R583S, R583M, R583V

Modular delivery and return manifolds

Radiant Systems

Datasheet
1110EN 02/2024

R583S

R583M

R583V

Brass modular manifolds for HVAC systems, available in three versions:
- **R583S** delivery manifolds with balancing lockshields.
- **R583M** delivery manifolds with flow meters (dual-scale: 0,5÷5 l/min and 0,15÷1,5 GPM) with fluid regulation/shutting off.
- **R583V** return manifolds with shut-off valves with handwheel, preset for thermo-electric actuator.

Metal supports, end pieces, ball valves and metal cabinet to complete the manifold are available on request.

Versions and product codes

SERIES	PRODUCT CODE	CONNECTIONS MANIFOLD x OUTLETS	N. OF OUTLETS
R583S Delivery manifolds with regulation lockshields	R583SY112	G 1" x 3/4"E	2
	R583SY113		3
	R583SY114		4
R583M Delivery manifolds with flow meters	R583MY112	G 1" x 3/4"E	2
	R583MY113		3
	R583MY114		4
R583V Return manifolds with handwheel	R583VY112	G 1" x 3/4"E	2
	R583VY113		3
	R583VY114		4

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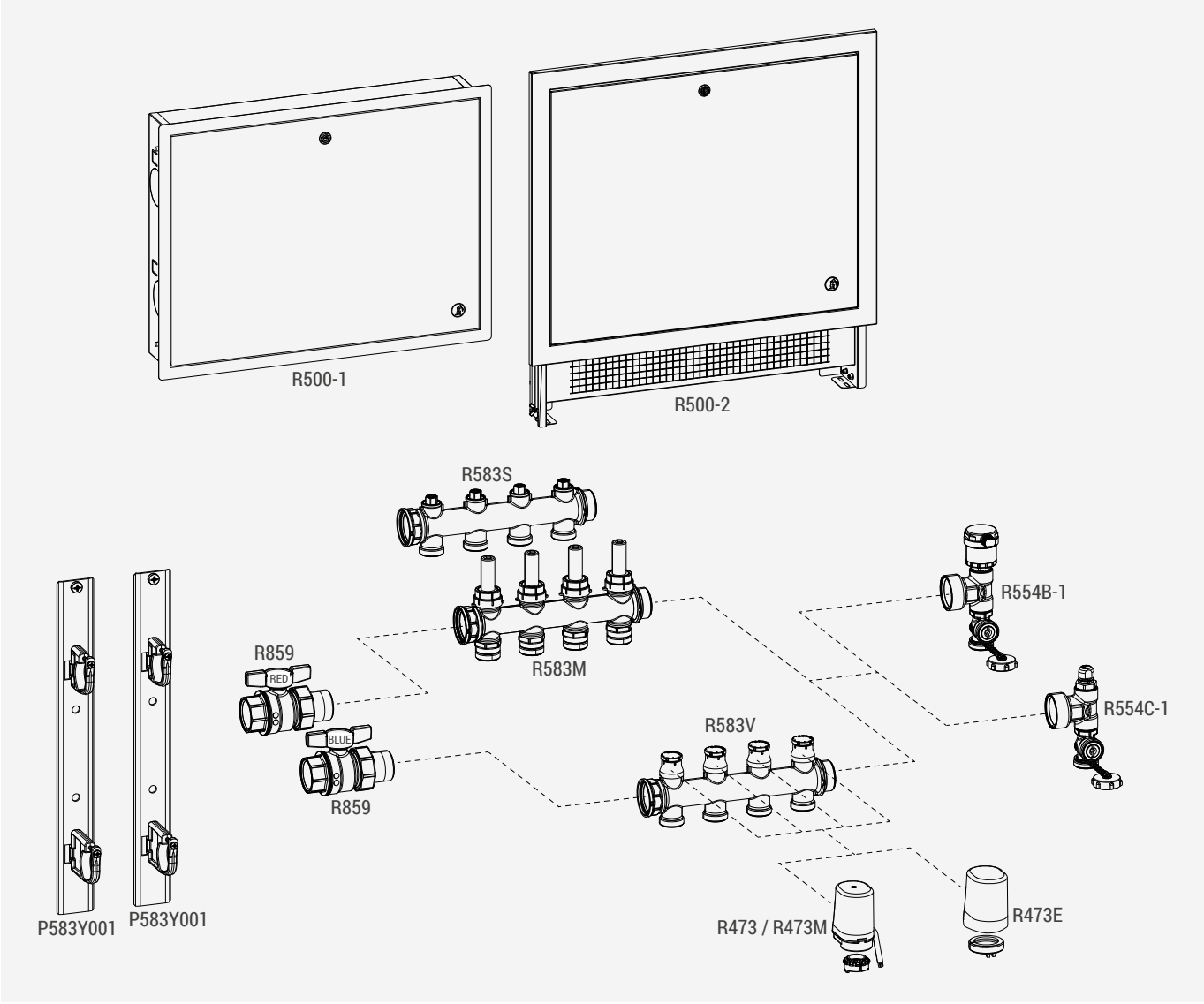
Optional

