

THERMOSTATIC MIXING VALVE

Description



Barberi L-Comfort Series thermostatic mixing valves are devices with mixed water on the side way 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.

Product range

Article code	Description
Art. V07-AA	Thermostatic mixing valve range 20 – 43 °C – Kv 1,6
Art. V07-AB	Thermostatic mixing valve range 35 – 60 °C – Kv 1,6
Art. V07-BA	Thermostatic mixing valve range 20 – 43 °C – Kv 2,5
Art. V07-BB	Thermostatic mixing valve range 35 – 60 °C – Kv 2,5

Technical features

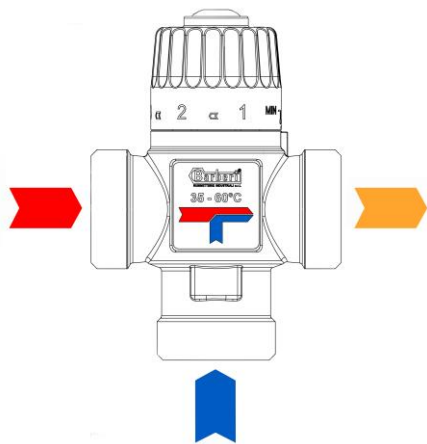
Working temperature range: **20÷43 °C - 35÷60 °C**
 Max working temperature: **95 °C**
 Accuracy of outlet mixing: **±2 °C**
 Factory pre-set temperature of mix: **40°C (20÷43 °C) – 44°C (35÷60 °C)**
 Reference working conditions:
 T hot = **65 °C**
 T cold = **15 °C**
 Reference hot and cold pressure: **3 bar**
 Max static pressure: **10 bar**
 Max working pressure: **5 bar**
 Max difference between inlet pressures: **4 bar**
 Flow: **Kv 1,6 – Kv 2,5**
 Connections: **3/4" M – 3/4" F – 1" M**
 Fluid: **Sanitary water, water/glycol solution max 30%**
 Reference standard: **EN1111 – EN1287**

Materials

Body of the valve: **Brass UNI EN 12165 CW617N**
 Flow regulator: **PSU**
 Gaskets: **EPDM**
 Handle: **ABS**

THERMOSTATIC MIXING VALVE

Working

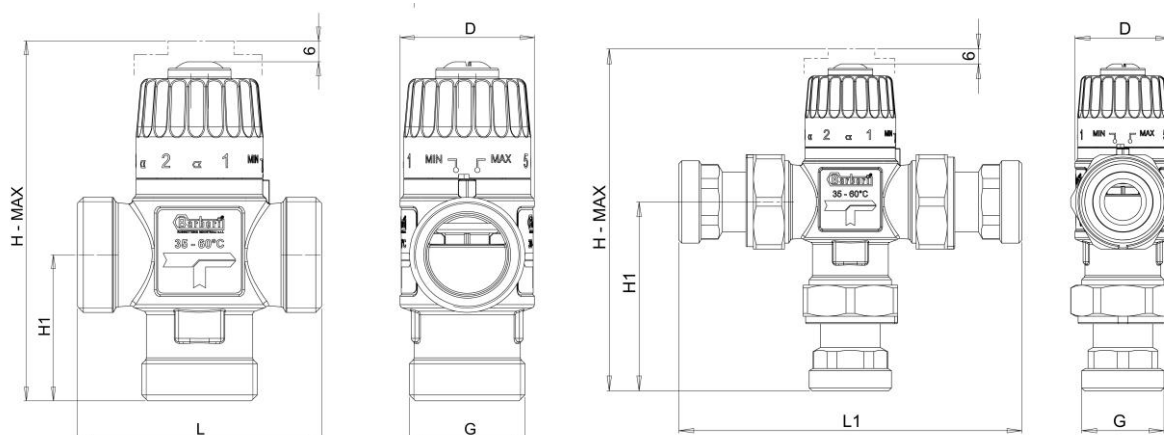


The thermostatic mixing valve L-comfort mixes hot and cold water inlets whilst maintaining constant the setted mixed water temperature on the outlet.

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 L-comfort acts as safety device (according to EN1111), closing immediately the hot water crossing, thus avoiding any dangerous burn.

