

PREASSEMBLED GROUP FOR RADIANT PANEL SYSTEMS WITH FIXED POINT REGULATION - R557F



R557F

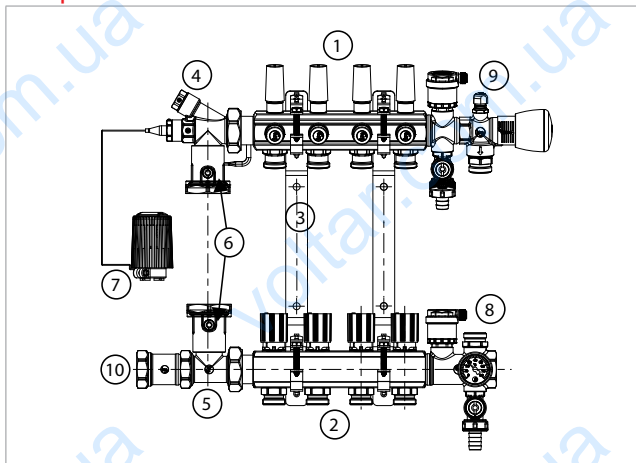
Description

R557F manifold is used in those applications where in the same housing unit, heat sources supplied at high temperature are installed with radiant panel circuits to be supplied with low temperature water. It permits distributing the heating fluid in the circuits of the radiant heating system at a prefixed working temperature, set through R462L thermostatic head, by drawing from a primary circuit at higher temperature, needed for the operation of other users (for example radiators).

Technical data

- Temperature range: 5÷110 °C
- Maximum working pressure: 10 bar
- Supply temperature: 75÷80 °C
- Working temperature of the low temperature use: 40÷45 °C (position 2,5 – 3 of the R462L thermostatic head).
- R462L thermostatic head, temperature-limit with a range 20÷70 °C
- Working ΔT: 6÷7 °C
- Scale of the flow meters: 0,5÷5 l/min
- Centre distance among the outlets: 50 mm

Components



R557F preassembled group for radiant panel systems is made up of:

- 1) R553M flow manifold with frontal balancing lockshield valves equipped with mechanical memory and flow meters, scale 0,5÷5 l/min.
- 2) R553V return manifold with shut-off valves having manual handwheel, prearranged for electrothermic drive.
- 3) R588L metallic adjustable supports.
- 4) R557B flow fitting with housing for probes.
- 5) R557D mixing fitting.
- 6) R252 ball valves for pumps.
- 7) R462L thermostatic head, temperature-limit with 20÷70 °C range.

- 8) R554D intermediate fitting with discharge cock, thermometer, automatic air vent.
- 9) R554A intermediate fitting with discharge cock, automatic air vent, R147N differential valve.
- 10) R557P spacer fitting.

Depending on the exigencies, to complete the group, you can add:

- Angle or straight valve with thermostatic option R401TG/R402TG, iron connection or R411TG/R412TG, copper connection.
- Angle or straight lockshield valve R14TG/R15TG, iron connection or R29TG/R31TG copper connection.
- R593 reductions of appropriate size for the connections of valve and lockshield valve.
- K373 safety thermostat with housing.
- R179 adaptors for the connection of the pipes made of PE-X, PE-RT or Pb, R179AM for multilayer pipes or R178 for copper pipes.
- Electrothermic heads R473, R473M, R478, R478M.
- Circulation pump with 130/180 mm centre distance.
- Metallic containment cabinet R557L.

Thermostatic head positioning

The flow temperature of the panel system is predetermined by positioning R462L thermostatic head according to the correspondences of the below table. To avoid possible tampering of the position, by using the proper metallic bush, it is possible making a locking of the head.

Position	*	1	2	3	4	5	6
T [°C]	20	23	34	45	56	67	70

Circuit balancing

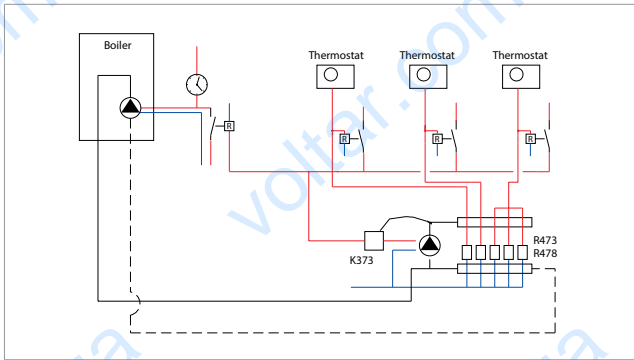
The flow manifold is equipped with micrometric lockshield valves with mechanical memory, for the circuit balancing. By using the appropriate R558N key, at first open completely the bushes with screwdriver cut and afterwards by starting from the completely closed position, open the Allen screw lockshield valves according to a turn number gathered from the calibration diagram. At the end of the balancing, screw again the bushes up to the stop on the respective lockshield valves. This operation will allow closing the circuits in successive times and reopen them without loosing the initial calibration position.

Electrothermic actuator mounting

If the group R557F supplies circuits positioned in the same space, it is convenient making the regulation of the room temperature with a thermostat, that stops directly the pump by interposing a simple timer that limits frequent starting and switching off. If the group is connected to circuits that heat different rooms, you can obtain the greatest comfort and energy saving by installing in each room electronic thermostats connected to the electrothermic actuators of the R473, R473M, R478, R478M series. The actuators can be easily installed on the return manifold, by releasing the provided micrometric handwheels.

