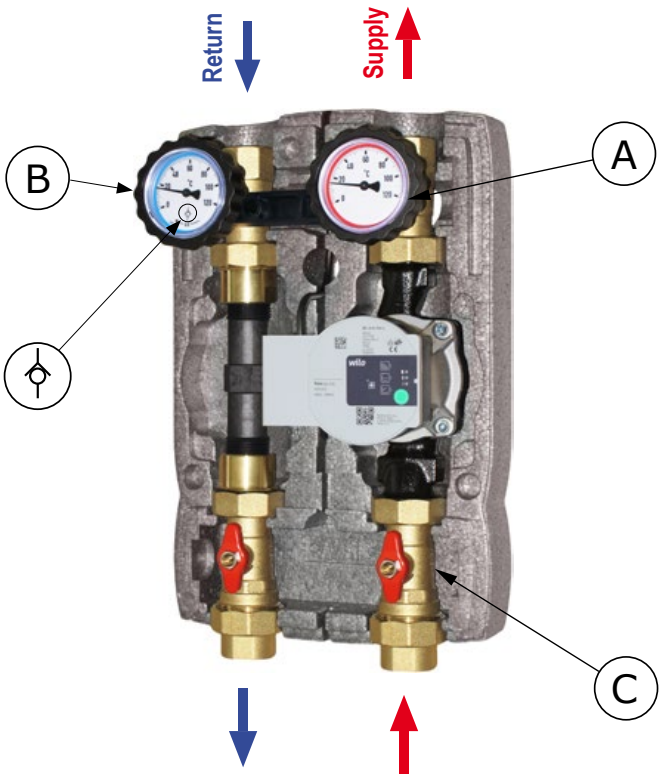
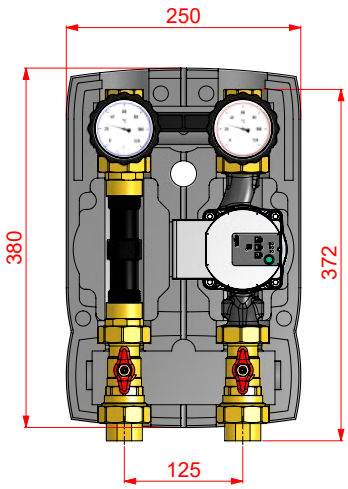
Installation instructions



DIMENSIONS

EPP insulation box: the insulation covering includes a central inside part that hugs the circulating pump and that allows the passage of the cable of the circulating pump. Outlets for the passage of the cables towards the upper part and the lower part of the insulation box. The central part must be removed to allow housing of the meter. *Dimensions: 250x380x170 mm.*

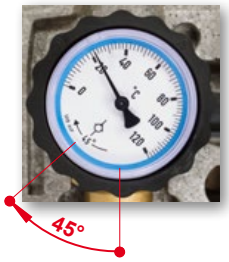


SERVICE

For a possible maintenance or replacement of the circulating pump please close the ball valves **(A)** and **(C)** by rotating the respective knobs clockwise. Once the service is over, open again the two ball valves and restore the pressure of the installation.

20 mbar CHECK VALVE

It is always inside the ball valve **(B)** of the return way, it prevents the natural circulation of the fluid (thermosiphon effect). The check valve can be excluded by rotating the handle by 45° clockwise from the opening position.



TECHNICAL FEATURES

PN 10. Maximum temperature 90°C (*).
Available external connections: 1" F.
(*) Data calculated without the energy meter installed.

FIELD OF USE

For power up to 50 kW (with Δt 20 K) and maximum flow 2150 l/h.
Kvs value: 8.0.
Approximate data calculated with a 6 m head circulating pump. For an accurate measuring or higher flows, please refer to the curve of the circulating pump.
Data calculated without the energy meter installed.

ENERGY SERIES

Energy pump units are made to meter the energy of centralized heating and cooling installations. These pump units allow an easy mounting of the energy meter. The second sensor has to be placed directly into the isolation valve in the supply way, without any adapter or any sensor holder pit.

This special 3 port ball valve, positioned downstream of the circulating pump, allows the probe to be sealed and its possible replacement without emptying the system: it is enough to close the valve to isolate the sensor from the hydraulic circuit. In this way the installation of the meter, after cleaning the circuit and its maintenance or replacement, is simplified.

