

R553F



Radiant
Systems

Pre-assembled brass manifold with flow meters

Datasheet
0101EN 10/2023



The R553F preassembled manifold consists of:

- Supply manifold with front balancing lockshield valves equipped with mechanical memory and flow meters scale 0,5÷5 L/min
- Return manifold with interception valves with manual handwheel, suitable for thermo-electric command.
- Metal brackets R588Z.
- Set of adhesive labels for identifying the various circuits.
- Spanner R558.

➤ Technical data

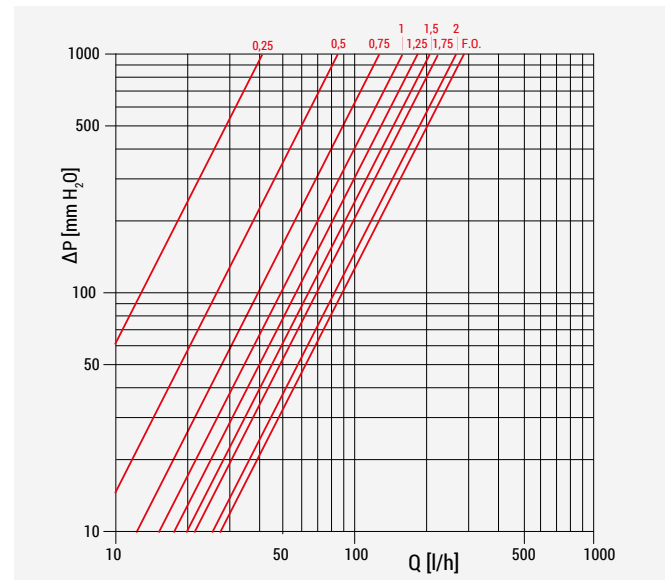
Performance

- Temperature range: 5÷110 °C
- Max. working pressure: 10 bar
- Outlets center distance: 50 mm

Materials

- Manifold: brass
- Gaskets: EPDM
- Brackets: galvanized steel

Pressure loss of single circuit



N° of lockshield turns	0,25	0,5	0,75	1	1,25	1,5	1,75	2	F.O
Kv	0,12	0,26	0,40	0,49	0,57	0,64	0,71	0,84	0,89

➤ Versions and product codes

PRODUCT CODE	CONNECTIONS MANIFOLD x OUTLETS	N° OF OUTLETS	CABINET *
R553FZY002	1" x B.18	2	R500Y111 R500Y221 R500Y215
R553FZY003		3	R500Y111 R500Y221 R500Y215
R553FZY004		4	R500Y112 R500Y222 R500Y215
R553FZY005		5	R500Y112 R500Y222 R500Y215
R553FZY006		6	R500Y112 R500Y222 R500Y215
R553FZY007		7	R500Y112 R500Y222 R500Y215
R553FZY008		8	R500Y113 R500Y223 R500Y217
R553FZY009		9	R500Y113 R500Y223 R500Y217
R553FZY010		10	R500Y113 R500Y223 R500Y217
R553FZY011		11	R500Y114 R500Y224 R500Y218
R553FZY012		12	R500Y114 R500Y224 R500Y218
R553FZY022		1-1/4" x B.18	2
R553FZY023	3		R500Y111 R500Y221 R500Y215
R553FZY024	4		R500Y112 R500Y222 R500Y215
R553FZY025	5		R500Y112 R500Y222 R500Y215
R553FZY026	6		R500Y112 R500Y222 R500Y215
R553FZY027	7		R500Y112 R500Y222 R500Y215
R553FZY028	8		R500Y113 R500Y223 R500Y217
R553FZY029	9		R500Y113 R500Y223 R500Y217
R553FZY030	10		R500Y113 R500Y223 R500Y217
R553FZY031	11		R500Y114 R500Y224 R500Y218
R553FZY032	12		R500Y114 R500Y224 R500Y218

PRODUCT CODE	CONNECTIONS MANIFOLD x OUTLETS	N° OF OUTLETS	CABINET *
R553FZY042	1" x 3/4"E	2	R500Y111 R500Y221 R500Y215
R553FZY043		3	R500Y111 R500Y221 R500Y215
R553FZY044		4	R500Y112 R500Y222 R500Y215
R553FZY045		5	R500Y112 R500Y222 R500Y215
R553FZY046		6	R500Y112 R500Y222 R500Y215
R553FZY047		7	R500Y112 R500Y222 R500Y215
R553FZY048		8	R500Y113 R500Y223 R500Y217
R553FZY049		9	R500Y113 R500Y223 R500Y217
R553FZY050		10	R500Y113 R500Y223 R500Y217
R553FZY051		11	R500Y114 R500Y224 R500Y218
R553FZY052		12	R500Y114 R500Y224 R500Y218

