

Distribution kit with fixed point thermostatic mixing valve



Jürgen Schlösser
Armaturen



SAFETY: Please read carefully the mounting and setting up directions before setting the system going, in order to avoid accidents and failures of the installation caused by an improper use of the product. **Keep this manual for future consultations.**

List and basic technical features of the main components

The components are supplied unassembled: you must assemble them to get the mounted pump unit as shown in the following illustration.

(A) Connection fittings

Angle connection equipped with thermometer, pit for the connection of the security thermostat (optional) airvent valve. The thermometer can be removed to be put into the opposite side, in case of mounting of the pump unit on the right side of the manifold.

(B) Connection to the manifold

Fitting for the connection to the manifold.
The connection can be done using a 1" nipple, O-Ring and flat gasket (the flat gasket toward the eccentric). The nipple is delivered by request.
The eccentric connection is 30 mm.

(C) Circulating pump

(for the models that include it)
Synchronous high efficiency circulating pump Wilo Yonos Para RS RKC with cable. Control with two possibilities: progressive speed control or variable Δp .

(D) Swivel connection

The swivel connection makes easier the connection of the return way.
One nipple 1" can be used (see B)

(E) Thermostatic mixing valve

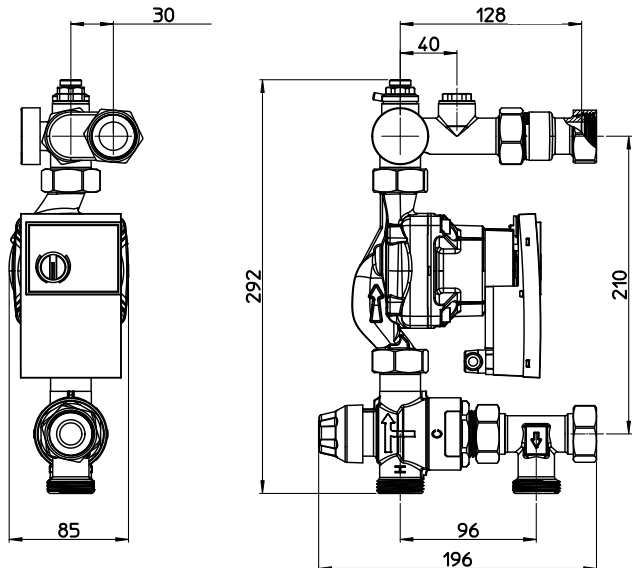
3-way thermostatic mixer with high hydraulic performances (Kvs 4,0) and adjustable temperature $20 \div 45^\circ\text{C}$ (F3 models)



Safety thermostat (not included)

Safety thermostat with fixed setting temperature 50°C .
Connection 1/2" Male.
NC. 10(1)A/250 VAC.
Maximum temperature: 120°C .
Maximum pressure 80 bar.

Dimensions



Technical features

Maximum working pressure:
10 bar (PN10) (unit without circulating pump)
Unit with Yonos Para RS circulating pump: 6 bar (PN6)

Maximum inlet temperature for mixing valve: 95°C

Connection to the circuit:: 1" Male
Connection to manifold: 1" Nut or 1" Male (with additional nipple)

Field of utilization

For power up to 9 kW (with Δt 8 K) and maximum flow 1.000 l/h
(Approximate data calculated with a 6 m nominal lifting power circulating pump)

Kvs value: 3,4 (unit without circulating pump)

Technical data of circulating pumps

Wilo Yonos Para RS 15/6 RKC: 3-45 W ; $I_{\text{max}} = 0,44 \text{ A}$

Approximate data for radiant heating installations

Field of regulation	Δt	Approximate power and flow of the installation	Circulating pump	Residual lifting power	Approximate surface of the radiant installation
$20 \div 45^\circ\text{C}$	8 K	9 kW 1000 L/h	Wilo Yonos Para RS 15/6	5 mH ₂ O	max 100 m ²

IMPORTANT!

Before installing the Distribution kit and especially the mixing valve, the heating circuit should be washed with clean water. The presence of solid particles or fats in the recirculated water can lead to malfunction of the mixing valve, flowmeters and thermostatic valves and, implicitly, loss of warranty.