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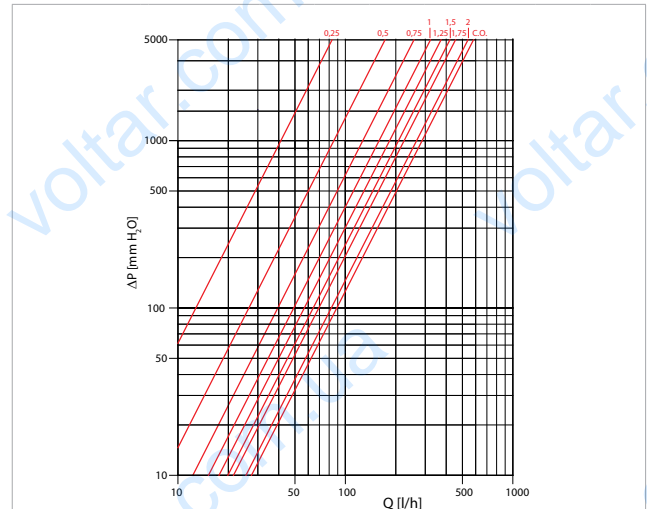
Example of electrical connection



The scheme represents a typical case of mixed system in which high temperature heat sources (for example radiators or towel-dryers) are combined with R557F manifolds for floor heating systems. The electrical system shall be made so as to make the pump of the primary circuit of the boiler running when the manifold pump starts, and possibly the high temperature part works also with R557F manifold switched off.

The scheme shall be revised depending on the assembled actuator and on the system complexity, by adopting the appropriate compatible electrical components.

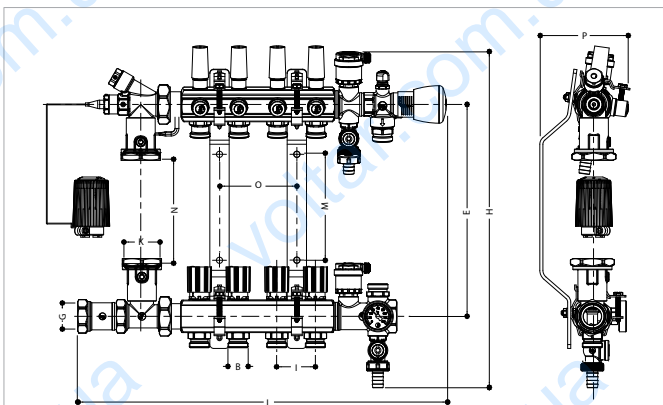
Losses of pressure



Opening turns	0,25	0,5	0,75	1	1,25	1,5	1,75	2	C.O.
Kv	0,12	0,26	0,40	0,49	0,57	0,64	0,71	0,84	0,89

Dimensions

When the R557F group is equipped with circulation pump having 130 mm centre distance, it is inserted into the metal R557I cabinet to be embedded having suitable length. With pumps of 180 mm centre distance (whose use is limited to few particular applications) the height of the group does not allow an easy positioning into the cabinet, therefore this solution is preferable for assembling in technical rooms, or assembling hidden with appropriate cases.



Additional information

For additional information please check the Giacomini website at the following address: www.giacomini.com

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Product code	G	B [mm]	Connection number	I [mm]	K	H [mm]	E [mm]	M [mm]	N [mm]	O [mm]	L [mm]	P [mm]
R557FY002	1"	18	2	50	1 1/2"	433-473	274-314	137	130-180	/	377	117
R557FY003	1"	18	3	50	1 1/2"	433-473	274-314	137	130-180	/	427	117
R557FY004	1"	18	4	50	1 1/2"	433-473	274-314	137	130-180	100	477	117
R557FY005	1"	18	5	50	1 1/2"	433-473	274-314	137	130-180	150	527	117
R557FY006	1"	18	6	50	1 1/2"	433-473	274-314	137	130-180	200	577	117
R557FY007	1"	18	7	50	1 1/2"	433-473	274-314	137	130-180	250	627	117
R557FY008	1"	18	8	50	1 1/2"	433-473	274-314	137	130-180	300	677	117
R557FY009	1"	18	9	50	1 1/2"	433-473	274-314	137	130-180	350	727	117
R557FY010	1"	18	10	50	1 1/2"	433-473	274-314	137	130-180	400	777	117
R557FY011	1"	18	11	50	1 1/2"	433-473	274-314	137	130-180	450	827	117
R557FY012	1"	18	12	50	1 1/2"	433-473	274-314	137	130-180	500	877	117

Product specifications

R557F

Preassembled manifold for floor heating systems, made of brass, with fixed point regulation. Supplied with high temperature water. Mixing obtained through R462L thermostatic head. 50 mm centre distance among the outlets. Temperature range: 5÷110 °C. Maximum working pressure 10 bar. It is composed by: flow manifold with frontal balancing lockshield valves provided with mechanical memory and flow meters scale 0,5÷5 l/min. Return manifold with shut-off valve having manual handwheel, prearranged for electrothermic drive. EPDM sealings. R558L adjustable metallic supports. R557B flow fitting with housing for probes. R557D mixing fitting. R252 ball valves with cap for pumps. Thermostatic head R462L, temperature limit with range 20÷70 °C. R554D intermediate fitting with discharge cock, thermometer, automatic air vent. R554A intermediate fitting with discharge cock, automatic air vent. R147N differential valve. R557P spacer fitting. Available with connection for adaptors R178, R179, R179AM base 18.