



HOLLER

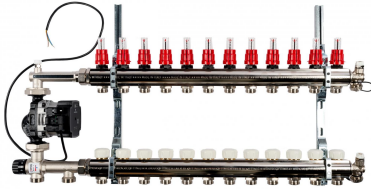
Technical data sheet

Fixed point mixing station

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Fixed point thermostatic regulation mixing and distribution unit



HOLLER

DESCRIPTION

Pre-assembled pump group for fixed point regulation and circulation of mixed fluid. It allows the circulation of the thermal fluid, coming from the primary circuit, by keeping the temperature at a pre-set value (fixed point) through the help of a mixing valve with thermostatic element.




It is used in heating systems in general and radiant panel systems.

The group is composed of a pump, thermostatic mixing valve, flow LCD thermometers, manual air vent, fittings for secondary distribution manifolds. The group can be installed with the secondary distribution manifolds on the right or the left.

ADVANTAGES

- Reversibility: thanks to the presence of a thermometer also on the rear side, the group can be easily inverted from right to left by fully reversing it.
- Flexibility of installation. The group can be installed on wall, in box or recessed.
- Monobloc structure. The thermostatic mixing valve and the instrument holder fitting, equipped with air vent and thermometers, are designed as monobloc structure. The installation is therefore immediate and points of possible leakage are reduced to a minimum.
- Anti-tamper device. The device, placed within the mixing valve knob, avoids undesired variations of the setting.
- Fast fittings. The provided fittings are equipped with O-Ring and flat gasket to make the installation faster, avoiding the use of other sealing systems like hemp or teflon tapes.
- Instrument holder fitting. Equipped with manual air vent, double LCD thermometer (on front and rear side) to check the temperature of the mixed water supplied to the system.
- Compact installation: the 75 mm centre distance of the primary side, the 211 mm centre distance to the secondary manifold and the 130 mm pump make the installation very compact.

FIELDS OF APPLICATION

APPLICATIONS		T. max	Max. pressure
	low temperature heating (floor)	5-90°C	10 bar
	low temperature heating (wall)	5-90°C	10 bar
	low temperature heating (ceiling)	5-90°C	10 bar

PERFORMANCE

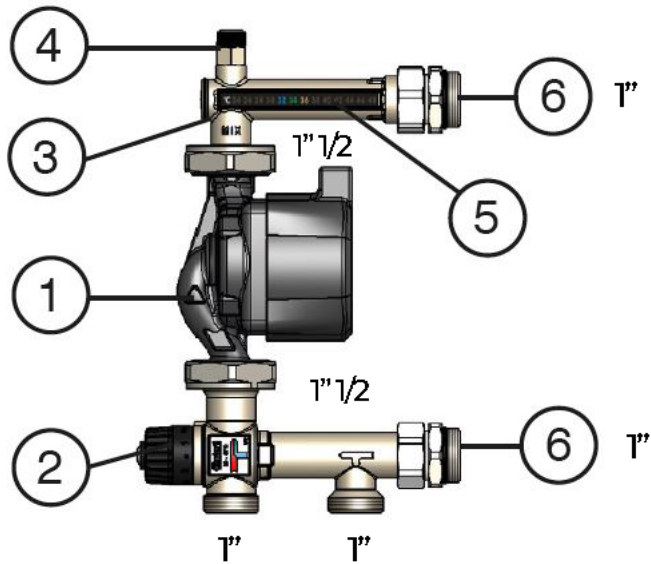
PERFORMANCE	
Working temperature range	5-90°C
Maximum working pressure	10 bar
Male threaded connections	ISO 228-1
Centre distance on the primary manifold	75 mm
Connection centre distance to secondary manifold	211 mm
Pump	Grundfos UPM3 AUTO 25-70 130
Suitable fluids	water, glycol solutions (max 30%)
Temperature adjustment range	20-55°C
Accuracy	±2 °C
Factory setting	40°C
LCD thermometer scale	24-48°C

PERFORMANCE

Flow coefficient of the mixing valve only	3,5 Kv
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COMPONENTS



COMPONENTS

1	Pump
2	Thermostatic mixing valve
3	Instrument holder fitting
4	Manual air vent
5	LCD thermometer
6	Fittings for secondary manifold

