Compact manifolds

550 series

01355/24
replaces 01355/19 EN

Function

The compact manifolds are used in heating systems to allow different heat settings in the various rooms when there is only one heat generator.
The various configurations are compact, and can be easily fitted in any kind of hydraulic circuit, with the advantages of ease of installation and a saving of useful living space. The manifolds have pre-formed shell insulation to guarantee perfect thermal insulation.

Product range

Code 550220	Manifold for heating system 2	DN 25; main connections 1 1/2” M; outlets: 1 1/2” F with nut (centre distance 125 mm)
Code 550230	Manifold for heating system 3	DN 25; main connections 1 1/2” M; outlets: 1 1/2” F with nut (centre distance 125 mm)
Code 550240	Manifold for heating system 4	DN 25; main connections 1 1/2” M; outlets: 1 1/2” F with nut (centre distance 125 mm)
Code 550221	Manifold for heating system 2+1	DN 25; main connections 1 1/2” M; outlets: 1 1/2” F with nut (centre distance 125 mm)
Code 550205	Hydraulic separator	DN 25; connections 1 1/2” F with nut (centre distance 125 mm)
Code 550320	Manifold for heating system 2	DN 32; main connections 2” M; outlets: 1 1/2” F with nut (centre distance 125 mm)
Code 550330	Manifold for heating system 3	DN 32; main connections 2” M; outlets: 1 1/2” F with nut (centre distance 125 mm)
Code 550340	Manifold for heating system 4	DN 32; main connections 2” M; outlets: 1 1/2” F with nut (centre distance 125 mm)
Code 550305	Hydraulic separator	DN 32; connections 2” M with nut (centre distance 125 mm)

Manifold technical specifications

Materials

Body:	painted steel
Maximum working pressure:	6 bar
Working temperature range:	5–110 °C
Max. recommended flow rate:	4 m³/h (DN 25)
	9 m³/h (DN 32)
Medium:	water; non-hazardous glycol solutions
Main connections:	1 1/2" M (DN 25)
	2" M (DN 32)
Outlet connections:	1 1/2" F with captive nut (ISO 228-1)
Centre distance:	125 mm