- **R500-1**: metal cabinet for flush-mount installation, 110÷120 mm adjustable depth
- **R500-2**: metal cabinet for flush-mount installation, 85÷130 mm adjustable depth
- **P583Y001**: metal support with plastic clip
- **R859**: chrome-plated brass shut-off ball valve with female-male tail piece
- **R554B-1**: manifold end piece, female thread, with automatic air vent valve and drain cock
- **R554C-1**: manifold end piece, female thread, with manual air vent valve and drain cock
- **R473**: normally-closed thermo-electric actuator, 2-conductor wire, IP40, 2,5 W
- **R473M**: normally-closed thermo-electric actuator, 4-conductor wire, with stroke-end microswitch, IP40, 2,5 W
- **R473E**: normally-closed thermo-electric actuator, 2-conductor wire, IP54, 1 W



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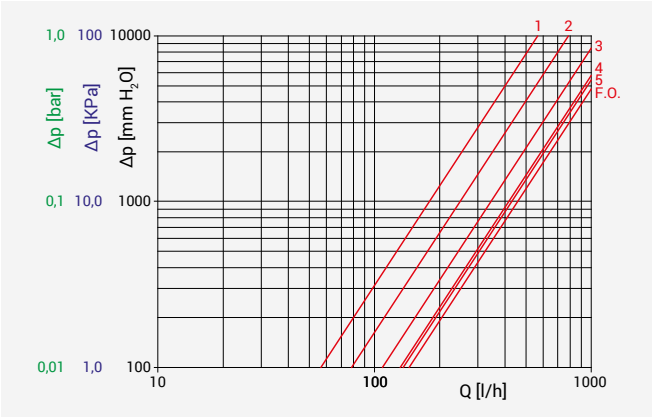
Technical data

R583S

- Fluids: water, glycol-based solutions (max 30 %)
- Temperature range: 5÷110 °C
- Max working pressure: 10 bar
- Center distance between outlets: 50 mm
- Balancing lockshields adjustable with 5-mm Allen Wrench (not included in the package)

Losses of pressure

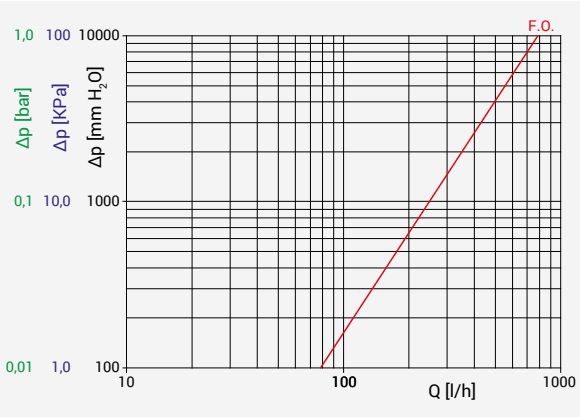


N. of turns of the lockshield	1	2	3	4	5	F.O.
Kv	0,56	0,78	1,10	1,33	1,37	1,44

R583M

- Fluids: water, glycol-based solutions (max 30 %)
- Temperature range: 5÷70 °C
- Max working pressure: 6 bar (10 bar for system testing)
- Center distance between outlets: 50 mm
- Dual-scale flow meters (0,5÷5 l/min and 0,15÷1,5 GPM) with fluid regulation/shutting off

