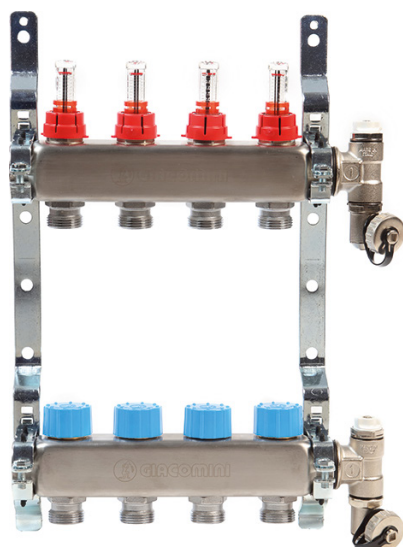


## Pre-assembled stainless steel manifold kit

Datasheet  
0939EN 10/2023



R553FS stainless steel preassembled manifold kit for HVAC systems, including:

- supply manifold with flow meters (double scale 0÷5 l/min and 0÷1,5 GPM) working as balancing lockshields;
- return manifold with shut-off valves for thermo-electric control thanks to the M30 x 1,5 mm standard connection; handwheels included;
- pair of terminal units with drain cocks, manual air vent valves and R74 special control wrench;
- electro-galvanized steel brackets for cabinet or wall-mounting installation.

### Technical data

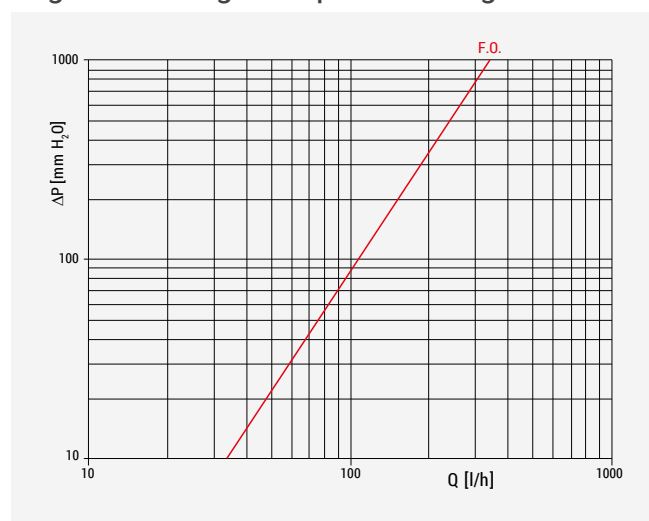
#### Performance

- Temperature range 5÷70 °C
- Max. working pressure: 6 bar (10 bar for system pressure test)
- Air vent valve max. working pressure: 10 bar
- Center distance between manifold outlets: 50 mm

#### Materials

- Supply and return manifolds: AISI 304 stainless steel
- Terminal units and drain cock: brass
- Gaskets: EPDM
- Manifold brackets: galvanized steel
- Handwheels: plastic

### Diagram for setting loss of pressure in single circuits






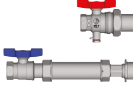



N° of turns of the flow meter's lockshield	F.O.
Kv	1,21

## ➤ Versions and product codes

PRODUCT CODE	CONNECTIONS MANIFOLD x OUTLETS	N° OF OUTLETS	FLUSH-MOUNTING CABINET SERIES R500-2
R553FSX242	1" F x 3/4" E	2	R500Y221 400 x 650÷740 x 85÷130
R553FSX243		3	
R553FSX244		4	
R553FSX245		5	R500Y222 600 x 650÷740 x 85÷130
R553FSX246		6	
R553FSX247		7	
R553FSX248		8	R500Y223 800 x 650÷740 x 85÷130
R553FSX249		9	
R553FSX250		10	
R553FSX251		11	R500Y224 1000 x 650÷740 x 85÷130
R553FSX252		12	

Manifold/cabinet pairs are intended for manifolds with terminal units only, WITHOUT optional kits installed.

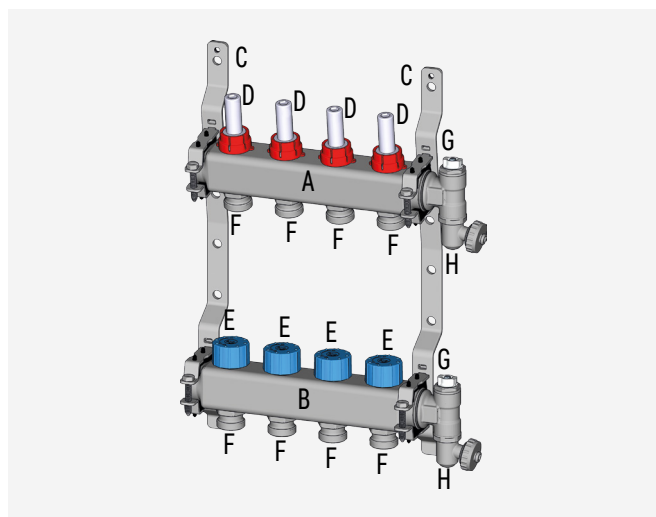
## Optional kits

PRODUCT CODE	CONNECTIONS
 R259SX077	G 1" F x G 1" M
 R259KX006	G 3/4" F x G 1" M
 R259KX007	G 1" F x G 1" M
 R859KX016	G 3/4" F x G 1" M
 R859KX017	G 1" F x G 1" M
 R859KX026	G 3/4" F x G 1" M
 R859KX027	G 1" F x G 1" M