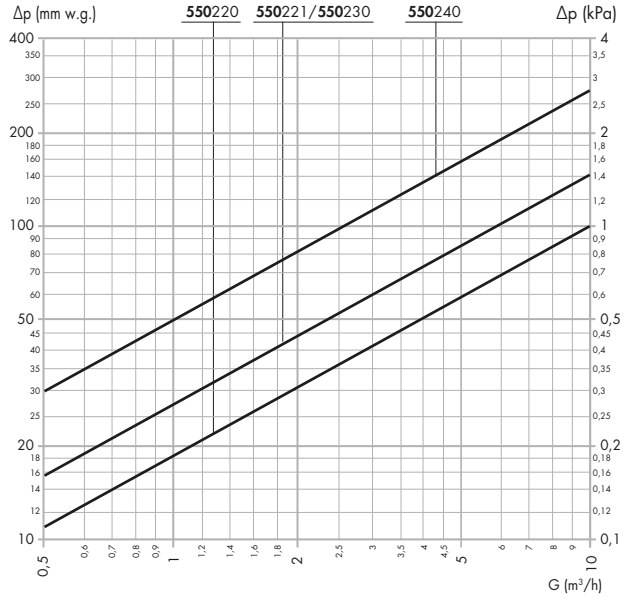
Hydraulic separator

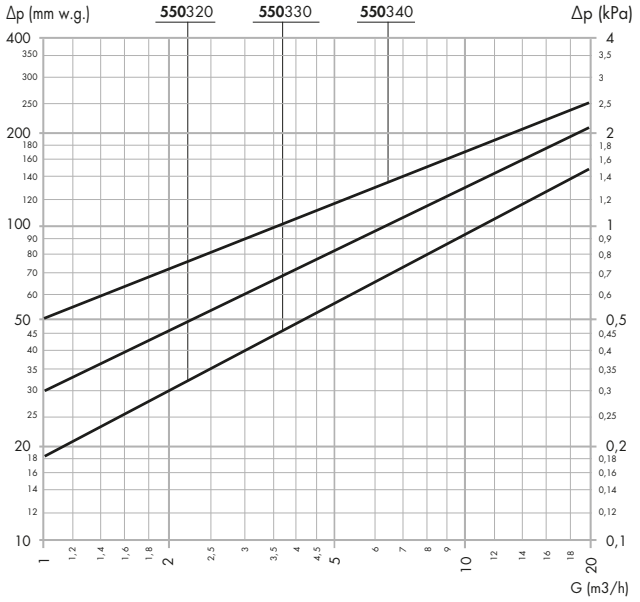
Connections:	1 1/2" F with captive nut (ISO 228-1) (code 550205)
	2" F with captive nut (ISO 228-1) (code 550305)
Centre distance:	125 mm

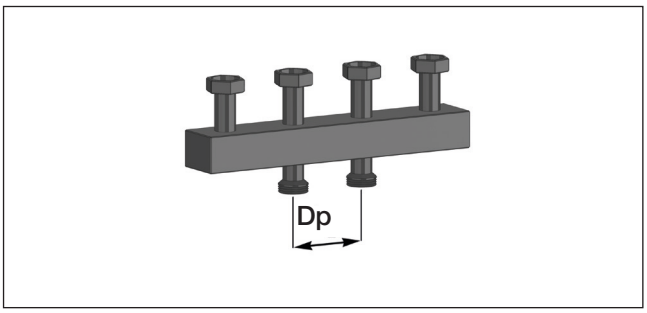
Insulation

Material:	EPP
Thickness:	30 mm
Density:	45 kg/m³
Thermal conductivity:	0,037 W/(m·K) at 10 °C
Reaction to fire (UL94):	HBF class

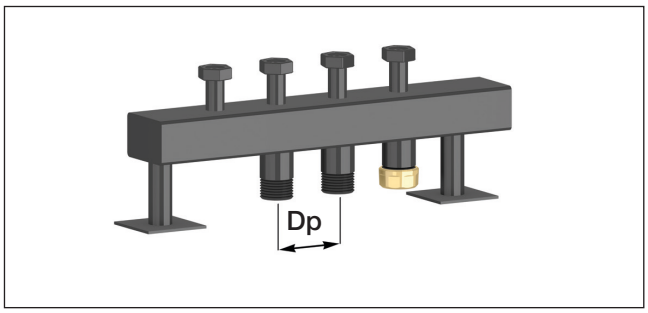
Hydraulic characteristics







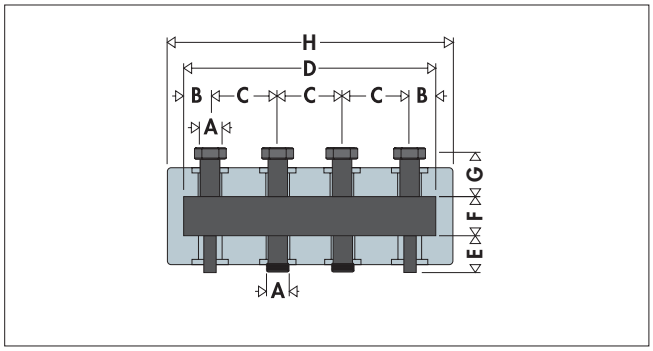
The pressure drop values indicated correspond to a condition of even flow rate distribution across the outlets.



The pressure drop values indicated correspond to a condition of even flow rate distribution across the outlets.

