

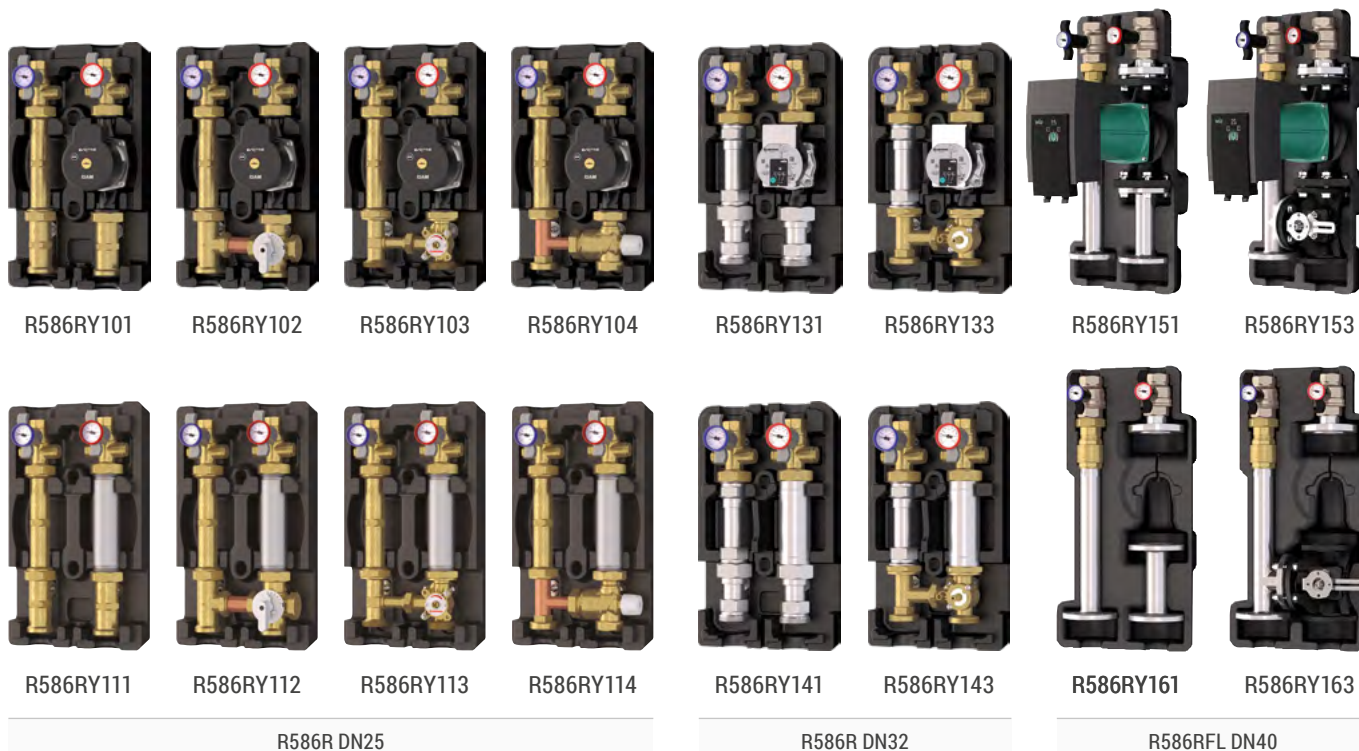
R586R, R586RFL



Energy
Management

Distribution and control units

Datasheet
0861EN 06/2025



R586R, R586RFL distribution units control heating or cooling for one zone of the system. The units are equipped with shut-off ball valves with integrated thermometer, check valve integrated in the return circuit and complete insulation. They are available with a low-energy consumption pump complying with directive ErP 2009/125/CE or with a steel spacer for pump installation. Some versions also feature a mixing valve; the actuator to control the mixing valve (when included) is sold separately. The mixing valve actuators and the supply temperature can be controlled with KLIMABus electronic control products.



VIDEO

Frame the QR code with your smartphone or tablet to view the video tutorial.