MATERIALS

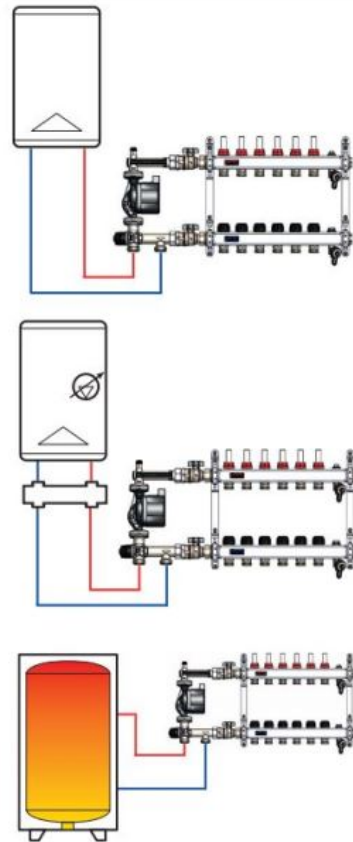
MATERIALS	
Instrument holder fitting	brass EN 12165 CW617N
FITTINGS FOR SECONDARY MANIFOLD	
Body	brass EN 12164 CW617N
Gasket	EPDM
Thermometers	liquid crystals (LCD)
THERMOSTATIC MIXING VALVE	
Body	brass EN 12165 CW617N
Gaskets	EPDM
Headwork	brass EN 12164 CW617N
Spring	stainless steel AISI 302
Thermostatic sensor	wax
Knob	ABS
PUMP	
Body	cast iron
Electric supply	230 V-50/60 Hz
Protection class	Grundfos UPM3: IP 44
Centre distance	130 mm
Connections	G 1 1/2 M (ISO 228-1)
Gaskets	EPDM

INSTALLATION

The mounting options of the group are:

- Wall installation
- Recessed installation
- Box installation

The group can be directly connected to a generator if the latter is not equipped with a pump. Instead, if the generator is equipped with a pump, an hydraulic separator should be placed between the generator and the group, in order to avoid mutual influences between the pumps. The group can be installed downstream of an inertial water storage, which performs the function of an hydraulic separator.



INSTALLATION: GENERAL INFORMATION

Assembling and disassembling is to be performed with system cold and without pressure.
Accessibility: do not obstruct the access and visibility to the device in order to allow check and maintenance operations to the device or other components.

GROUP POSITION

The group can be installed in one of the ways shown in the picture, with the pump rotation axis always horizontal.

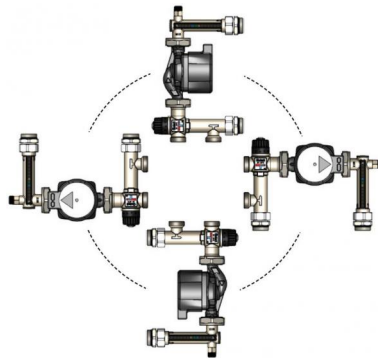
12 o'clock position: suggested.

3 o'clock position: allowed only if the secondary manifold (directly connected to the group) is not equipped with flow meters or it is placed in remote position (only system flow and return pipes are directly connected to the group).

6 o'clock position: allowed but the manual air vent cannot be used anymore since it is placed upside down.

9 o'clock position: see 3 o'clock.

In any case, suitable brackets should be used to fix the group.



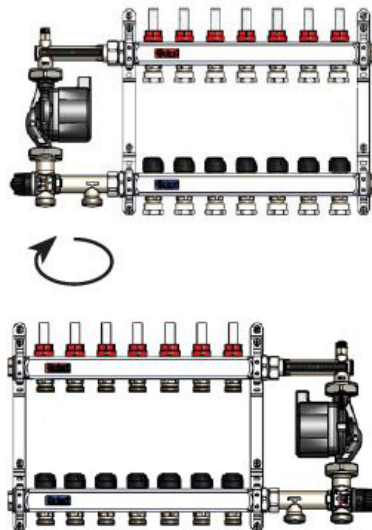
GROUP REVERSIBILITY

The nuts are supplied loosened to facilitate the pump rotation on the installation field. Fully screw the nuts before installing the group.

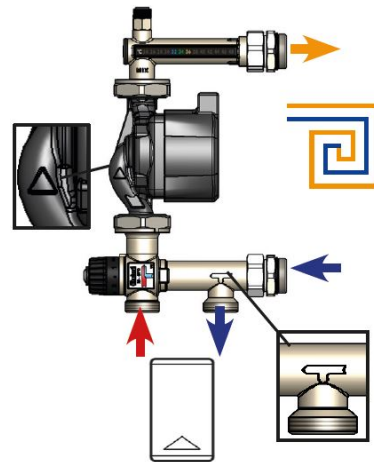
The group can be immediately connected to a secondary distribution manifold on its right or left side. To do this, no specific operation is requested.

Thanks to the presence of a LCD thermometer also on the rear part, the group can be fully and quickly overturned to screw a distribution manifold on its left side.

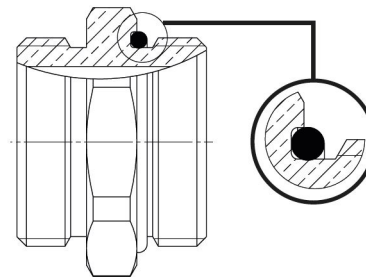
Fully screw the nuts before proceeding with the installation.



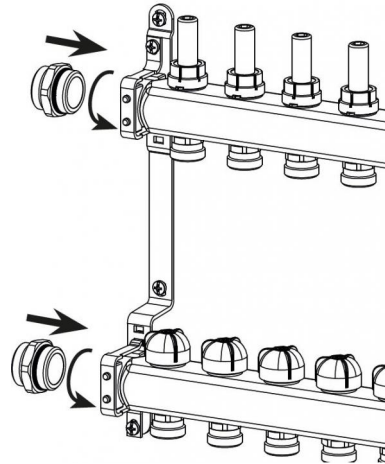
Connection to the secondary manifold.