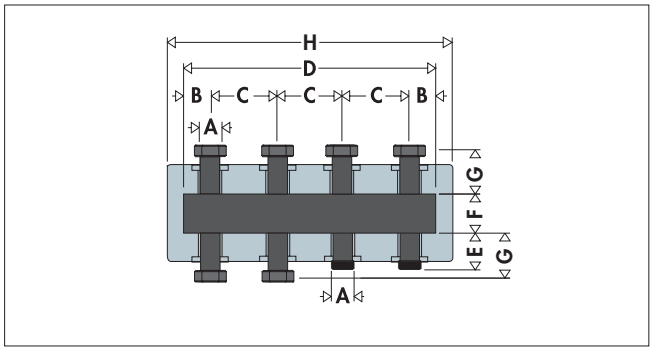
Dimensions

DN 25



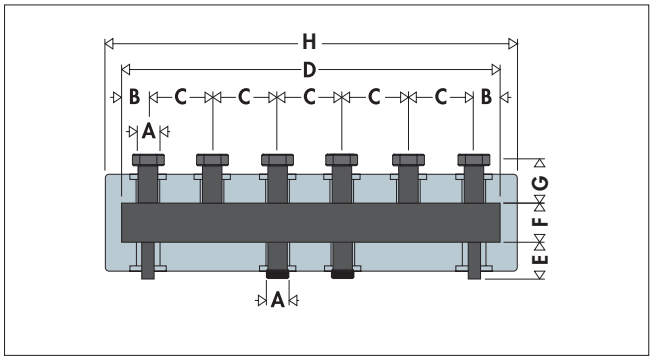
Code	A	B	C	D	E
550220	1 1/2"	50	125	475	50

F	G	H	Volume (l)	Mass (kg)
60	67,5	545	2,5	7,29



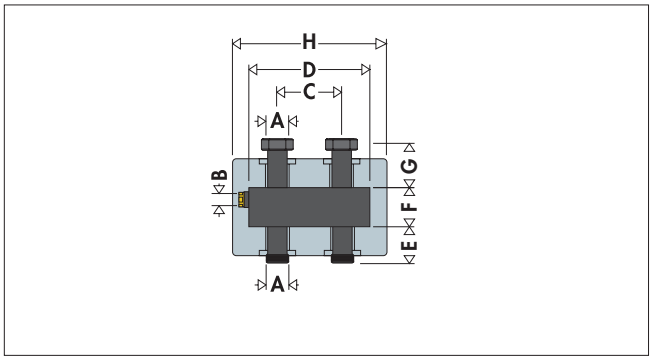
Code	A	B	C	D	E
550221	1 1/2"	50	125	475	50

F	G	H	Volume (l)	Mass (kg)
60	67,5	545	2,5	8,43



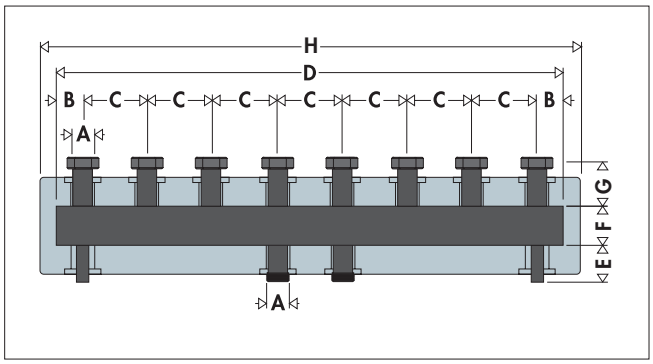
Code	A	B	C	D	E
550230	1 1/2"	50	125	725	50

F	G	H	Volume (l)	Mass (kg)
60	67,5	795	3,5	8,43



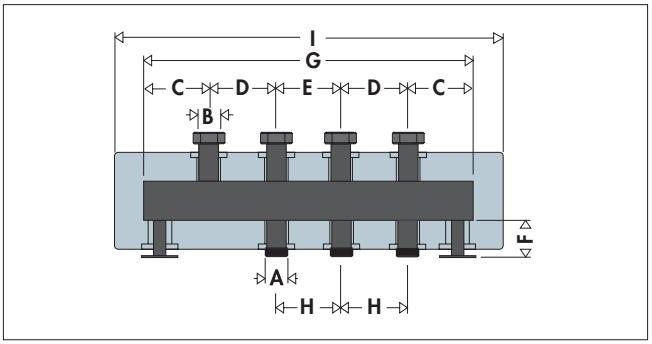
Code	A	B	C	D	E
550205	1 1/2"	1/2"	125	210	42