Unit with insulation and actuator (optional)

Versions and product codes

Versions with pump included (Molex cable included)

SERIES	PRODUCT CODE	CONNECTIONS			APPLICATION	PUMP	MIXING	
		DN	BOILER ROOM SIDE	SYSTEM SIDE			MIXING VALVE	ACTUATOR (OPTIONAL)
R586R	R586RY101	25	G 1-1/2"M	G 1"F	Heating/Cooling	DAB EVOSTA2 70/180	-	-
	R586RY102				Heating/Cooling	DAB EVOSTA2 70/180	Ball mixing valve Kv 18,9 (R296)	K275Y002/011/013
	R586RY103				Heating/Cooling	DAB EVOSTA2 70/180	Sector mixing valve Kv 10 (R297)	K275Y002/011/013
	R586RY104				Heating only	DAB EVOSTA2 70/180	Thermostatic mixing valve Kv 3,6	-
	R586RY131	32	G 2"M	G 1-1/4"F	Heating/Cooling	Wilo Para 30/7	-	-
	R586RY133				Heating/Cooling	Wilo Para 30/7	Sector mixing valve Kv 18	K275Y002/011/013
R586RFL	R586RY151	40	DN40-PN6 Flange	G 1-1/2"F	Heating/Cooling	Wilo Yonos Maxo 40/12	-	-
	R586RY153				Heating/Cooling	Wilo Yonos Maxo 40/12	Sector mixing valve Kv 41	K274Y103

Versions without pump

	PRODUCT CODE	CONNECTIONS			APPLICATION	PUMP	MIXING	
		DN	BOILER ROOM SIDE	SYSTEM SIDE			MIXING VALVE	ACTUATOR (OPTIONAL)
R586R	R586RY111	25	G 1-1/2"M	G 1"F	Heating/Cooling	Not included	-	-
	R586RY112				Heating/Cooling	Not included	Ball mixing valve Kv 18,9 (R296)	K275Y002/011/013
	R586RY113				Heating/Cooling	Not included	Sector mixing valve Kv 10 (R297)	K275Y002/011/013
	R586RY114				Heating only	Not included	Thermostatic mixing valve Kv 3,6	-
	R586RY141	32	G 2"M	G 1-1/4"F	Heating/Cooling	Not included	-	-
	R586RY143				Heating/Cooling	Not included	Sector mixing valve Kv 18	K275Y002/011/013
R586RFL	R586RY161	40	DN40-PN6 Flange	G 1-1/2"F	Heating/Cooling	Not included	-	-
	R586RY163				Heating/Cooling	Not included	Sector mixing valve Kv 41	K274Y103

Accessories

- **K275Y002:** actuator with integrated constant temperature regulator, for R586R DN25 and DN32 units
- **K275Y011:** 3-point floating actuator controllable with KLIMAbus electronic control, for R586R DN25 and DN32 units
- **K275Y013:** actuator 0÷10 V controllable with KLIMAbus electronic control, for R586R DN25 and DN32 units
- **K274Y103:** actuator 0÷10 V controllable with KLIMAbus electronic control, for R586RFL DN40 units
- **Kits for actuators installations:**

KITS FOR ACTUATORS INSTALLATIONS	MIXING VALVE ACTUATOR	R586R/R586RFL UNIT CODE
P275Y003 (compreso con attuatore)	K275Y002/011/013	R586RY102/112
P275Y004 (compreso con attuatore)	K275Y002/011/013	R586RY103/113
P275Y005 (compreso con gruppo)	K275Y002/011/013	R586RY133/143
P274Y001 (compreso con gruppo)	K274Y103	R586RY153/163

- **R284Y021:** differential by-pass kit, for R586R DN25 and DN32 units
- **R252Y001:** shut-off ball valve G 1" F x nut G 1-1/2" F, for installation upstream the distribution unit
- **R252Y002:** shut-off ball valve G 1-1/4" F x nut G 2" F, for installation upstream the distribution unit
- **KLIMAbus electronic control:** electronic control components (electronic controller, thermostats, etc...)