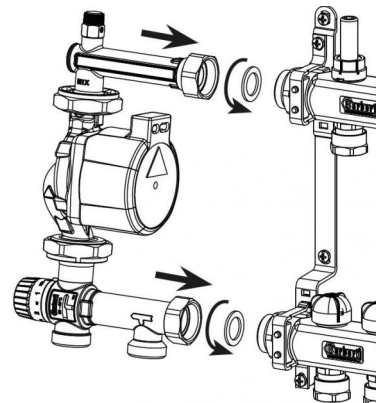
The fittings for the secondary manifold are equipped with O-Ring.



Screw the fittings to the secondary manifold using the threaded part with O-Ring.

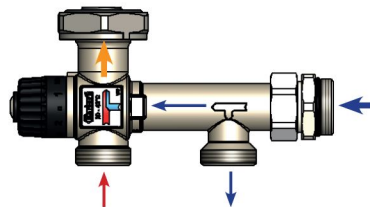


Screw the other side of the fittings to the regulating group, using the running nuts with flat gasket supplied in the package.

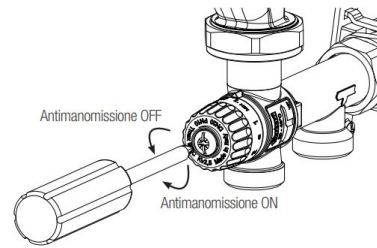


ADJUSTMENT OF THE THERMOSTATIC MIXING VALVE

The thermostatic mixing valve keeps constant the temperature of the water supplied to the system. The fixed point regulation is achieved through a thermostatic sensor which moves thanks to the expansion of the wax inside of it. The sensor integrated within the valve is more precise and reliable than the thermostatic valves with external capillary.




The knob is equipped with an anti-tamper mechanism which makes the rotation difficult, thus avoiding undesired set changes. The mechanism can be released with a screwdriver, slightly loosening the locking screw.



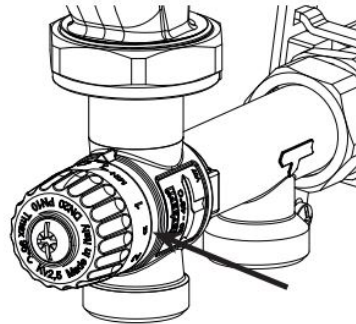
FIRST SYSTEM START UP

The fixed point temperature value can be set with the knob before installing the group or, after the installation, exclusively with the SYSTEM COLD. To set a temperature value different from the factory one, proceed as follows:

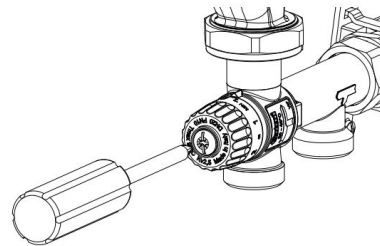
1. The graduated scale on the knob corresponds to the temperature values shown in the table.

	20-55°C
	°C
Min	20°C
1	28°C
2	35°C
3	41°C
4	47°C
5	51°C
Max	55°C
	MIN

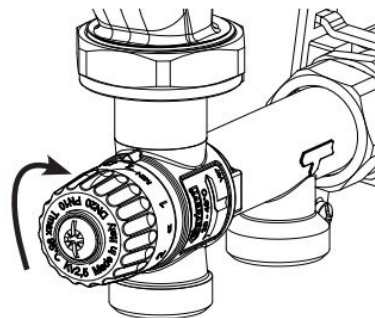
2. With a screwdriver, slightly loosen the locking screw, holding the knob with your hand.



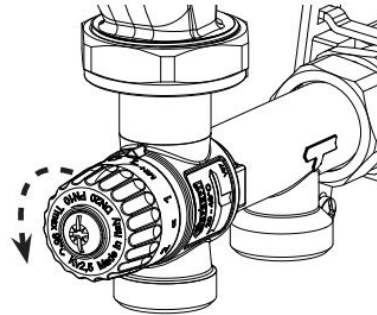
3. Set a mixed water temperature value slightly lower than the design temperature. Activate the generator and wait until it reaches its design working temperature (higher than the valve setting). Activate the group pump. Wait until the mixed water temperature gets stable. Read its value on the flow temperature gauge.



4. Counterclockwise rotate step by step the knob to increase the temperature. Then wait until the temperature gets stable. Read its value on the flow temperature gauge. Proceed in the same way until the design flow temperature is reached.



5. When the desired temperature is reached, close the locking screw, holding the knob with your hand.



NEXT SETTING

If later a change should be needed in the valve setting, proceed as follows.

Case 1: temperature lower than the current setting. Let the system get cold to obtain at least a return temperature lower than the new valve setting. Follow points 1, 2, 3, 4 and 5.

Case 2: temperature higher than the current setting. In this case, the setting can be carried out also with the system running as well as with the system cold. Follow points 1, 2, 4 and 5.

MANUAL AIR VENT

Use: the manual air vent can be used during system filling or to release air accumulated during normal functioning of the system. It is suggested to operate on the valve when the system is cold.



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