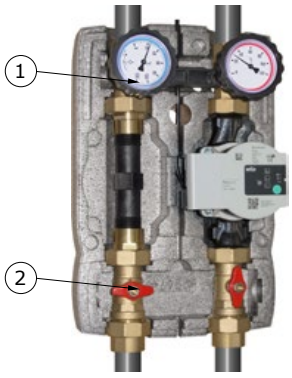
HEATING AND COOLING

Energy pump units are made for heating, cooling and combined systems.

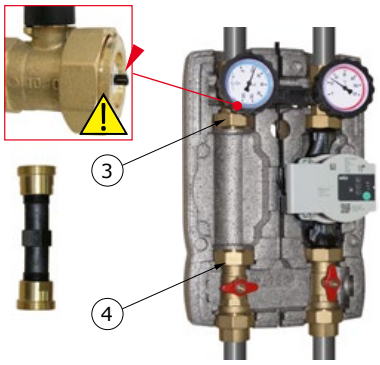
CAUTION: please be sure that the model of energy meter you are going to mount is suitable to the installation.

MOUNTING OF THE ENERGY METER

To safeguard the good working of the energy meter it is recommended to clean the circuit before mounting it. The **Energy** modules are provided with a pre-assembled spacer piece which replaces the meter in the circuit cleaning phase. In this step, by placing into the circuit an appropriate filter *(f.e. Art. 514)*, the working of the installation is possible both in pressure and in temperature. **When the cleaning is over** you can remove the spacer piece and replace it with the energy meter.

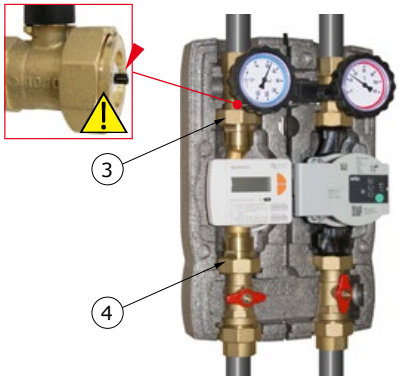


1. *- Close the valves ① and ② before and after the spacer piece on the return way.*



2. *- Unscrew the nuts ③ and ④ and remove the spacer piece with its connections. This operation is easier if you remove the base of the insulation box, if possible.*
CAUTION: please pay attention to the protrusion of the check valve inside the flange (see the illustration).

3. *- Unscrew the connections of the spacer piece and screw them on the body of the energy meter.*
CAUTION: respect the flow direction indicated on the body of the energy meter.

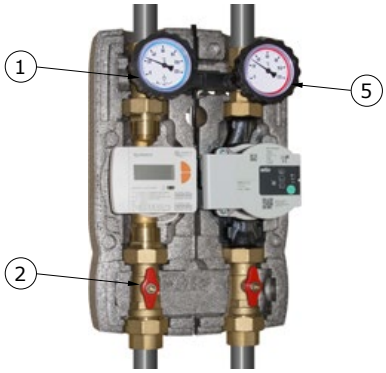


4. *- Place the energy meter and screw the nuts ③ and ④ previously unscrewed. The sensor cable of the return way can be wrapped under the body of the energy counter.*
CAUTION: please pay attention to the protrusion of the check valve inside the flange (see the illustration).

5. *- Place the cable of the supply sensor into the special passage on the center of the insulation box, in order that it comes out through the back hole near the 3-way ball valve (supply way)*

6. *- Close the ball valve ⑤ of the supply way (red thermometer)*

7. *- Remove the plug and the washer from the third way of the ball valve and place into the special seat the supply temperature sensor with its packing gland and the seal o-ring (please refer to the manual of the energy meter manufacturer). This operation is easier if you remove the base of the insulation box, if possible.*



8. *- Open again the ball valves ①, ② and ⑤ and restore the pressure of the installation.* ***The metering will start automatically as soon as the requirements of flow and temperature difference between the supply and the return are satisfied.***

9. *- Please refer to the manual of the manufacturer of the energy meter as regards the directions concerning the lead sealing, the details of the use and the configuration.*