Compatible pumps with R586R DN25 units

- **P76DAY001:** DAB EVOSTA2 70/180 - 180 mm center distance, G 1-1/2" M connections; 230 V; 50 Hz; 45 W; ErP 2009/125/CE compliant (spare part for units equipped with pump; GE500Y303 Molex cable to be ordered separately)
- **P76WIY019:** Wilo Para 25/8 plus (high flow rate) - 180 mm center distance, G 1-1/2" M connections; 230 V; 50 Hz; 87 W; ErP 2009/125/CE compliant (to be ordered separately for units without pump; GE500Y303 Molex cable to be ordered separately)

Other compatible pumps with R586R DN25 units

- Grundfos Alpha series - 180 mm center distance, G 1-1/2" M connections

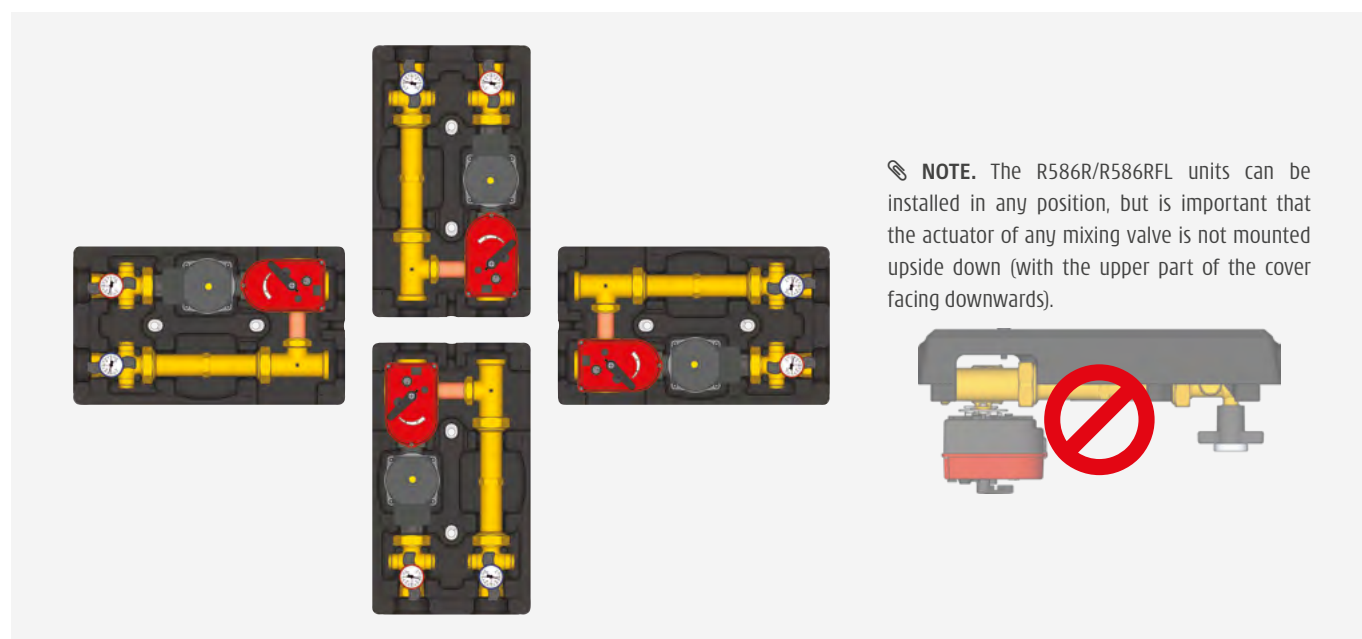
Compatible pumps with R586R DN32 units

- **P76WIY020:** Wilo Para 30/7 - 180 mm center distance, G 2" M connections; 230 V; 50 Hz; 50 W; ErP 2009/125/CE compliant (spare part for units equipped with pump; GE500Y303 Molex cable to be ordered separately)
- **P76WIY021:** Wilo Maxo 30/10 (high flow rate) - 180 mm center distance, G 2" M connections; 230 V; 50 Hz; 190 W; ErP 2009/125/CE compliant (to be ordered separately for units without pump); P556Y041 Molex cable to be ordered separately)