F	G	H	Volume (l)	Mass (kg)
60	67,5	280	1,2	6,23



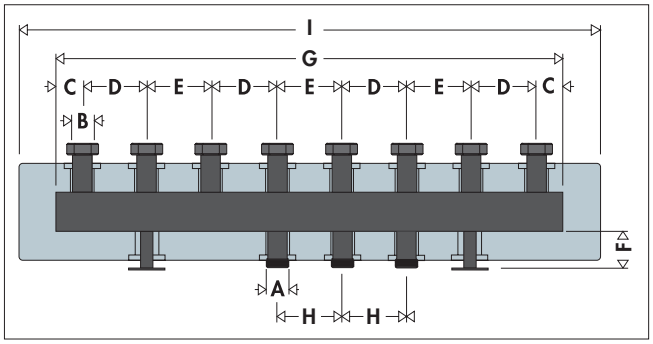
Code	A	B	C	D	E
550240	1 1/2"	50	125	925	50

F	G	H	Volume (l)	Mass (kg)
60	67,5	1045	5	11,87



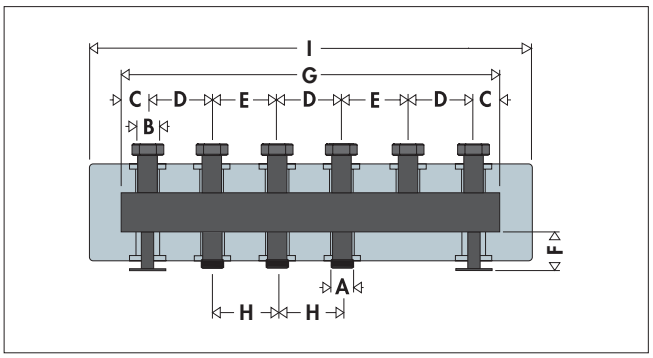
Code	A	B	C	D	E
550320	2"	1 1/2"	147,5	125	130

F	G	H	I	Volume (l)	Mass (kg)
120	675	125	835	6,4	21



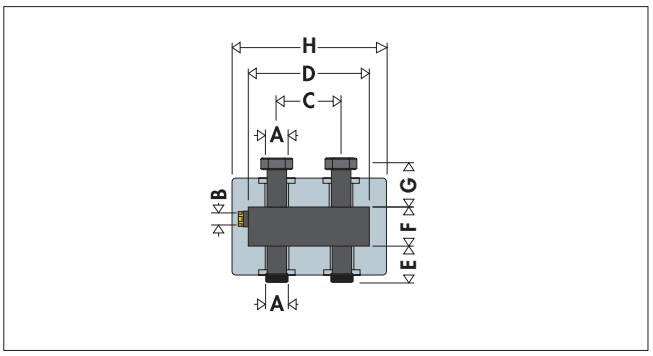
Code	A	B	C	D	E
550340	2"	1 1/2"	42,5	125	130

F	G	H	I	Volume (l)	Mass (kg)
120	975	125	1145	9,3	29



Code	A	B	C	D	E
550330	2"	1 1/2"	45	125	130

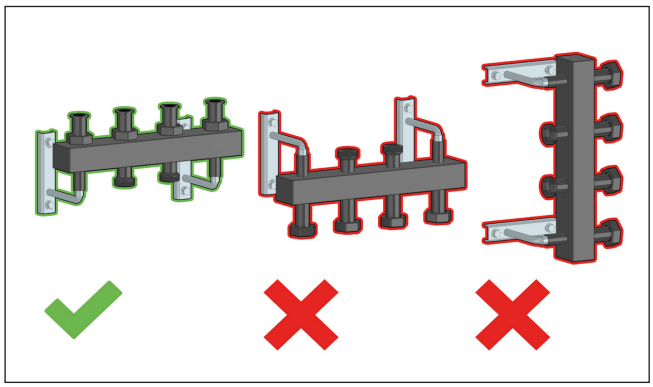
F	G	H	I	Volume (l)	Mass (kg)
120	725	125	895	7	24