Dimension



Article	Description	Kv	G	L	L1	H	H1	H2	D	Weight	No.Pcs
V07020NAA	Thermostatic mixing valve range 20 – 43 °C – Kv 1,6	1,6	Rp 3/4" F	70	–	103,5	42	–	38,5	-	-
V07M20NAA	Thermostatic mixing valve range 20 – 43 °C – Kv 1,6	1,6	G 3/4" M	70	–	103,5	42	–	38,5	-	-
V07M20NAAL2	Thermostatic mixing valve range 20 – 43 °C – Kv 1,6	1,6	Adapters G 3/4" M	–	134	135,5	–	74	38,5	-	-
V07M20NAAL4	Thermostatic mixing valve range 20 – 43 °C – Kv 1,6	1,6	Adapters mm 15	–	134	135,5	–	74	38,5	-	-
V07M25NAA	Thermostatic mixing valve range 20 – 43 °C – Kv 1,6	1,6	G 1" M	70	–	103,5	42	–	38,5	-	-
V07M25NAAL2	Thermostatic mixing valve range 20 – 43 °C – Kv 1,6	1,6	Adapters G 1" M	–	134	135,5	–	74	38,5	-	-
V07020NAB	Thermostatic mixing valve range 35 – 60 °C – Kv 1,6	1,6	Rp 3/4" F	70	–	103,5	42	–	38,5	-	-
V07M20NAB	Thermostatic mixing valve range 35 – 60 °C – Kv 1,6	1,6	G 3/4" M	70	–	103,5	42	–	38,5	-	-
V07M20NABL2	Thermostatic mixing valve range 35 – 60 °C – Kv 1,6	1,6	Adapters G 3/4" M	–	134	135,5	–	74	38,5	-	-
V07M20NABL4	Thermostatic mixing valve range 35 – 60 °C – Kv 1,6	1,6	Adapters mm 15	–	134	135,5	–	74	38,5	-	-
V07M25NAB	Thermostatic mixing valve range 35 – 60 °C – Kv 1,6	1,6	G 1" M	70	–	103,5	42	–	38,5	-	-
V07M25NABL2	Thermostatic mixing valve range 35 – 60 °C – Kv 1,6	1,6	Adapters G 1" M	–	134	135,5	–	74	38,5	-	-
V07M25NBA	Thermostatic mixing valve range 20 – 43 °C – Kv 2,5	2,5	G 1" M	70	–	103,5	42	–	38,5	-	-
V07M25NBAL2	Thermostatic mixing valve range 20 – 43 °C – Kv 2,5	2,5	Adapters G 1" M	–	134	135,5	–	74	38,5	-	-
V07M25NBB	Thermostatic mixing valve range 35 – 60 °C – Kv 2,5	2,5	G 1" M	70	–	103,5	42	–	38,5	-	-
V07M25NBBL2	Thermostatic mixing valve range 35 – 60 °C – Kv 2,5	2,5	Adapters G 1" M	–	134	135,5	–	74	38,5	-	-

THERMOSTATIC MIXING VALVE

Installation

Before installing the L-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 L-comfort valve. The L-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 valves 20÷43°C is presetted at the temperature of 40°, the valves 35÷60°C is presetted at the temperature of 44°.

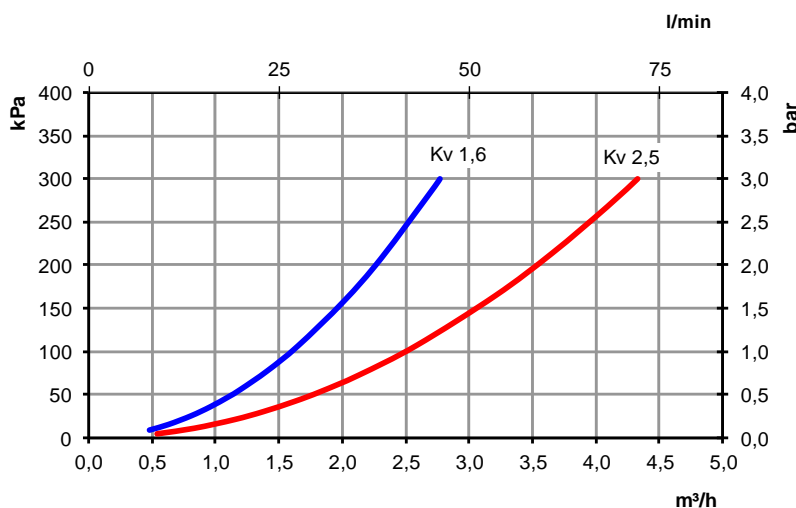
Reference conditions: hot Temperature= 65°C; cold Temperature= 15°C
Inlet pressures equivalent: 3 bar