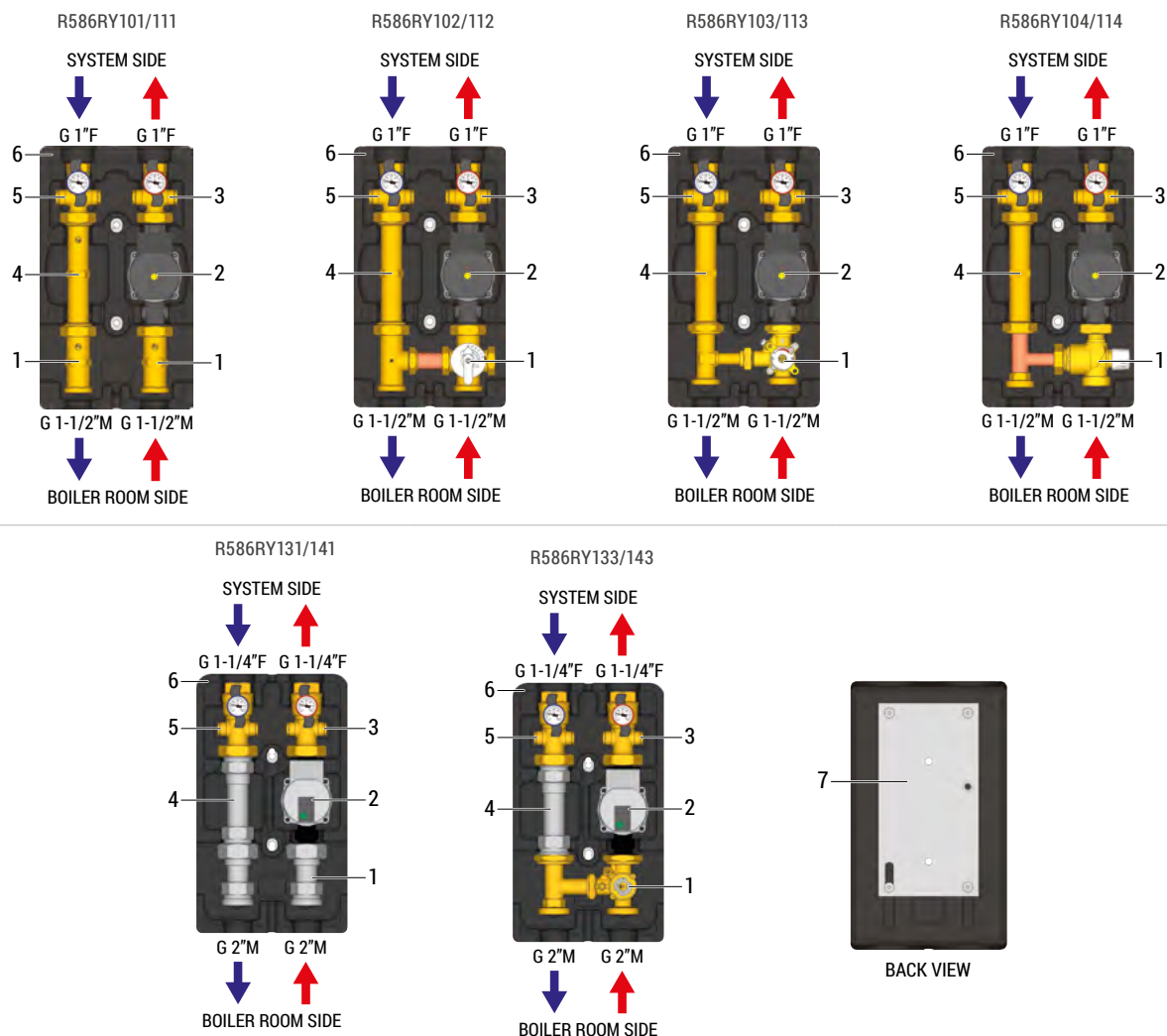
Compatible pumps with R586RFL DN40 units

- **P76WIY022:** Wilo Yonos Maxo 40/12 - 250 mm center distance, DN40-PN6/10 flange connections; 230 V; 50 Hz; 450 W; ErP 2009/125/CE compliant (to be ordered separately for units without pump); provided with terminal block for electrical connections, Molex cable not required)