## Optional components

- **R500-2**: electro-galvanized flush-mounting cabinets with adjustable depth and height
- **R453FY002**: adaptor ring nut for installation of R473, R473M thermo-electric actuators on return manifold valves
- **R473, R473M**: thermo-electric actuators normally closed, for installation on return manifold valve (after installing the R473FY002 adaptor ring nut) for automatic opening/closing of single circuits, controlled by room thermostats installed inside the house
- **R179E**: 3/4" E adaptors for plastic or multilayer pipes
- **R178E**: 3/4" E adaptors for copper pipes

## ➤ Components



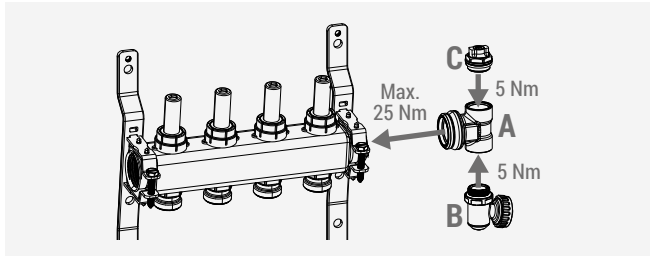
- |   |   |
|---|---|
| A | Supply manifold                             |
| B | Return manifold                             |
| C | Metal bracket                               |
| D | Flow meter working as regulation lockshield |
| E | Shut-off valve with handwheel               |
| F | 3/4" Eurocone threaded fitting              |
| G | Manual air vent valve                       |
| H | Drain cock                                  |

## ► Installation and setting

**▲ WARNING.** Installation must be carried out by qualified operators according to the instructions below.

### Installation of terminal units

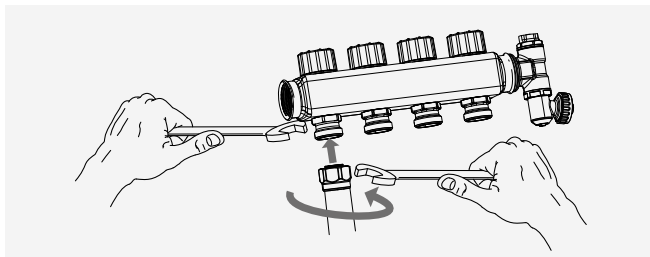
First screw the intermediate fitting **(A)** on the manifold. Then install the drain cock **(B)** on the bottom of the intermediate fitting and the air vent valve **(C)** on top. All components are provided with self-sealing gasket.



### Circuit pipe connection

To connect the circuit water supply pipes, use Eurocone adaptors for copper, plastic or multilayer pipes series R178E or R179E.

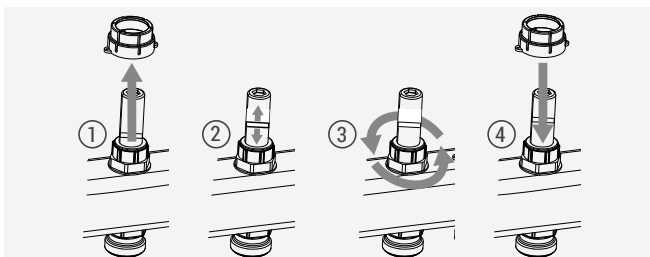
**▲ WARNING.** Use a 26 mm back wrench when screwing/unscrewing the adaptors to the manifold outlets.



### Setting and balancing of hydraulic circuits on supply manifold

The system single circuits must be set using the flow meters as regulation lockshields on the supply manifold. For proper setting, follow the instructions below:

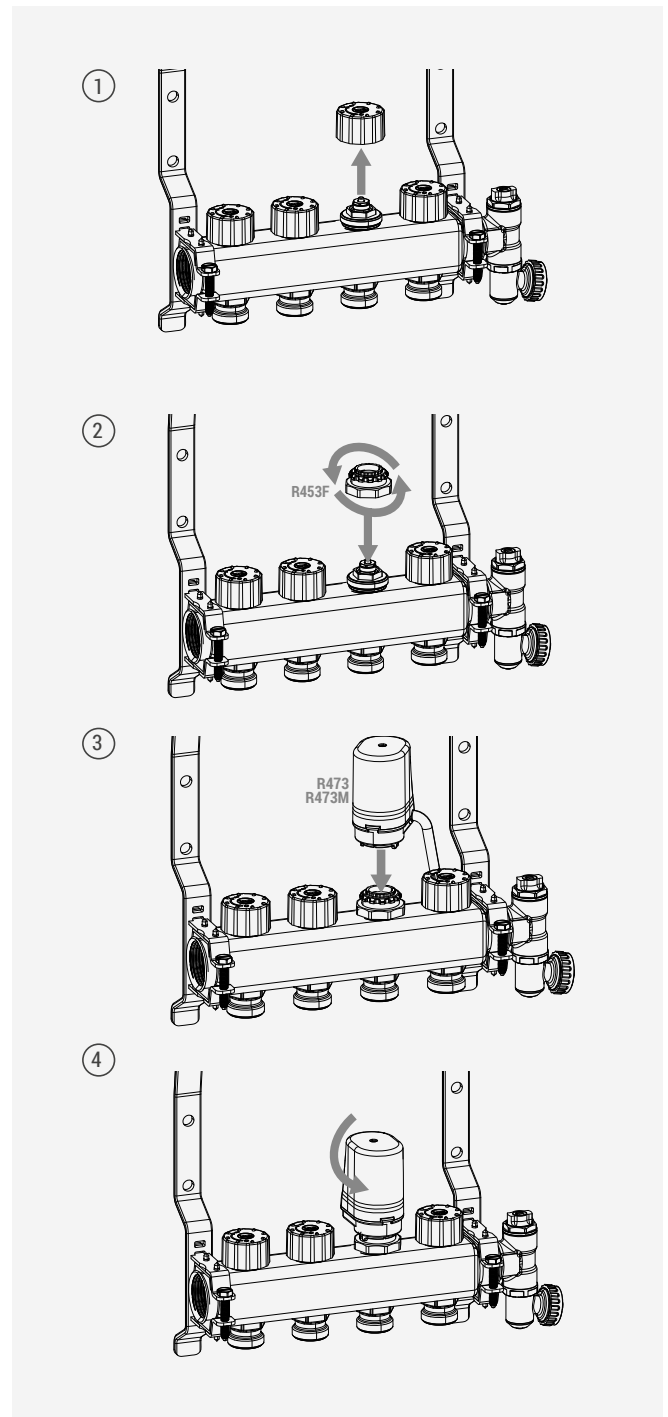
- 1) Remove the red protection cap;
- 2) Place the flow indicator on the desired flow rate value;
- 3) Set the flow rate by turning the special ring nut till the meter inner plate is on the flow rate indicator previously set;
- 4) Replace the red protection cap which also blocks the preset regulation.



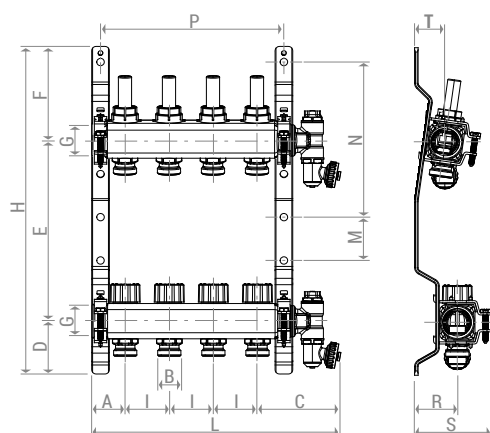
### Shutting off the hydraulic circuits on the return manifold

Turn the provided blue handwheels all the way through to shut off the circuits on the return outlets. As an alternative, thermo-electric actuators can be installed on the M30 x 1,5 mm standard connection.

To install the R473/R473M thermo-electric actuators normally closed, replace the blue handwheels with R453FY002 quick-fit ring nuts. Install the thermo-electric actuator of the ring nut using enough pressure to fit it. Turn the thermo-electric actuator slightly to properly connect it to the ring nut (max. torque 5 Nm).



## ➤ Dimensions



## ➤ Product specifications

### R553FS

Stainless-steel preassembled manifold kit for HVAC systems. 3/4" Eurocone outlet circuit connections for copper, plastic or multilayer pipe adaptors. Center distance between outlets 50 mm. Temperature range 5÷70 °C. Max. working pressure: 6 bar (10 bar for system pressure test). Air vent valve max. working pressure 10 bar. Includes a supply manifold with flow meters (double scale 0÷5 l/min and 0÷1,5 GPM) working as regulation lockshields for single circuits, a return manifold with shut-off valves activated by handwheels, manifold metal brackets and a pair of terminal units including manual air vent valve and drain cock. Replace the handwheel with thermo-electric actuators normally closed for automatic setting of the circuits.

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]	P [mm]	R [mm]	S [mm]	T [mm]
R553FSX242	2									190			110			
R553FSX243	3									240			160			
R553FSX244	4									290			210			
R553FSX245	5									340			260			
R553FSX246	6									390			310			
R553FSX247	7	1" F x 3/4" E	38	102	61	209	109	379	50	440	50	197	360	49	86	35
R553FSX248	8									490			410			
R553FSX249	9									540			460			
R553FSX250	10									590			510			
R553FSX251	11									640			560			
R553FSX252	12									690			610			

**⚠ 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.

**ℹ Additional information.** For more information, go to [giacomini.com](http://giacomini.com) or contact our technical assistance service. This document provides only general indications. Giacomini S.p.A. may change at any time, without notice and for technical or commercial reasons, the items included herewith. The information included in this technical sheet do not exempt the user from strictly complying with the rules and good practice standards in force.

**♻ 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.