Flush-mounting cabinets for manifolds

SERIES	PRODUCT CODE	CABINETS DIMENSIONS (L x H x D) [mm]
R500-1 (flush-mounting)	R500Y111	400 x 460 x 110
	R500Y112	600 x 460 x 110
	R500Y113	800 x 460 x 110
	R500Y114	1000 x 460 x 110
R500-2 (flush-mounting)	R500Y221	400 x 650÷740 x 85÷130
	R500Y222	600 x 650÷740 x 85÷130
	R500Y223	800 x 650÷740 x 85÷130
	R500Y224	1000 x 650÷740 x 85÷130
	R500Y225	1200 x 650÷740 x 85÷130
R500-2E (flush with the wall)	R500Y215	500 x 450 x 80÷110
	R500Y217	700 x 450 x 80÷110
	R500Y218	850 x 450 x 80÷110

*NOTE. The cabinet is chosen keeping in consideration the size of the R554D intermediate fitting and R259D ball valve.

Components

Manifold

The supply manifold consists of a drawn brass bar in a special alloy, containing a balancing lockshield with mechanical memory for each circuit so that the calibration position in each one can be identified and maintained, even in the case of total interception.

The mechanical memory takes the form of a specific ring which, when regulated with the R558 spanner, limits the maximum opening of the lockshield to the value selected during the balancing phase.

To make the correct adjustment, fully open the metal ring using the screwdriver part of the R558 spanner, then close the lockshield fully down using the hexagonal part of the spanner.

Open the valve by the number of rotations determined via the calibration diagrams, then tighten the memory ring as far as it will go on the valve.

The flow meters allow you to immediately read the flow rate circulating in the individual circuits, thereby ensuring optimum balancing.

The return manifold is equipped with interception valves with a manual handwheel, suitable for thermo-electric command via the thermo-electric actuators R478, R478M (normally open) and R473, R473M (normally closed). The actuators are assembled by releasing the handwheel on the manifolds and thereby freeing the valve connection.

R588Z metallic brackets

Metal supports for use in R500-1 or R500-2 flush-mounting metal cabinets and in R500-2E metallic cabinets flush with the wall.

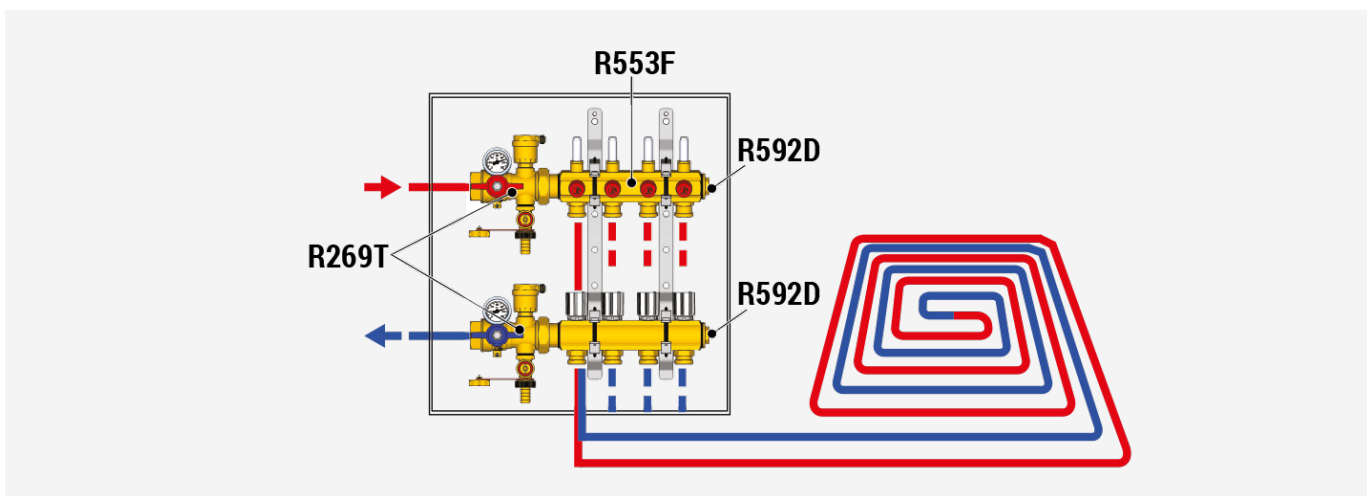
Adjustment key and adhesive labels

The kit is completed with a set of adhesive labels for the detection of the various circuits and an adjusting key for adjusting the holders.