➔ Installation positions

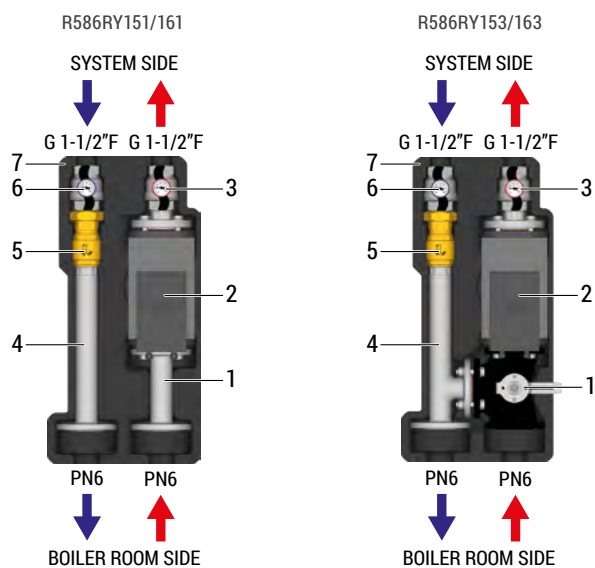


Components R586R units



REF.	R586RY101/111	R586RY102/112	R586RY103/113	R586RY104/114	R586RY131/141	R586RY133/143
1	Brass fitting	Mixing ball valve (R296)	Mixing sector valve (R297)	Mixing thermostatic valve	Galvanized steel spacer	Mixing sector valve
2	Pump or galvanized steel spacer	Pump or galvanized steel spacer	Pump or galvanized steel spacer	Pump or galvanized steel spacer	Pump or galvanized steel spacer	Pump or galvanized steel spacer
3	Supply ball valve, with thermometer and connections for by-pass kit	Supply ball valve, with thermometer and connections for by-pass kit	Supply ball valve, with thermometer and connections for by-pass kit	Supply ball valve, with thermometer and connections for by-pass kit	Supply ball valve, with thermometer and connections for by-pass kit	Supply ball valve, with thermometer and connections for by-pass kit
4	Brass spacer with integrated check valve	Brass spacer with integrated check valve	Brass spacer with integrated check valve	Brass spacer with integrated check valve	Steel spacer with integrated check valve	Steel spacer with integrated check valve
5	Return ball valve, with thermometer and connections for by-pass kit	Return ball valve, with thermometer and connections for by-pass kit	Return ball valve, with thermometer and connections for by-pass kit	Return ball valve, with thermometer and connections for by-pass kit	Return ball valve, with thermometer and connections for by-pass kit	Return ball valve, with thermometer and connections for by-pass kit
6	Insulation shell	Insulation shell	Insulation shell	Insulation shell	Insulation shell	Insulation shell
7	Wall-mount plate	Wall-mount plate	Wall-mount plate	Wall-mount plate	Wall-mount plate	Wall-mount plate

Components R586RFL units



RIF.	R586RY151/161	R586RY153/163
1	Galvanized steel spacer	Mixing sector valve
2	Pump or space for pump installation	Pump or space for pump installation
3	Supply ball valve, with thermometer	Supply ball valve, with thermometer
4	Galvanized steel spacer	Galvanized steel spacer
5	Check valve	Check valve
6	Return ball valve, with thermometer	Return ball valve, with thermometer
7	Insulation shell	Insulation shell

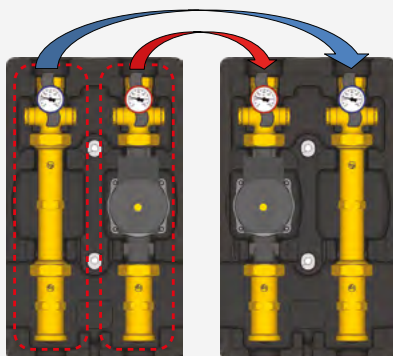
➤ Main features

Supply/return outputs reversibility

All the units include reversible supply and return outputs.

🔗 **NOTE.** R586RFL units are not reversible.

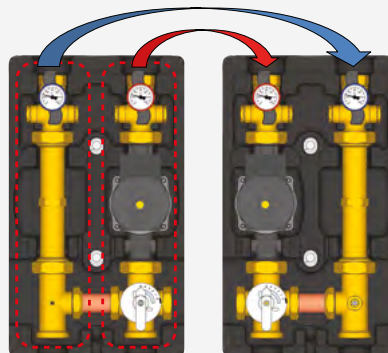
R586RY101/111/131/141



Invert supply and return by fitting the outputs in the insulation slots.