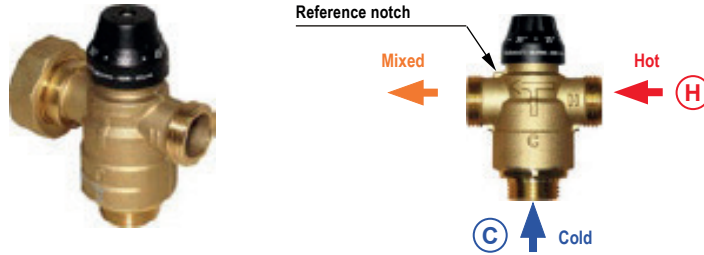
It is recommended to install fine sieve filters.

It is recommended to install a non-return valve on the 'return' of the Distribution kit.

High performance thermostatic mixing valve



Jürgen Schlösser
Armaturen



1. Field of utilization

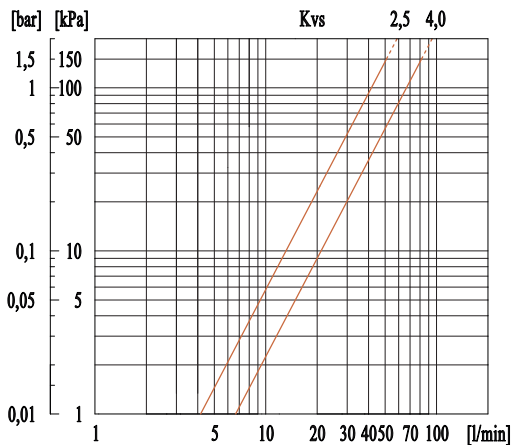
Thermostatic mixing valve for employment in heating systems (radiators and underfloor), hot domestic water and solar thermal. It allows to keep constant mixed water temperature for the end user, regardless of inlet conditions both of hot and cold water.

2. Installation directions

The thermostatic mixing valve must be installed by skilled worker, according to the instructions of this manual and in accordance with regulations in force. Setting of temperature is done by rotating the knob up to make its target value to coincide with reference notch. The reference temperatures are indicated on the outline of the knob: they are related to the mixing valve in standard working conditions as stated in the diagram at side.

It is possible to lock the regulation by removing the screw that fastens the knob and by replacing it in the locking position between MIN and MAX.

Setting temperatures of the thermostatic mixing valve higher than 55 °C may cause scalds in a very short time, particularly to the childrens. Therefore we recommend to install a security anti-scald device in the crucial outlets.



Model	T °C	Kvs
F3	20÷45	4,0

Standard working conditions:

F3 (20-45°C): $\Delta p=1 \text{ bar}$; $\rightarrow 59,3 \text{ l/min}$

$T_H: 55^\circ\text{C}$ $T_C: 24^\circ\text{C}$ $T_{MIX}: 32^\circ\text{C}$

The anti-scald function automatically stops the hot water flow in case of failure of the cold water circuit. This security is operating at a temperature difference of only 10 K between the hot water inlet temperature and the mixed outlet temperature. Check this operation when the installation is running by closing the cold water isolating valve: the outlet flow of the mixed water must come down to zero very quickly.

It is recommended to install isolating valves to be able to isolate the thermostatic mixing valve in case of maintenance.

3. Technical features

Maximum static pressure:	10 bar
Maximum differential pressure:	5 bar
Max ratio between the pressures:	2:1
Maximum flow for a constant lowering (1,5 bar):	within $\pm 2 \text{ K}$ (Kvs 4,0) = 82 l/min
Maximum inlet temperature:	continue 100 °C; (short time 120 °C for 20 s)
Setting temperature field:	20 ÷ 45 °C;
Fluid to be use	Water, glycol solutions 50% max.

IMPORTANT!

Before installing the Distribution kit and especially the mixing valve, the heating circuit should be washed with clean water. The presence of solid particles or fats in the recirculated water can lead to malfunction of the mixing valve, flowmeters and thermostatic valves and, implicitly, loss of warranty.

It is recommended to install fine sieve filters.

It is recommended to install a non-return valve on the 'return' of the Distribution kit.