

R553D



Radiant
Systems

Pre-assembled brass manifold

Datasheet
0106EN 04/2026



The R553D preassembled manifold consists of:

- Supply manifold with front balancing lockshield valves equipped with mechanical memory.
- 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

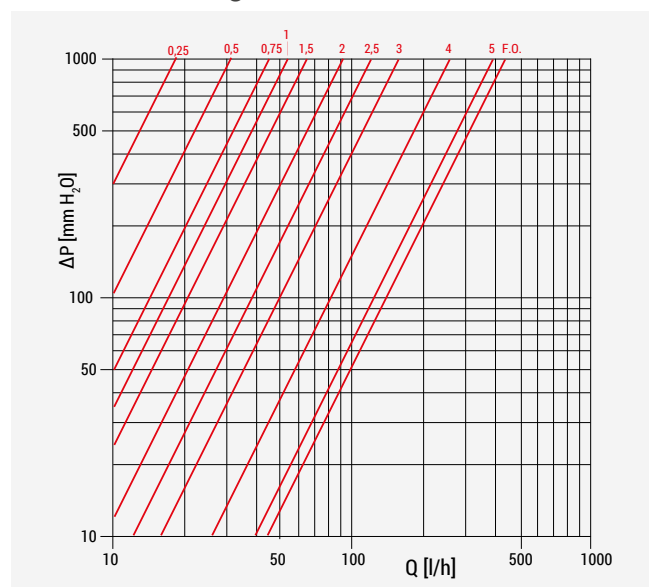
Performance

- Fluids of use: water with glycol for HVAC systems
- Max. glycol percentage: 30%
- Temperature range: 5÷110 °C
- Max. working pressure: 10 bar
- Outlets center distance: 50 mm

Materials

- Manifold: EN 12165 CW617N brass
- Gaskets: EPDM
- Brackets: galvanized steel

Pressure loss of single circuit



N° of lockshield turns	0,25	0,5	0,75	1	1,5	2	2,5	3	4	5	F.O.
Kv	0,06	0,10	0,14	0,17	0,21	0,28	0,37	0,55	0,85	1,20	1,33

➤ Versions and product codes

PRODUCT CODE	CONNECTIONS MANIFOLD x OUTLETS	N° OF OUTLETS	CABINETS *
R553ZY002	G 1" x B.18	2	R500Y111 R500Y221 R500Y231
R553ZY003		3	R500Y111 R500Y221 R500Y231
R553ZY004		4	R500Y112 R500Y222 R500Y232
R553ZY005		5	R500Y112 R500Y222 R500Y232
R553ZY006		6	R500Y112 R500Y222 R500Y232
R553ZY007		7	R500Y112 R500Y222 R500Y232
R553ZY008		8	R500Y113 R500Y223 R500Y233
R553ZY009		9	R500Y113 R500Y223 R500Y233
R553ZY010		10	R500Y113 R500Y223 R500Y233
R553ZY011		11	R500Y114 R500Y224 R500Y234
R553ZY012		12	R500Y114 R500Y224 R500Y234
R553ZY022	G 1-1/4" x B.18	2	R500Y111 R500Y221 R500Y231
R553ZY023		3	R500Y111 R500Y221 R500Y231
R553ZY024		4	R500Y112 R500Y222 R500Y232
R553ZY025		5	R500Y112 R500Y222 R500Y232
R553ZY026		6	R500Y112 R500Y222 R500Y232
R553ZY027		7	R500Y112 R500Y222 R500Y232
R553ZY028		8	R500Y113 R500Y223 R500Y233
R553ZY029		9	R500Y113 R500Y223 R500Y233
R553ZY030		10	R500Y113 R500Y223 R500Y233
R553ZY031		11	R500Y114 R500Y224 R500Y234
R553ZY032		12	R500Y114 R500Y224 R500Y234

PRODUCT CODE	CONNECTIONS MANIFOLD x OUTLETS	N° OF OUTLETS	CABINETS *
R553ZY042	G 1" x 3/4"E	2	R500Y111 R500Y221 R500Y231
R553ZY043		3	R500Y111 R500Y221 R500Y231
R553ZY044		4	R500Y112 R500Y222 R500Y232
R553ZY045		5	R500Y112 R500Y222 R500Y232
R553ZY046		6	R500Y112 R500Y222 R500Y232
R553ZY047		7	R500Y112 R500Y222 R500Y232
R553ZY048		8	R500Y113 R500Y223 R500Y233
R553ZY049		9	R500Y113 R500Y223 R500Y233
R553ZY050		10	R500Y113 R500Y223 R500Y233
R553ZY051		11	R500Y114 R500Y224 R500Y234
R553ZY052		12	R500Y114 R500Y224 R500Y234

Cabinets

SERIES	PRODUCT CODE	CABINETS DIMENSIONS (L x H x D) [mm]
R500-1 (flush-mounting)	R500Y111	400 x 460 x 120
	R500Y112	600 x 460 x 120
	R500Y113	800 x 460 x 120
	R500Y114	1000 x 460 x 120
R500-2 (flush-mounting)	R500Y221	400 x 650÷740 x 85÷140
	R500Y222	600 x 650÷740 x 85÷140
	R500Y223	800 x 650÷740 x 85÷140
	R500Y224	1000 x 650÷740 x 85÷140
	R500Y225	1200 x 650÷740 x 85÷140
R500-2C (flush with the wall)	R500Y231	400 x 650÷740 x 85÷140
	R500Y232	600 x 650÷740 x 85÷140
	R500Y233	800 x 650÷740 x 85÷140
	R500Y234	1000 x 650÷740 x 85÷140
	R500Y235	1200 x 650÷740 x 85÷140

⚠ ***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 valve 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 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 R500-2C metallic cabinets flush with the wall.

