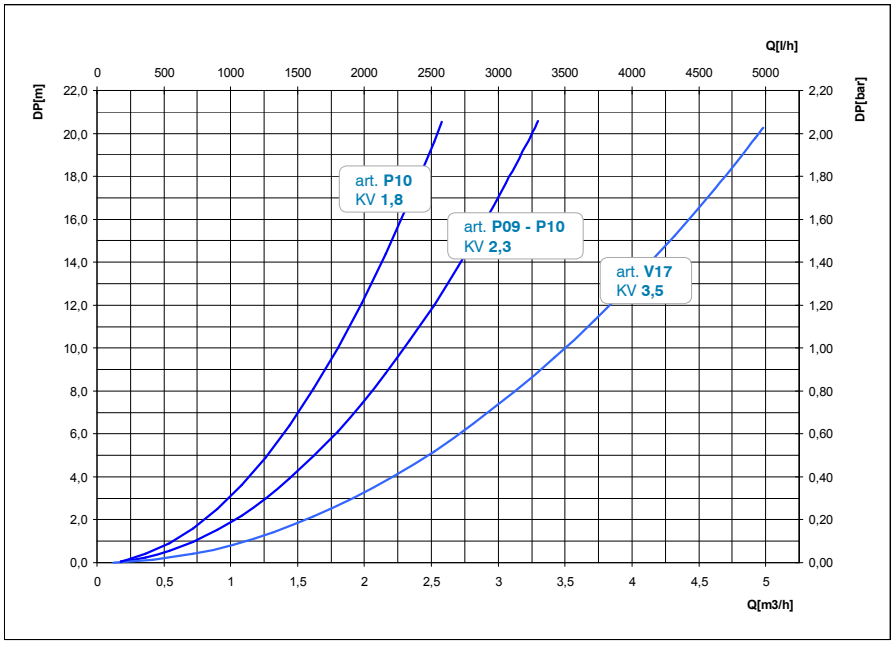
The maintenance of the system and the control on the valve should be carried out every 12 months or more frequently if necessary. If the mixed water temperature has significantly changed after commissioning, we recommend to verify system's conditions, as indicated in the *Installation Section* and *Commissioning Section*.

Failure to comply with the installation and commissioning instructions as detailed will invalidate the product warranty.

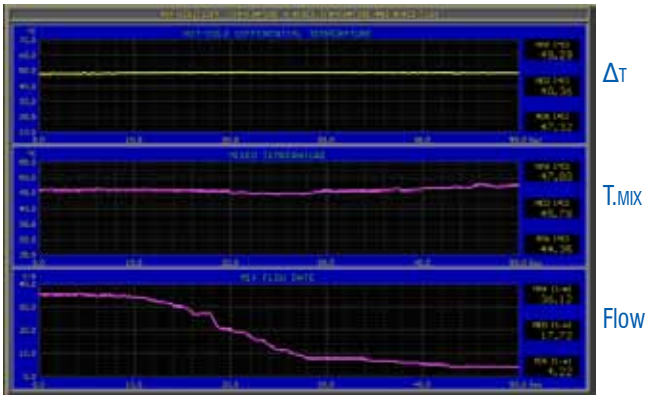
Tab. 1

min.	
1	36 °C
2	40 °C
3	44 °C
4	50 °C
5	53 °C
max.	

