MANIFOLDS & WATER TEMPERATURE CONTROL

Manifolds

Essentially the manifold allows for every loop of UFH pipe in a building to be connected to and from the manifold in a single continuous length with no fittings in between, completely removing the possibility of joint leaks. If there is a fault with an individual circuit or maintenance is required that circuit can simply be turned 'off '.

The Maincor UFH manifolds are available in various sizes which range from 1 to 12 ports. The manifolds have 1" connections on the main in/outlets and have ¾" Eurocone connections for the UFH Pipe. The flow manifold (top header) includes balancing valves for flow regulation and a red locking ring to avoid unwanted changes following system commissioning. On the return manifold (bottom bar) isolation valves are fitted that come with white plastic caps which (when fitted), allow manual isolation over the circuit. The white caps can be removed if required and thermal actuators can be fitted which will allow automatic control over circuits when used in conjunction with thermostats and a wiring centre. Fill / drain points and manual airvents are also included on the flow and return manifolds.

A two port manifold is 185mm wide and for every additional port above this size, add on 50mm to the width.

Inlet size:	1"
Outlet connectors:	Manifold Pipe Connector
Outlet centre:	50mm
Ports:	Options 1 - 12 ports
Isolation:	Each port has an isolation tap
Max operating Pressure:	6 bar
Max Operating Temp:	70°C

Technical Data

Manifold bar made of Stainless Steel AISI304

Manifold components made of Brass UNI-EN12164 CW614N

Flow meters with body made of PPA techno polymer

Supply manifold with adjustable flow meters range from 0 to 5 l/min, accuracy 10%

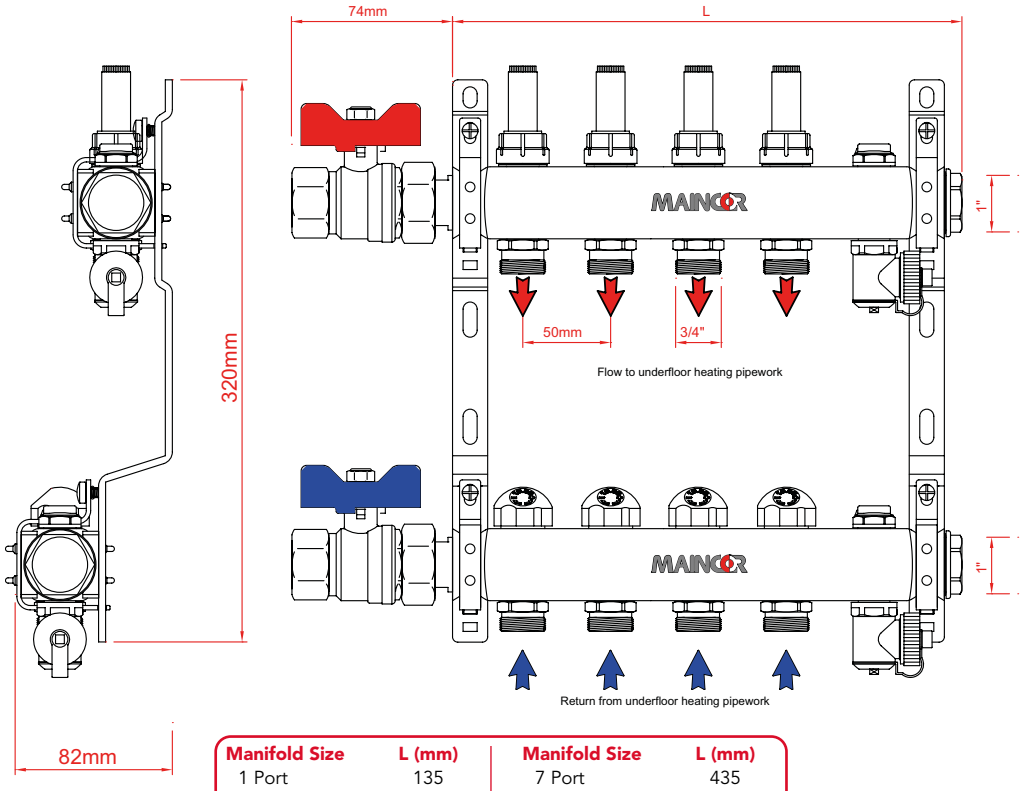
Return manifold with isolation valve, suitable for installation of actuators (M30 x 1.5)

Maximum test pressure 10 bar

Maximum glycol percentage 30%

KV factors in wide open conditions: supply manifold KV=1.2; return manifold KV=2.8; supply and return manifolds KV=0.84

Made in Italy



Manifold Size	L (mm)	Manifold Size	L (mm)
1 Port	135	7 Port	435
2 Port	185	8 Port	485
3 Port	235	9 Port	535
4 Port	285	10 Port	585
5 Port	335	11 Port	635
6 Port	385	12 Port	685

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Underfloor Heating Manifold Locations

Manifolds should be located centrally in the building if possible. It is important to ensure that there is good access for maintenance or in the event of a problem. In domestic situations good locations would be underneath stairs, at the back of a kitchen cupboard, or in an airing cupboard on the first floor. If there is a requirement to hide them away, then Manifolds can be located inside stud walls behind an access hatch, or inside a dedicated cabinet.

When locating a manifold consideration needs to be given to minimise the amount of uncontrolled heating from pipes passing through rooms en route to other areas.

Connecting a Manifold

The manifolds have 1" connections on the main in/outlets and have ¾" Eurocone connections for the UFH Pipe.

Prior to fitting the connectors to the manifold the pipe is to be bevelled by inserting the bevelling tool and rotating the tool three full turns. This will put a 45° chamber on the pipe and the pipe will be ready to take the fitting.

When installing underfloor heating systems ensure that all relevant health and safety legislation and local site regulations are fully adhered to at all times.

1. *Cut the pipe at a 90° angle.*

2. *Bevel the cut end of the pipe. (applies to MLC Pipes only)*

3. *Check to ensure there are no burrs.*

4. *Place the nut and olive onto the pipe.*

5. *Push the fitting into the bevelled end of the pipe.*

6. *Tighten the fitting onto the manifold outlet using a manifold spanner.*

Always check the inside of the pipe after bevelling to ensure there is no plastic waste from the bevelling process present. If using a drill when bevelling the pipe, ensure the max revolutions are less than 500/min and allow tooling to cool between each procedure.

If PE-RT pipe is used it is not necessary to bevel the pipe.