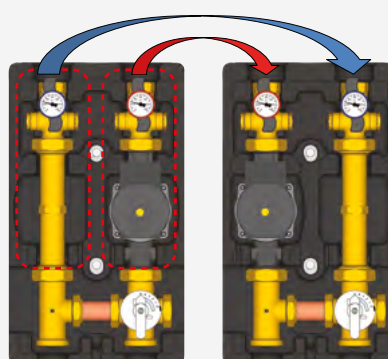
R586RY102/112

Option 1



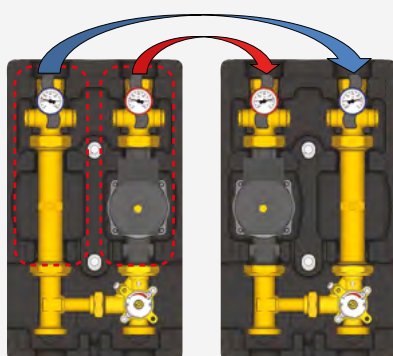
Invert supply and return by fitting the outputs in the insulation slots.
Also invert the cap and the copper fitting of the mixing valve.

Option 2



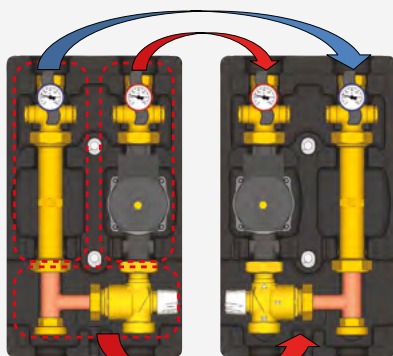
Leave the mixing valve in the default position,
invert supply and return by fitting the outputs in the insulation slots.
In this configuration the mixing valve works by mixing
the water coming from the supply.

R586RY103/113/133/143



Leave the mixing valve in the default position,
invert supply and return by fitting the outputs in the insulation slots.
In this configuration the mixing valve works by mixing
the water coming from the supply.

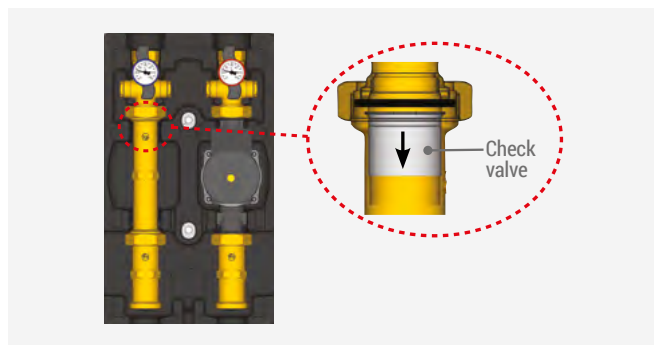
R586RY104/114



180°

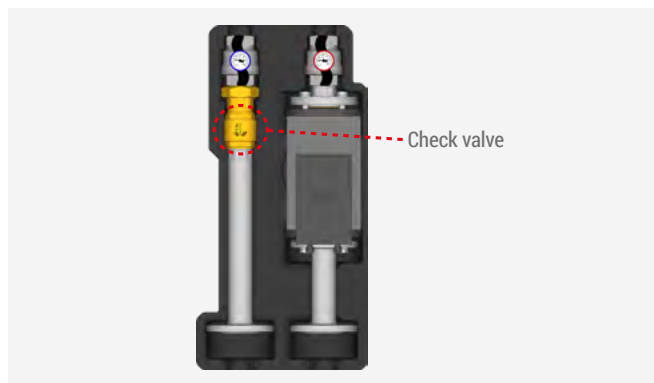
Invert supply and return by fitting the outputs in the insulation slots
and turn the mixing valve upside down.