Code	A	B	C	D	E
550305	2"	1/2"	125	210	85

F	G	H	Volume (l)	Mass (kg)
80	90	380	2,1	6,5

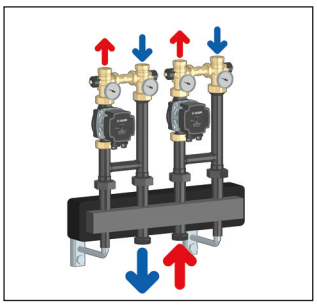
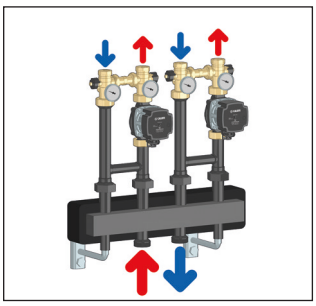
Installation



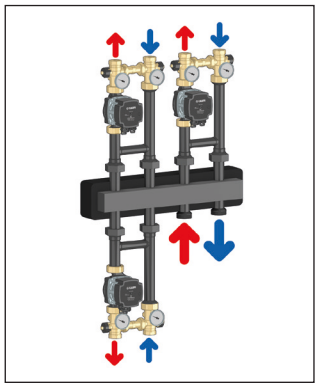
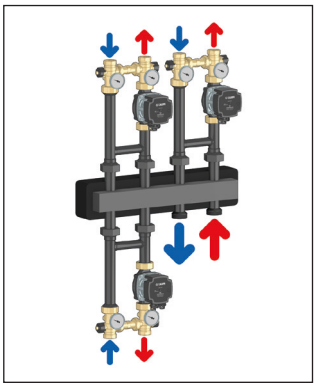
The centre distance of 125 mm makes it compatible with 165 series distribution units, 166 series thermostatic regulation units and 167 series motorised units.
550 series manifolds can be installed horizontally, but not upside down. They cannot be installed vertically.

550 series manifolds must be installed according to the diagrams shown, with attention to the flow and return pipe connections, for both the main connections and outlets with captive nuts.

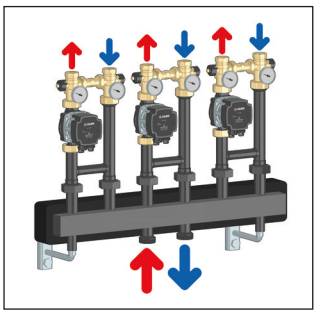
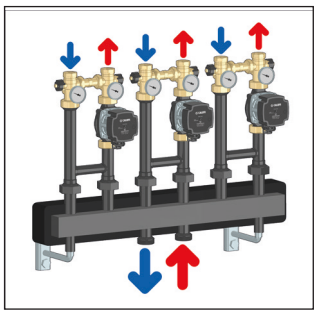
Code 550220

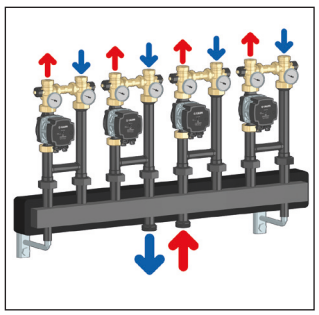
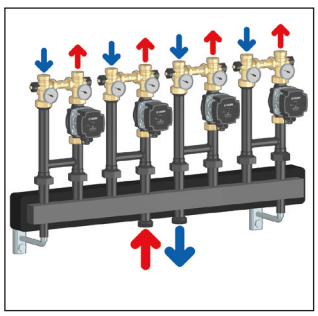
Code 550221