Losses of pressure



N. of turns of the flow meter ring nut	F.O.
Kv	0,83

R583V

- Fluids: water, glycol-based solutions (max 30 %)
- Temperature range: 5÷110 °C
- Max working pressure: 10 bar
- Center distance between outlets: 50 mm
- Shut-off valves with handwheel, preset for thermo-electric actuator after installation of the appropriate ring nut adaptor

Materials

- Manifolds: UNI EN 12165 CW617N brass
- Self-sealing gaskets: EPDM

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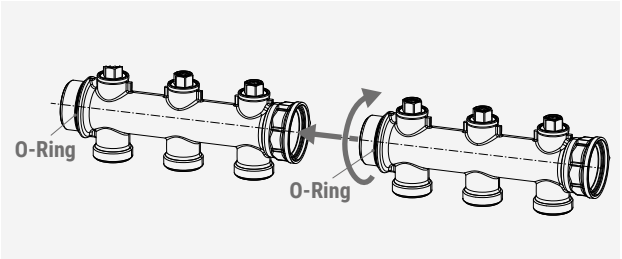
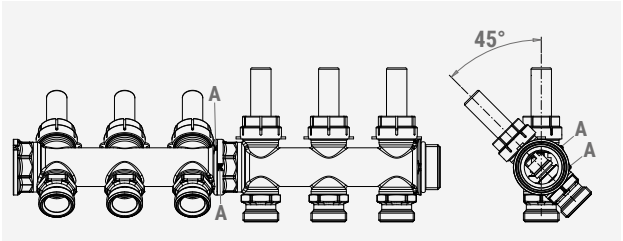
Installation

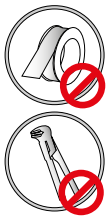
⚠ **WARNING.** Installation must be carried out by qualified operators according to the instructions provided.

⚠ **WARNING.** Before assembling the manifolds, lubricate the EPDM O-Ring with an appropriate lubricant.

The modular delivery and return manifolds, available with 2 or 4 outlets, are provided disassembled.
To connect them, screw one manifold to the other as far as it will go. Then it's possible to unscrew the manifold up to a maximum of 45° (1/8 turn) until the indicator notches stamped on the manifold are perfectly aligned.
The O-Ring on male thread, ensures proper sealing with no need to use hemp or PTFE.