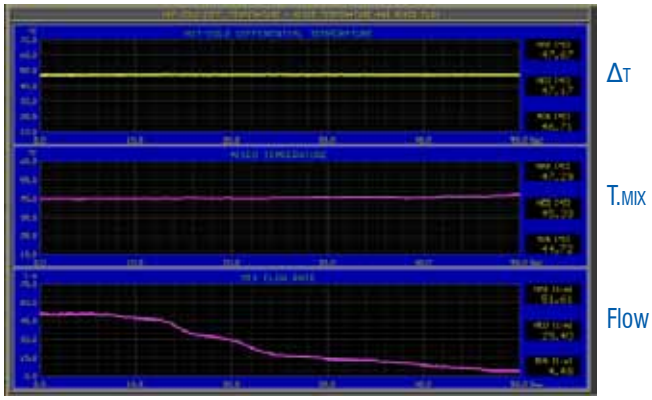
Diagrams



Flow reduction



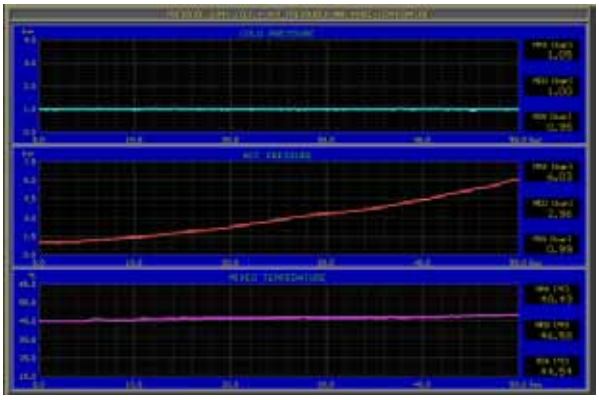
art. P10



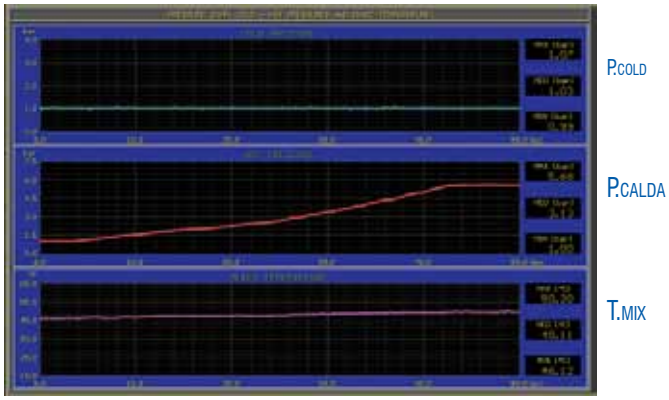
art. P09 • P11

THERMOSTATIC MIXING VALVE WITH CENTRAL MIX

Hot pressure jump

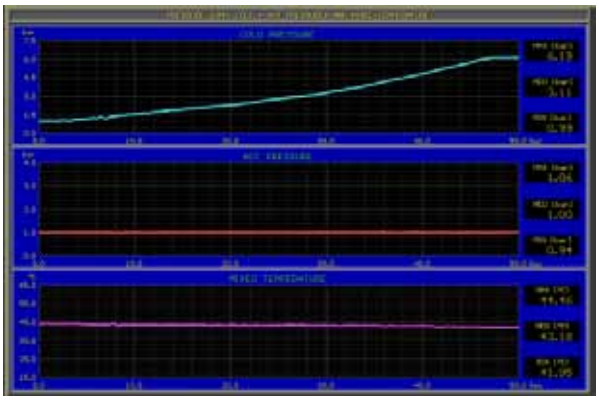


art. P10

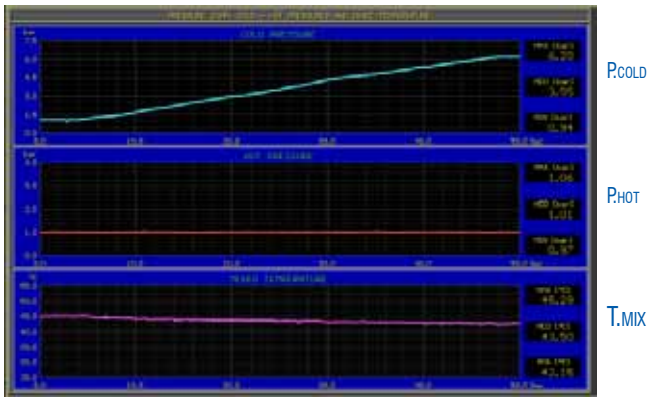


art. P09 • P11

Cold pressure jump

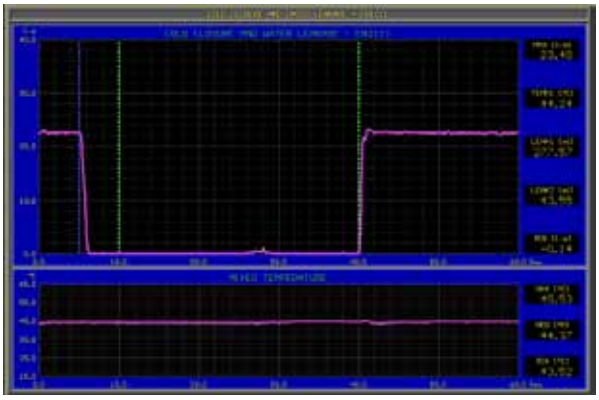


art. P10



art. P09 • P11

Safety test



art. P10

THERMOSTATIC MIXING VALVE WITH CENTRAL MIX

Specifications

The specification's text refers to a specific article reference. Each version of the product obliges the engineer to modify the specification's text.