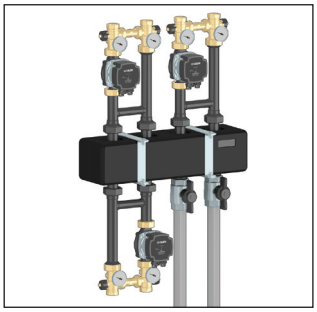



Code 550230

Code 550240

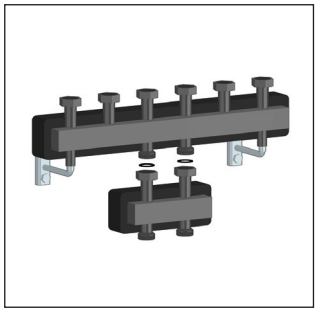





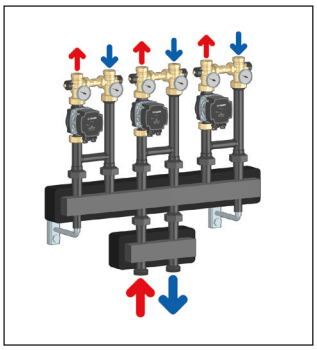
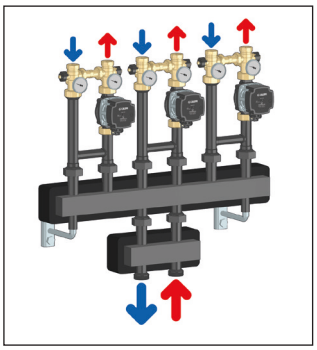
550 series manifolds have steel brackets for easy wall mounting.

Installation of hydraulic separator code 550205 (optional)

If there is a circulator on the primary circuit, it is possible to install the hydraulic separator code 555205 to make the main circuit independent from the secondary circuit.

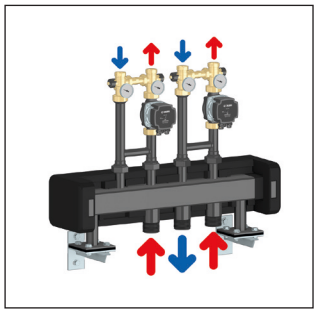


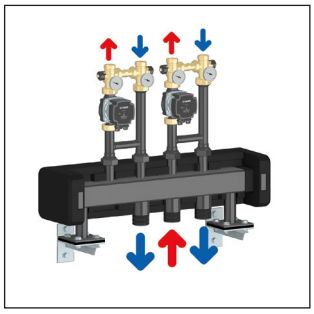

When installing the hydraulic separator, it is essential to comply with the flow direction shown in the figures below

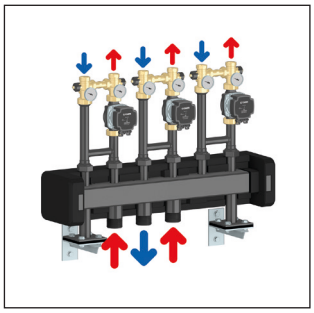
550 series manifolds must be installed according to the diagrams shown, with attention to the flow and return pipe connections, for both the main connections and outlets with captive nuts.

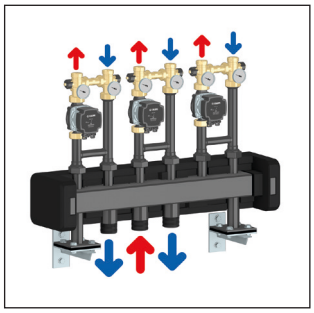
Code 550320



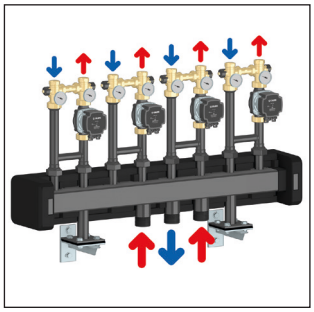


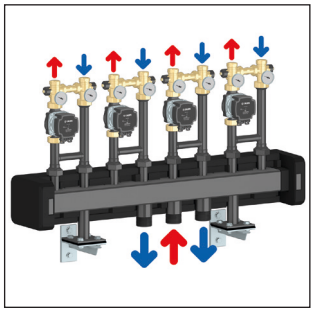
Code 550330



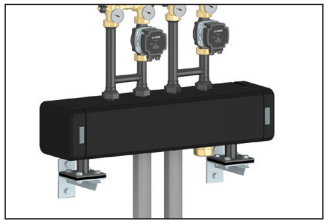


Code 550340



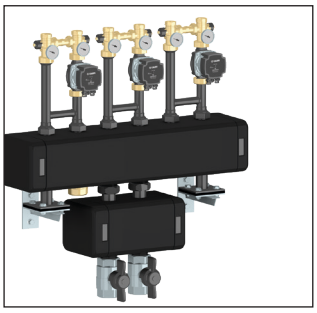


550 series manifolds have steel brackets for easy wall mounting.



