



Uponor PRO 1" Manifold - Technical guideline

UPONOR UNDERFLOOR
HEATING AND COOLING

The Uponor PRO 1" product line

A modular manifold

The Uponor PRO 1", manufactured from fibreglass-reinforced polyamide, is a complete manifold system for underfloor heating.

In order to simplify assembly without complicating adaptation for individual installations, Uponor PRO 1" is supplied in a number of modules. It is generally sufficient to combine a basic kit with manifold modules for the required number of loops. The total number of loops on a manifold should be no more than 12.

The Uponor PRO 1" Manifold is supplied in pairs consisting of supply and return flows, and with 1, 3, 4 or 6 connections for underfloor heating loops. Each loop can be shut off separately. The loops are adjusted on the supply side by inserting a snap ring to limit the turning angle of the valve's hand wheel. A manifold with adjustable flow meter is available as an option instead of the hand wheel. For individual room regulation, replace the hand wheels on the return valves with a Uponor PRO 1" Actuator.



Thanks to this modular concept, the Uponor PRO 1" allows for easy manual push-in connection of manifold bases and tool-free reconfiguration for various connection options.



Easy to assemble, quick and practical:
The Uponor PRO1" Manifold is supplied as a set with supply and return segments and three, four or six outlets.

Individual segment sets with special plastic threads on the primary side allows the Uponor PRO 1" Manifolds to be extended afterwards to any length without any tools.



Uponor PRO 1" Basic Kit

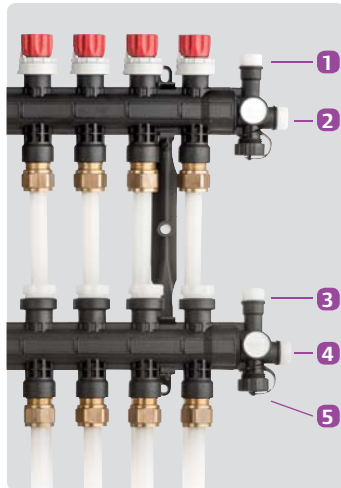
The basic kit contains the components common to most of the manifold combinations, i.e. brackets, end caps, 2 thermometers and connection pipes with metal swivel nuts for connection of shut-off valves.



Uponor PRO 1" Elbow Connection

With the Uponor PRO 1" Elbow Connection you can connect supply/return pipes to Uponor modular plastic manifold from the bottom. It is made of fibreglass reinforced polyamid and works at operating temperatures up to 60°C and max. operating pressure up to 6 bar.

Uponor PRO 1" components



End caps

The end caps have valve and hose connector for filling and a venting valve. When the wheel on the end cap is fully screwed in, the hose connector is closed.

- 1 venting valve
- 2 shut-off for by-pass (outlet when filling)
- 3 aeration connection for by-pass (remove the aeration valve when connecting by-pass)
- 4 shut-off for outlet
- 5 drain with cover (connection for filling pipe)



Uponor PRO 1" Flow Meter

The flow meter, which is graduated up to 4 l/min, is also supplied with flow meter instead of valves.

If the sight glasses should become dirty following a prolonged period of use, they can easily be cleaned without having to drain the system.



Uponor PRO 1" Actuator

To achieve ideal comfort, we recommend electronic room controls with room thermostats. The wheels on the return manifold are then replaced by actuators. Once the wheel has been removed, the actuator can be fitted by hand (without tools).

The actuator has an indicator window on the front, which shows whether the underfloor heating loop in question is open or closed. When the power is on and the valve/loop is open, a white indicator is visible in the window. When the power is off, the valve closes and the indicator drops below the indicator window. The actuator is suitable for operation in an ambient temperature of a maximum of 50°C.

Each loop should be supplied with a mark plate where loop number, room designation and similar information can be noted. A flap in the actuator packaging has been designed to enable it to be used as a simple mark plate, installed between manifold and actuator.

Technical data

Type	Item no.	Unit
Uponor PRO 1" Manifold (LS) 1- Port	1042420	pair
Uponor PRO 1" Manifold (LS) 3- Port	1030580	pair
Uponor PRO 1" Manifold (LS) 4- Port	1030581	pair
Uponor PRO 1" Manifold (LS) 6- Port	1030582	pair
Uponor PRO 1" Manifold (FM) 1- Port	1042471	pair
Uponor PRO 1" Manifold (FM) 3- Port	1030583	pair
Uponor PRO 1" Manifold (FM) 4- Port	1030584	pair
Uponor PRO 1" Manifold (FM) 6- Port	1030585	pair
Uponor PRO 1" Basic Kit G1	1009209	piece
Uponor PRO 1" Basic Kit Type 2	1046882	set
Uponor Ball Valve, G1-G1	1032701	pair
Uponor Manifold Balancing Valves	1005100	set
Uponor PRO 1" Actuator 230 V, M30 x1.5 male NC	1005605	piece
Uponor PRO 1" Actuator 24 V, M30 x 1.5 male NC	1000138	piece
Uponor PRO 1" Elbow Connection	1032702	pair
Uponor PRO 1" Distance Set	1009215	piece
Uponor PRO 1" Hose Connection, G3/4 x 1/2	1009214	piece
Uponor PRO 1" Flow Meter, 4 l/min	1009217	piece
Uponor PRO 1" Valve Tool	1009216	piece
Uponor Overflow Valve, a=225 mm	1046884	piece