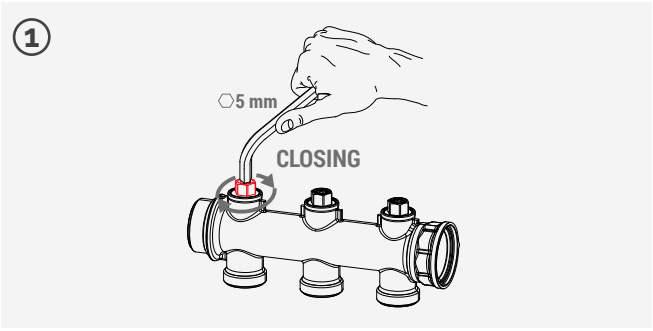


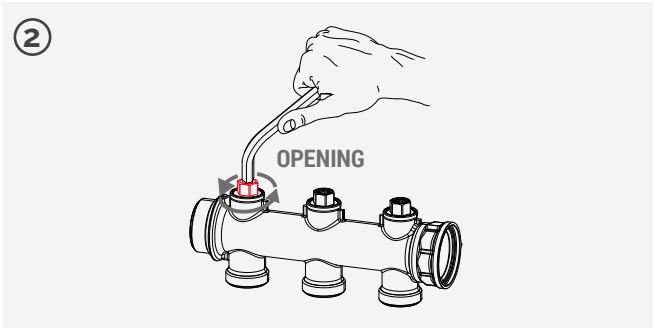




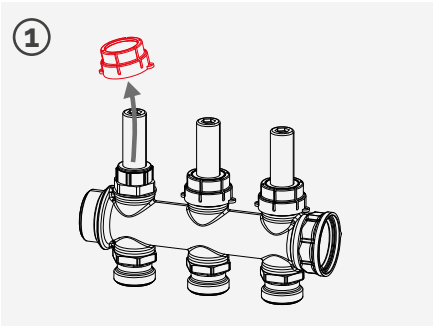
Regulating the system circuits

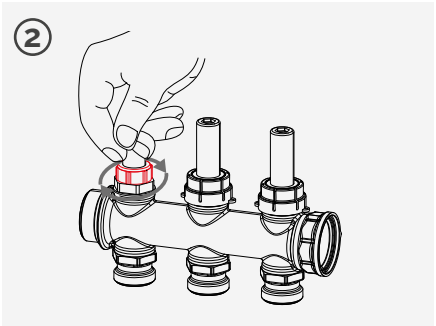
Regulating R583S delivery manifolds
The individual circuits must be regulated through the balancing lockshields.
To do so, follow the steps below:
1) Turn the lockshield all the way through in clockwise direction using a 5-mm Allen Wrench;
2) Turn the lockshield in counterclockwise direction till reaching the desired balancing value (which can be deduced from the diagram "Losses of pressure").

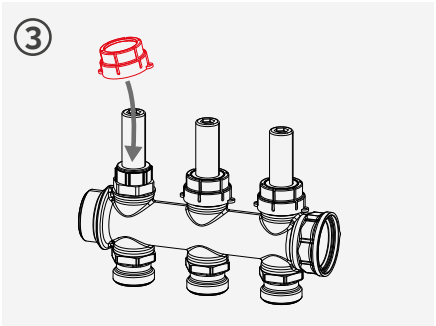




Regulating R583M delivery manifolds
The individual circuits must be regulated through the flow meters which also work as regulation lockshields.
To do so, follow the steps below:
1) Remove the red protection cap;
2) Manually turn in counterclockwise direction the black ring nut at the base of the flow meter to open the circuit or in clockwise direction to close it; the desired flow rate value is shown on the graduated scale of the flow meter;
3) Replace the red protection cap once the circuit has been regulated.







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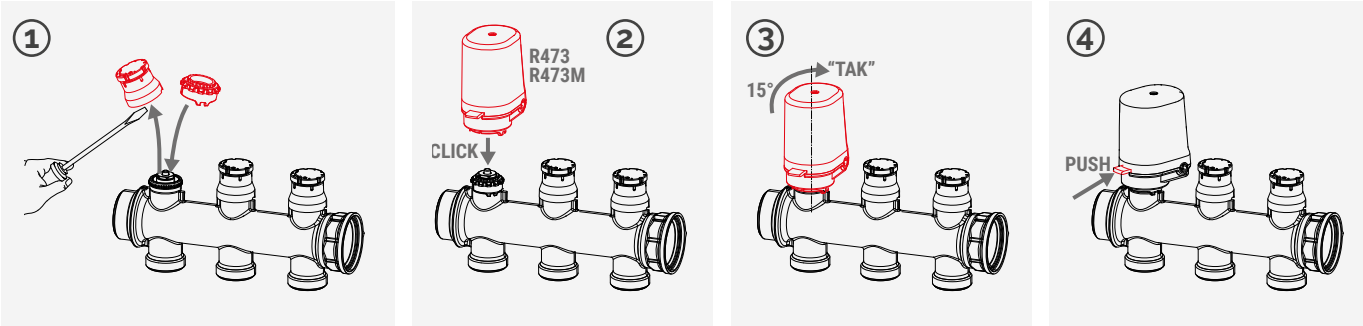
Regulating R583V return manifolds

The individual circuits on the return outlets can be regulated by turning the red handwheel to open the water port or by installing thermo-electric actuators.

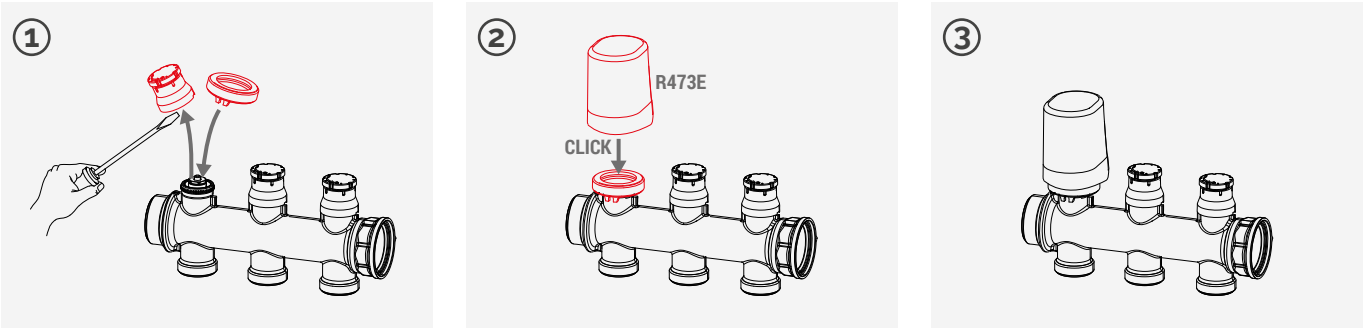
To install the R473/R473M normally-closed thermo-electric actuators, follow the steps below:

1) Remove the handwheel and place the ring nut included in the actuator package;
2) Press the thermo-electric actuator on the ring nut so as to assemble it properly;
3) Turn the thermo-electric actuator in clockwise direction by approx. 15° till it clicks into position (max tightening torque 5 Nm). To remove the thermo-electric actuator turn it by 15° in counterclockwise direction;
4) Push the red block button inwards and wire the thermo-electric actuator carefully following the diagram of the instructions provided.



To install R473E normally-closed thermo-electric actuators, follow the steps below:

1) Remove the handwheel and place the ring nut included in the actuator package;
2) Press the thermo-electric actuator on the ring nut so as to assemble it properly;
3) Wire the actuator carefully following the diagram of the instructions provided.



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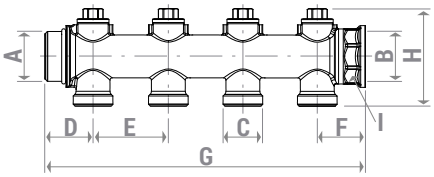
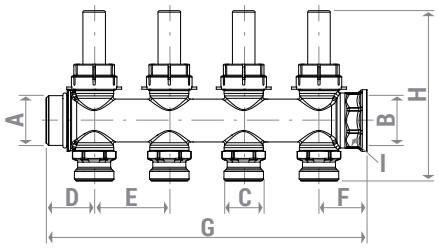
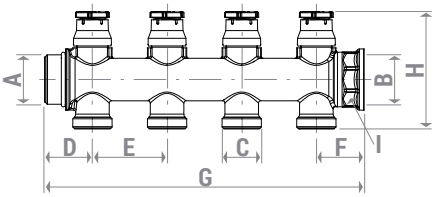
Dimensions



R583S



R583M



R583V

SERIES	PRODUCT CODE	N. OF OUTLETS	A	B	C	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]
R583S	R583SY112	2	G 1"M	G 1"F	3/4"E	32	50	32	114	65	wr.37
	R583SY113	3							164		
	R583SY114	4							214		
R583M	R583MY112	2	G 1"M	G 1"F	3/4"E	32	50	32	114	114	wr.37
	R583MY113	3							164		
	R583MY114	4							214		
R583V	R583VY112	2	G 1"M	G 1"F	3/4"E	32	50	32	114	79	wr.37
	R583VY113	3							164		
	R583VY114	4							214		

Product specifications

R583S

Modular delivery manifold with balancing lockshields for HVAC systems. Connections: G 1" x 3/4"E. Available with 2, 3 or 4 outlets. Center distance between outlets 50 mm. Temperature range: 5÷110 °C. Max working pressure: 10 bar. Body: UNI EN 12165 - CW617N brass; EPDM self-sealing gaskets.

R583M

Modular delivery manifold with flow meters (dual-scale: 0,5÷5 l/min and 0,15÷1,5 GPM) with fluid regulation/shutting off, for HVAC systems. Connections: G 1" x 3/4"E. Available with 2, 3 or 4 outlets. Center distance between outlets 50 mm. Temperature range: 5÷70 °C. Max working pressure: 6 bar (10 bar for system testing). Body: UNI EN 12165 - CW617N brass; EPDM self-sealing gaskets.

R583V

Modular return manifold with shut-off valves and handwheel, preset for thermo-electric actuator, for HVAC systems. Connections: G 1" x 3/4"E. Available with 2, 3 or 4 outlets. Center distance between outlets 50 mm. Temperature range: 5÷110 °C. Max working pressure: 10 bar. Body: UNI EN 12165 - CW617N brass; EPDM self-sealing gaskets.

Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

Package Disposal. Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

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Product Disposal. Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.

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