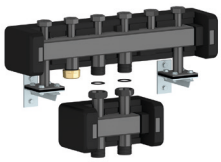
Installation of hydraulic separator code 550305 (optional)

If there is a circulator on the primary circuit, it is possible to install the hydraulic separator code 555305 to make the main circuit independent from the secondary circuit.

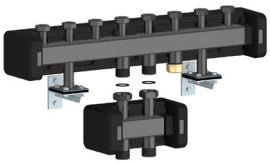


DN 32 - code 550320

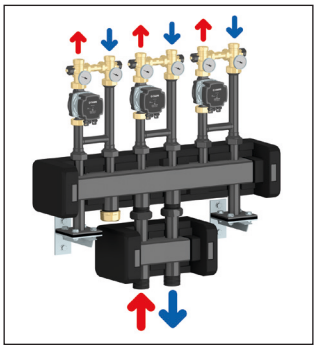
DN 32 - code 550330

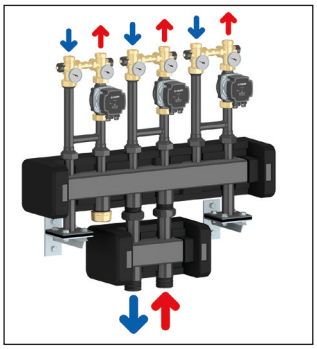


DN 32 - code 550340

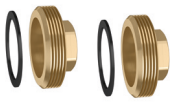


When installing the hydraulic separator, it is essential to comply with the flow direction shown in the figures below.





Accessories



559

Pair of plugs with seal
for not used outlets.

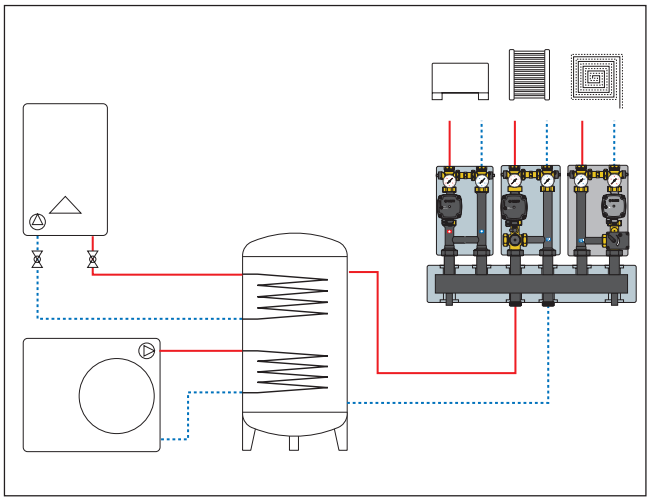
Code	
559001	1 1/2" M

559

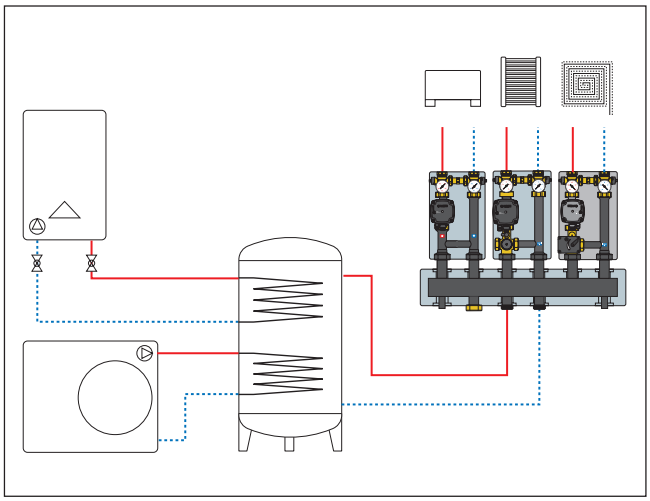
Pair of fittings with seal.

