0553EN January 2017

PREASSEMBLED GROUP FOR RADIANT SYSTEMS WITH FIXED POINT REGULATION 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).

Versions and product codes

Due doubt es de	Manifold	NIO -ftt-	Wall-mount cabinet *			
Product code	connections x outputs	N° of outputs	Series	Code		
R557FY002	1"x base 18	2		R557Y051		
R557FY003		3		R557Y051		
R557FY004		4		R557Y051		
R557FY005		5	R557I	R557Y051		
R557FY006		6		R557Y051		
R557FY007		7	Thickness	R557Y051		
R557FY008		8	150 mm	R557Y052		
R557FY009		9		R557Y052		
R557FY010		10		R557Y052		
R557FY011		11		R557Y052		
R557FY012		12		R557Y052		

Codici di completamento

- Valve with thermostatic option R401TG, R402TG (iron connection) or R421TG, R422TG (adaptor connection)
- Lockshield valve R14TG, R15TG (iron connection) or R29TG, R31TG (adaptor connection)
- M-F fitting R593D for the connection of valve and lockshield valve
- Circulator (advised centre distance: 130 mm)
- Safety thermostat K373
- Metallic cabinet R557I
- Thermo-electric actuators R473, R473M, R478, R478M

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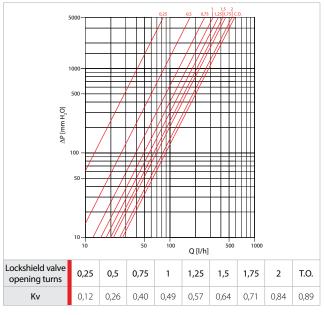
Warning.

When the R557F group is equipped with circulator having 130 mm centre distance, it is inserted into the metal R557l cabinet to be embedded having suitable length. With circulator 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.

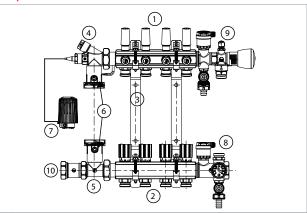
Technical data

- •Temperature range: 5÷110 °C
- Maximum working pressure: 10 bar
- Supply water temperature: 75÷80 $^{\circ}\text{C}$
- Working temperature of the low temperature use: 40÷45 °C (position 2,5 / 3 of the R462L thermostatic head)
- Range of R462L thermostatic head: 20÷70 °C
- Working ∆T: 6÷7 °C
- Scale of the flow meters: 0,5÷5 l/min
- Centre distance among the outlets: 50 mm

Losses of pressure



Components



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	Legend
1	R553M flow manifold with frontal balancing lockshield valves and flow meters, scale 0,5 \div 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 circulator
7	R462L thermostatic head
8	R554D intermediate fitting with drain tap, thermometer, automatic air vent
9	R554A intermediate fitting with drain tap, automatic air vent, differential valve.
10	R557P spacer fitting

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MANIFOLDS AND PREASSEMBLED GROUPS

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R557E





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.

R462L position	*	1	2	3	4	5	6
Temperature [°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.

Thermo-electric actuator installation

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.

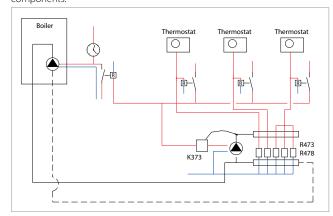
The actuators can be easily installed on the return manifold, by releasing the provided micrometric handwheels.

Example of electrical connection

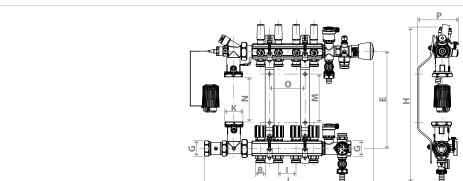
The scheme represents a typical case of mixed system in which high temperature heat sources (for example radiators or towel-dryers) are combined with R557F manifolds for floor heating systems.

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.



Dimensions



Product codes	GxB	N° of outputs	l [mm]	К	H [mm]	E [mm]	M [mm]	N [mm]	O [mm]	L [mm]	P [mm]
R557FY002	1"x base 18	2	50	1 1/2"	433÷473	274÷314	137	130÷180	/	377	117
R557FY003	1"x base 18	3	50	1 1/2"	433÷473	274÷314	137	130÷180	/	427	117
R557FY004	1"x base 18	4	50	1 1/2"	433÷473	274÷314	137	130÷180	100	477	117
R557FY005	1" x base 18	5	50	1 1/2"	433÷473	274÷314	137	130÷180	150	527	117
R557FY006	1"x base 18	6	50	1 1/2"	433÷473	274÷314	137	130÷180	200	577	117
R557FY007	1"x base 18	7	50	1 1/2"	433÷473	274÷314	137	130÷180	250	627	117
R557FY008	1"x base 18	8	50	1 1/2"	433÷473	274÷314	137	130÷180	300	677	117
R557FY009	1"x base 18	9	50	1 1/2"	433÷473	274÷314	137	130÷180	350	727	117
R557FY010	1"x base 18	10	50	1 1/2"	433÷473	274÷314	137	130÷180	400	777	117
R557FY011	1"x base 18	11	50	1 1/2"	433÷473	274÷314	137	130÷180	450	827	117
R557FY012	1"x base 18	12	50	1″1/2	433÷473	274÷314	137	130÷180	500	877	117

Additional information