Maintenance

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

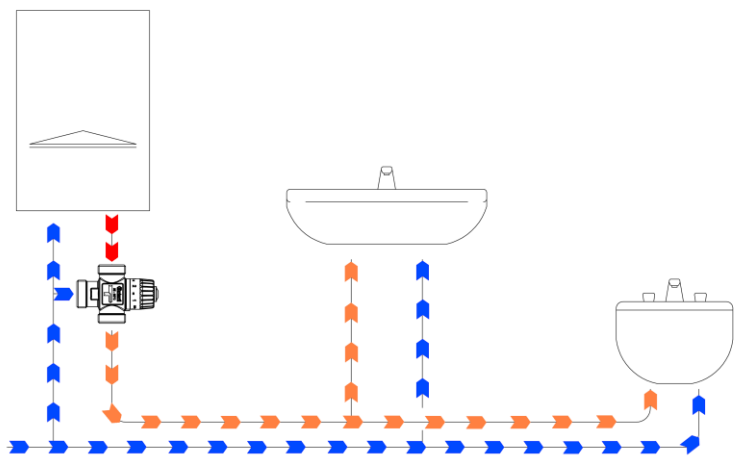
Failure to comply with the installation and commissioning instructions as detailed will invalidate the product warranty.

Diagrams



THERMOSTATIC MIXING VALVE

Example of installation



Accessories



Art. Y77

Compact check valve with nut - filter - plane gasket - nickel plated.

Max working temperature: 95°C
Opening pressure: 0,02 bar

Article code	Size	Inside
Y77 A20 N00 F	G 3/4" M - G 3/4" F	filter + check valve
Y77 A20 N00	G 3/4" M - G 3/4" F	check valve
Y77 A20 N00 2	G 3/4" M - G 3/4" F	full bore
Y77 A25 N00	G 1" M - G 1" F	check valve
Y77 A25 N00 2	G 1" M - G 1" F	full bore
▶ Y77 A22 N00	mm 22 - G 1" F	check valve

▶ on request



Art. Y44

Compact check valve with nut and compression connection - filter - plane gasket - nickel plated.

Max working temperature: 95°C
Opening pressure: 0,02 bar

Article code	Size	Inside
Y44 A15 N00	mm 15 - G 3/4" F	check valve



Art. P93

Nut and male connection with plane gasket.

Max working temperature: 95°C

Article code	Size	surface treatment
P93 015 N00	G 1/2" M - G 3/4" F	Nickel plating
P93 020 N00	G 3/4" M - G 1" F	Nickel plating
P93 025 N00	G 1" M - G 1 1/4" F	Nickel plating
P93 032 N00	G 1 1/4" M - G 1 1/2" F	Nickel plating
P93 015 000	G 1/2" M - G 3/4" F	-
P93 020 000	G 3/4" M - G 1" F	-
P93 025 000	G 1" M - G 1 1/4" F	-
P93 032 000	G 1 1/4" M - G 1 1/2" F	-

THERMOSTATIC MIXING VALVE

Related products



Art. P09

**Thermostatic mixing valve
with pump connection**

Max working temperature: 90 °C
Standard: EN1111 - EN1287
Working range: 30 ÷ 65 °C
Flow: 2,3 Kv



code	size	side valves
P09 A20 N00	G 3/4" M - G 1" M	-
P09 A20 N00 L1	G 3/4" M - G 1" M	filter + check valve
P09 A20 N00 L2	G 3/4" M - G 1" M	check valve
P09 A20 N00 L3	G 3/4" M - G 1" M	full bore



Art. P11

**Thermostatic mixing valve
for hydro-thermal-sanitary systems.
Antiscald**

Max working temperature: 90 °C
Standard: EN1111 - EN1287
Working range: 30 ÷ 65 °C
Flow: 2,3 Kv



code	size	side valves
P11 A20 N00	G 3/4" M	-
P11 A20 N00 L1	G 3/4" M	filter + check valve
P11 A20 N00 L2	G 3/4" M	check valve
P11 A20 N00 L3	G 3/4" M	full bore
P11 A25 N00	G 1" M	-
P11 A25 N00 L2	G 1" M	check valve
P11 A25 N00 L3	G 1" M	full bore



Art. P10

**Thermostatic mixing valve
for hydro-thermal-sanitary systems.
Antiscald**

Max working temperature: 90 °C
Standard: EN1111 - EN1287
Working range: 30 ÷ 65 °C
Flow: 1,8 Kv



code	size	side valves
P10 A20 N00	G 3/4" M	-
P10 A20 N00 L1	G 3/4" M	filter + check valve
P10 A20 N00 L2	G 3/4" M	check valve
P10 A20 N00 L3	G 3/4" M	full bore
P10 A25 N00	G 1" M	-
P10 A25 N00 L2	G 1" M	check valve
P10 A25 N00 L3	G 1" M	full bore