Code	
559002	1 1/2" M x 1" M

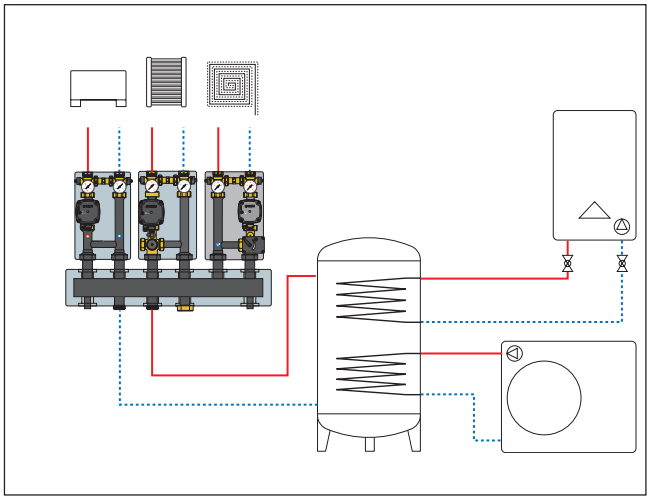
Application diagram, DN 25



Application diagram, DN 32
Primary connection from left



Application diagram, DN 32
Primary connection from right



SPECIFICATION SUMMARY

Code 550220
Compact DN 25 manifold for heating systems with 2 outlets. Painted steel body. Main connections 1 1/2" M, centre distance 125 mm. Outlet connections 1 1/2" F with nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 4 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 550230
Compact DN 25 manifold for heating systems with 3 outlets. Painted steel body. Main connections 1 1/2" M, centre distance 125 mm. Outlet connections 1 1/2" F with nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 4 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 550240
Compact DN 25 manifold for heating systems with 4 outlets. Painted steel body. Main connections 1 1/2" M, centre distance 125 mm. Outlet connections 1 1/2" F with nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 4 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 550221
Compact DN 25 manifold for heating systems with 2+1 outlets. Painted steel body. Main connections 1 1/2" M, centre distance 125 mm. Outlet connections 1 1/2" F with nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 4 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 550205
DN 25 hydraulic separator for heating systems, painted steel body. Main connections 1 1/2" M, centre distance 125 mm. Outlet connections 1 1/2" F with captive nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 4 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 550320
Compact DN 32 manifold for heating systems with 2 outlets. Painted steel body. Main connections 2" M, centre distance 125 mm. Outlet connections 1 1/2" F with nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 9 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 550330
Compact DN 32 manifold for heating systems with 3 outlets. Painted steel body. Main connections 2" M, centre distance 125 mm. Outlet connections 1 1/2" F with nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 9 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 550340
Compact DN 32 manifold for heating systems with 4 outlets. Painted steel body. Main connections 2" M, centre distance 125 mm. Outlet connections 1 1/2" F with nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 9 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 550305
DN 32 hydraulic separator for heating systems, painted steel body. Main connections 2" M, centre distance 125 mm. Outlet connections 2" F with captive nut, centre distance 125 mm. Medium water and glycol solutions, maximum percentage of glycol 30 %. Maximum working pressure 6 bar. Working temperature range 5–110 °C. Max. recommended flow rate 9 m^3/h. Insulation in expanded closed-cell PEX, thickness 30 mm, density 45 kg/m^3. Steel brackets.

Code 559001
Pair of plugs with seal for not used outlets. Size 1 1/2" M.

Code 559002
Pair of fittings with seal. Size 1 1/2" M x 1" M.

We reserve the right to make changes and improvements to our products and the related technical data in this publication, at any time and without prior notice. The www.caleffi.it always has the most up-to-date version of the document, which should be used for technical verifications.

CALEFFI Hydronic Solutions

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