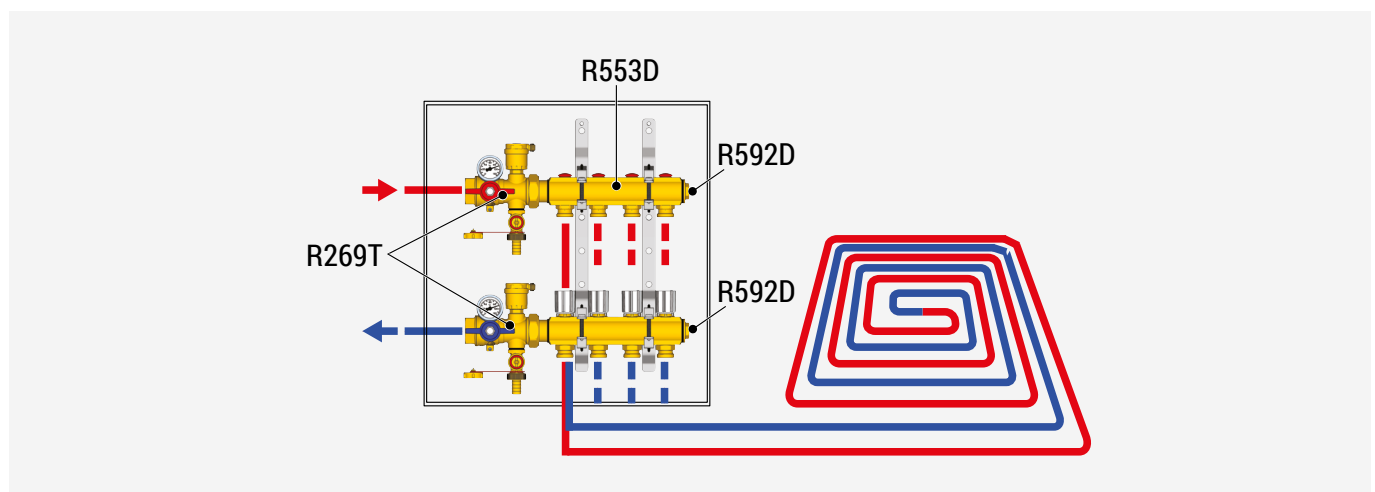
Adjustment key and adhesive labels

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.

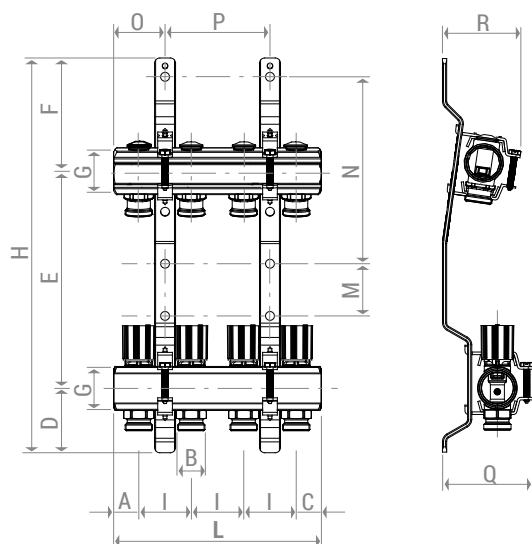
Installation

- 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]
R553ZY002	2									98				-		
R553ZY003	3									148				50		
R553ZY004	4									198				100		
R553ZY005	5									248				150		
R553ZY006	6									298				200		
R553ZY007	7	G 1" F x B.18	24	24	66	208	108	378	50	348	50	179	49	250	86	81
R553ZY008	8									398				300		
R553ZY009	9									448				350		
R553ZY010	10									498				400		
R553ZY011	11									548				450		
R553ZY012	12									598				500		
R553ZY022	2									98				-		
R553ZY023	3									148				50		
R553ZY024	4									198				100		
R553ZY025	5									248				150		
R553ZY026	6									298				200		
R553ZY027	7	G 1-1/4" F x B.18	24	24	66	208	104	378	50	348	50	179	49	250	88	85
R553ZY028	8									398				300		
R553ZY029	9									448				350		
R553ZY030	10									498				400		
R553ZY031	11									548				450		
R553ZY032	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]
R553ZY042	2									98				-		
R553ZY043	3									148				50		
R553ZY044	4									198				100		
R553ZY045	5									248				150		
R553ZY046	6									298				200		
R553ZY047	7	G 1" F x 3/4" E	24	24	62	208	108	378	50	348	50	179	49	250	86	81
R553ZY048	8									398				300		
R553ZY049	9									448				350		
R553ZY050	10									498				400		
R553ZY051	11									548				450		
R553ZY052	12									598				500		

► Product specification

R553D

Preassembled brass manifold for HVAC systems. Center distance between the outflow points 50 mm. Temperature range 5÷110 °C. Max. working pressure 10 bar.

Consisting of: supply manifold with front balancing lockshield equipped with mechanical memory. 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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♻ 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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