Art.Ref. P09A20N00L1
Thermostatic mixing valve with puamp connection, Antiscald. Full bore 1" nut and fitting connections, *1" pump connection.* Materials: brass' bodies, stainless steel springs, EPDM washers. Max working pressure 10bar, working temperature range 5-90°C. Mixing valve setting range *30÷65 °C ±2*°C. KV value 2,3.

Art.Ref. P10A20N00L1
Thermostatic mixing valve for hydro-thermal- sanitary systems - Antiscald. 3/4" nut and fitting connections with *integrated filter and check valve.* Materials: brass' bodies, stainless steel springs, EPDM washers. Max working pressure 10bar, working temperature range 5-90°C. Mixing valve setting range *30÷65 °C ±2*°C. KV value 1,8.

Art.Ref. P10A25N00L3
Thermostatic mixing valve for hydro-thermal- sanitary systems - Antiscald. Full bore 1" nut and fitting connections. Materials: brass' bodies, stainless steel springs, EPDM washers. Max working pressure 10bar, working temperature range 5-90°C. Mixing valve setting range *30÷65 °C ±2*°C. KV value 1,8.

Art.Ref. P11A20N00L2
Thermostatic mixing valve for hydro-thermal- sanitary systems - Antiscald. 3/4" nut and fitting connections with *integrated check valve.* Materials: brass' bodies, stainless steel springs, EPDM washers. Max working pressure 10bar, working temperature range 5-90°C. Mixing valve setting range *30÷65 °C ±2*°C. KV value 2,3.

Art.Ref. V17M32NAAL2
Thermostatic mixing valve for hydro-thermal- sanitary systems. Full bore 1" nut and fitting connections. Materials: brass' bodies, stainless steel springs, EPDM washers. Max working pressure 10bar, working temperature range 5-90°C. Mixing valve setting range *30÷65 °C ±2*°C. KV value 3,5.

Accessories

Art. Y77-2

Fitting with running nut – flat washer - nickel-plated

Max. working temperature: **110 °C**

code	type	size
Y77 A20 N00 2	-	*3/4" M x 3/4"*
Y77 A25 N00 2	-	*1" M x 1"*

Art. P93

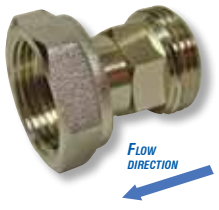
Fitting with running nut – flat washer

Max. working temperature: **95 °C**

code	size	surface treatment
P93 015 N00	*G 1/2" M - G 3/4" F*	*Nichel*
P93 020 N00	*G 3/4" M - G 1" F*	*Nichel*
P93 025 N00	*G 1" M - G 1"1/4" F*	*Nichel*
P93 032 N00	*G 1"1/4 M- G 1"1/2 F*	*Nichel*

Art. Y77

Compact check valve with running nut – filter – flat washer - nickel-plated

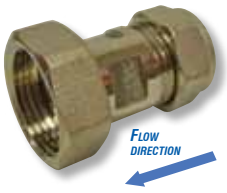


Max. working temperature: **110 °C**
Opening pressure: **0,05 bar**

code	type	size
Y77 A20 N00 F	Check valve + Filter	*3/4" M x 3/4"*
Y77 A20 N00	Check valve	*3/4" M x 3/4"*
Y77 A25 N00	Check valve	*1" M x 1"*

Art. Y44

Compact check valve with running nut, compression end – filter – flat washer - nickel-plated



Max. working temperature: **95 °C**
Opening pressure: **0,05 bar**

code	type	size
Y44 A15 N00	Check valve + Filter	*15mm x 3/4"*

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