THERMOSTATIC MIXING VALVE



Art. P04

Solar systems thermostatic mixing valve. Antiscald

Max working temperature: 110 °C
Standard: EN1111 - EN1287
Working range: 30 ÷ 65 °C
Flow: Kv 1,8



code	size	side valves
P04 A20 N00	G 3/4" M	-
P04 A20 N00 L1	G 3/4" M	filter + check valve
P04 A20 N00 L2	G 3/4" M	check valve
P04 A20 N00 L3	G 3/4" M	full bore
P04 A25 N00	G 1" M	-
P04 A25 N00 L2	G 1" M	check valve
P04 A25 N00 L3	G 1" M	full bore



Art. P05

Solar systems thermostatic mixing valve. Antiscald

Max working temperature: 110 °C
Standard: EN1111 - EN1287
Working range: 30 ÷ 65 °C
Flow: Kv 2,3



code	size	side valves
P05 A20 N00	G 3/4" M	-
P05 A20 N00 L1	G 3/4" M	filter + check valve
P05 A20 N00 L2	G 3/4" M	check valve
P05 A20 N00 L3	G 3/4" M	full bore
P05 A25 N00	G 1" M	-
P05 A25 N00 L2	G 1" M	check valve
P05 A25 N00 L3	G 1" M	full bore



Art. 630

4-way thermostatic mixing valve

Max working temperature 90 °C
Working range: 30 ÷ 60 °C
Flow: Kv 3,5

code	size
630A20000	Rp 3/4" F



Art. 630/1 - 630/2

4-way thermostatic mixing valve with pump connection

Max working temperature 90 °C
Working range: 30 ÷ 60 °C
Flow: Kv 3,5

code	size
630A200001	Rp 3/4" F - G 1" 1/2 F
630A200002	Rp 3/4" F - G 1" F



Art. W51

4-way thermostatic mixing valve "OCTOPUS"

Presetting factory temperature: 45 °C
Range: 25 ÷ 58 °C
Flow: Kv 4,5

code	size
W51 A20000	Rp 3/4" F - G 1" 1/2 F

Term of contract

This text refers to a specific code of the product. For each version of the groups the designer must modify the specifications.

THERMOSTATIC MIXING VALVE

Code V07020NAA

Antiscald thermostatic mixing valve connection Rp 3/4" F. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 20÷43°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M20NAA

Antiscald thermostatic mixing valve connection G 3/4" M. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 20÷43°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M20NAAL2

Antiscald thermostatic mixing valve connection with adapters G 3/4" M, possibility to fit check valve. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 20÷43°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M20NAAL4

Antiscald thermostatic mixing valve with compression connection mm 15, possibility to fit check valve. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 20÷43°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M25NAA

Antiscald thermostatic mixing valve connection G 1" M. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 20÷43°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M25NAAL2

Antiscald thermostatic mixing valve connection with adapters G 1" M, possibility to fit check valve. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 20÷43°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07020NAB

Antiscald thermostatic mixing valve connection Rp 3/4" F. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 35÷60°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M20NAB

Antiscald thermostatic mixing valve connection G 3/4" M. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 35÷60°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

THERMOSTATIC MIXING VALVE

Code V07M20NABL2

Antiscald thermostatic mixing valve connection with adapters G 3/4" M, possibility to fit check valve. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 35÷60°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M20NABL4

Antiscald thermostatic mixing valve with compression connection mm 15, possibility to fit check valve. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 35÷60°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M25NAB

Antiscald thermostatic mixing valve connection G 1" M. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 35÷60°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M25NABL2

Antiscald thermostatic mixing valve connection with adapters G 1" M, possibility to fit check valve. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 35÷60°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 1,6 m³/h.

Code V07M25NBA

Antiscald thermostatic mixing valve connection G 1" M. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 20÷43°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 2,5 m³/h.

Code V07M25NBAL2

Antiscald thermostatic mixing valve connection with adapters G 1" M, possibility to fit check valve. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 20÷43°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 2,5 m³/h.

Code V07M25NBB

Antiscald thermostatic mixing valve connection G 1" M. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 35÷60°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 2,5 m³/h.

Code V07M25NBBL2

Antiscald thermostatic mixing valve connection with adapters G 1" M, possibility to fit check valve. Body – alloy UNI EN 12165 CW617N. Obturator PSU. Stainless steel springs. Tightness elements EPDM. Handle ABS. Max. working temp. 95°C. Setting range 35÷60°C. Accuracy ±2°C. Max. working pressure (static) 10 bar. Max working pressure (dynamic) 5 bar. Kvs 2,5 m³/h.