Material Fibre-reinforced polyamide

Max. operation temperature 60°C

Max. operation pressure 6 bar

Max. total flow per manifold 1 l/s

KVS 1.1



Uponor PRO 1" Manifold side view



Uponor PRO 1" Manifold front view



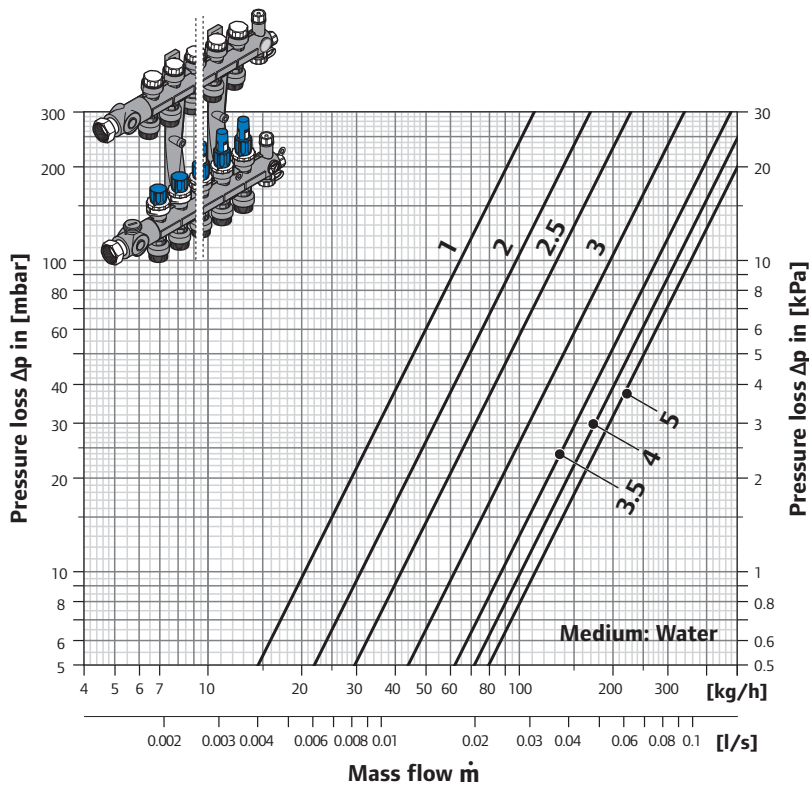
The distance between return and supply manifold is adapted for direct connection to Uponor Push 23 and other pumpgroups

Uponor PRO 1" Manifold technical data - Balancing

To balance each individual underfloorheating loop, close the valve on the supply manifold (clockwise) and lift and turn a setting ring, graduated 0.5 – 5. Once the required setting value appears in the centre of the black indicator line on the manifold neck, press the ring down. The valve will then open as far as the stop lug on the limiting ring.

If the supply valves have been replaced with flow meters, adjust these instead until all flows correspond to those calculated. The setting ring can subsequently be used to prevent any loop opening too far.

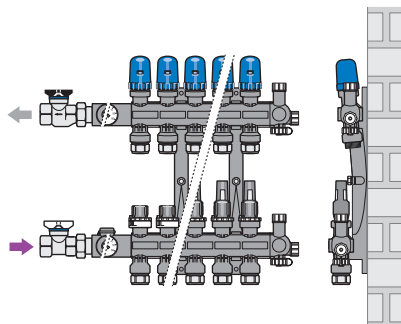
The flow through the by-pass can be reduced or shut off using the supply line's filling valve.



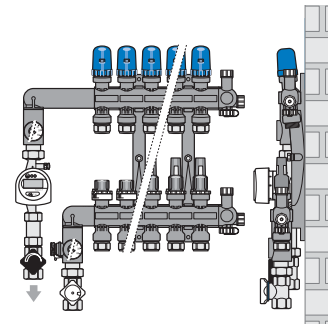
Valve presetting diagram (number of turns) for regulating and balancing valves in Uponor PRO 1" Manifolds

Connection examples

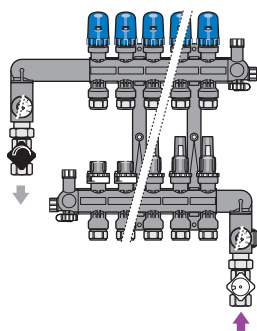
The Uponor PRO 1" Manifold can be installed quickly with few tools. An extensive range of accessories supports easy installation in almost any situation.



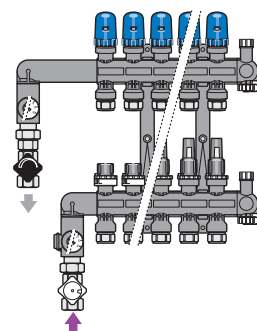
Lateral connection



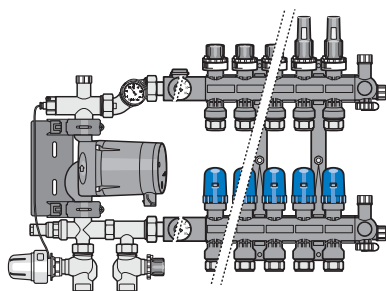
With heat meter - installed vertically



Connection both sides from below



Connection one side from below



Uponor PRO 1" Manifold with Uponor Push 23A

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Uponor reserves the right to make changes, without prior notification, to the specification of incorporated components in line with its policy of continuous improvement and development.