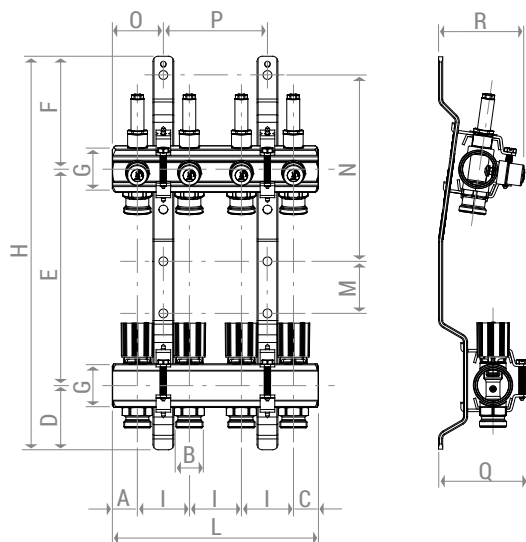
Installation

- 1) Install any ball valves and intermediate groups at the entrance of the manifold and the terminal groups or taps at the end of the manifold.
- 2) Install the manifold with the metal brackets inside the cabinet.
- 3) Connect the main pipes coming from the boiler room to the manifold connections and the pipes of the system to the manifold outlets.
For the connection use adaptors base 18 (R178, R179 or R179AM series) or Eurocone (R178E, R179E series).
- 4) Install and electrically connecting any electrical actuators in place of the handwheels on the return manifold.

Example of application scheme with radiant floor system



➤ Dimensions



PRODUCT CODE	N° OF OUTLETS	G x B	A [mm]	C [mm]	D [mm]	E [mm]	F [mm]	H [mm]	I [mm]	L [mm]	M [mm]	N [mm]	O [mm]	P [mm]	Q [mm]	R [mm]
R553FZY002	2									98				-		
R553FZY003	3									148				50		
R553FZY004	4									198				100		
R553FZY005	5									248				150		
R553FZY006	6									298				200		
R553FZY007	7	1" x B18	24	24	62	208	108	378	50	348	50	179	49	250	86	83
R553FZY008	8									398				300		
R553FZY009	9									448				350		
R553FZY010	10									498				400		
R553FZY011	11									548				450		
R553FZY012	12									598				500		
R553FZY022	2									98				-		
R553FZY023	3									148				50		
R553FZY024	4									198				100		
R553FZY025	5									248				150		
R553FZY026	6									298				200		
R553FZY027	7	1-1/4" x B18	24	24	66	208	104	378	50	348	50	179	49	250	88	88
R553FZY028	8									398				300		
R553FZY029	9									448				350		
R553FZY030	10									498				400		
R553FZY031	11									548				450		
R553FZY032	12									598				500		

PRODUCT CODE	N° OF OUTLETS	G x B	A [mm]	C [mm]	D [mm]	E [mm]	F [mm]	H [mm]	I [mm]	L [mm]	M [mm]	N [mm]	O [mm]	P [mm]	Q [mm]	R [mm]
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R553FZY043	3									148				50		
R553FZY044	4									198				100		
R553FZY045	5									248				150		
R553FZY046	6									298				200		
R553FZY047	7	1" x 3/4"E	24	24	62	208	108	378	50	348	50	179	49	250	86	83
R553FZY048	8									398				300		
R553FZY049	9									448				350		
R553FZY050	10									498				400		
R553FZY051	11									548				450		
R553FZY052	12									598				500		

Product specifications

R553F

Preassembled brass manifold for HVAC systems, with flow meters. Center distance between the outlets 50 mm. Temperature range 5÷110 °C. Max. working pressure 10 bar. Consisting of: supply manifold with front balancing lockshields equipped with mechanical memory and flow meters scale 0,5÷5 L/min. Return manifold with interception valves with manual handwheel, suitable for thermo-electric command. EPDM gaskets. R588Z metal brackets. Set of adhesive labels for identifying the various circuits. 1 adjustment key R558. Available with connection for base 18 or Eurocone adaptors..

⚠ 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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