Check valve integrated on return output



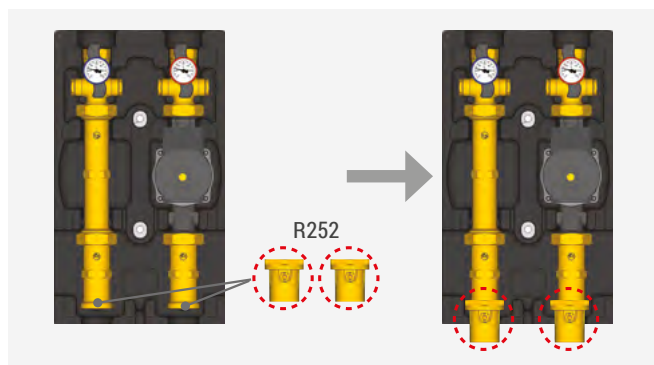
All R586R units include a check valve inside the brass spacer top, on the return output.

The check valve can be disassembled by removing the Seeger ring used to fit it to the spacer.



All R586RFL units include a R60 check valve installed on the return output.

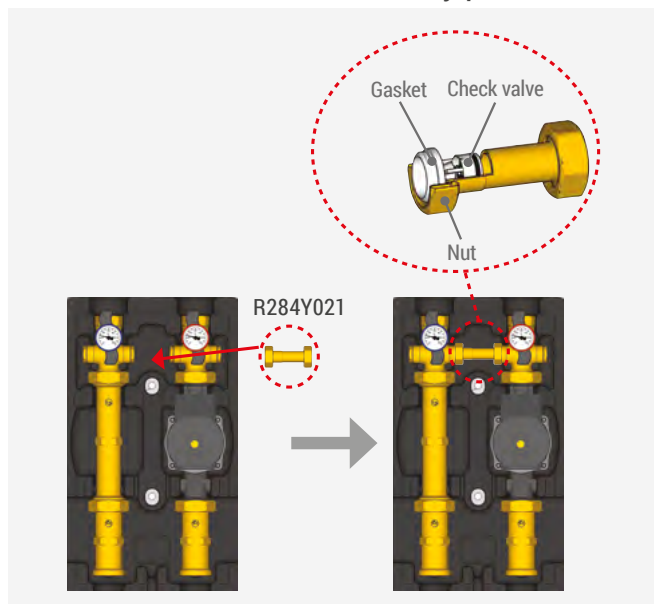
Installation of R252 ball valves, for R586R units



R586R units can be intercepted by installing the R252 ball valves upstream.

The ball valves can be opened and closed using a 5 mm Allen key.

Installation of R284Y021 differential by-pass kit, for R586R units



The differential by-pass kit protects the pump enabling water recirculation inside the R586R unit when the secondary system is off or completely closed.

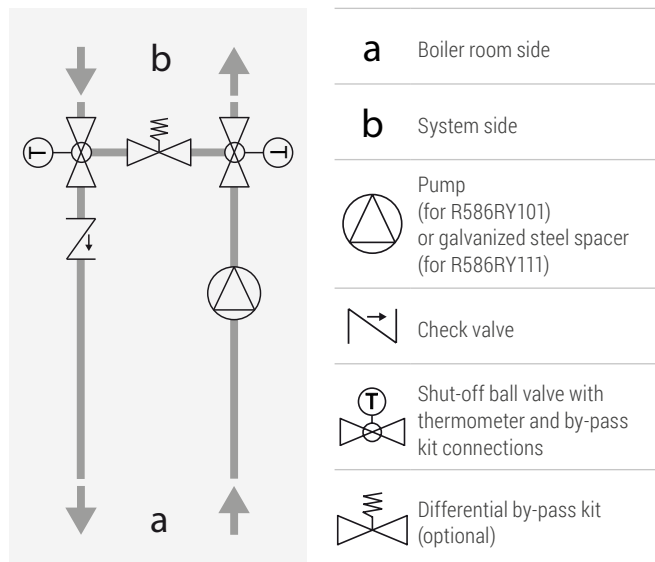
The kit includes a brass spacer with integrated check valve calibrated at a fix value of 5 m.w.c., two nuts to be screwed on the shut-off valves and two PTFE gaskets.



R586RY101 / R586RY111



Operation



R586RY101 and R586RY111 distribution units without mixing valve are used in heating and cooling systems such as relaunching units for direct outputs of high/low temperature combined systems.

The units include shut-off valves with thermometer both on the supply and return circuit and a check valve on the return spacer.

The two supply and return outputs are reversible and a R284Y021 differential by-pass kit can be installed in between (see paragraph "Main characteristics").

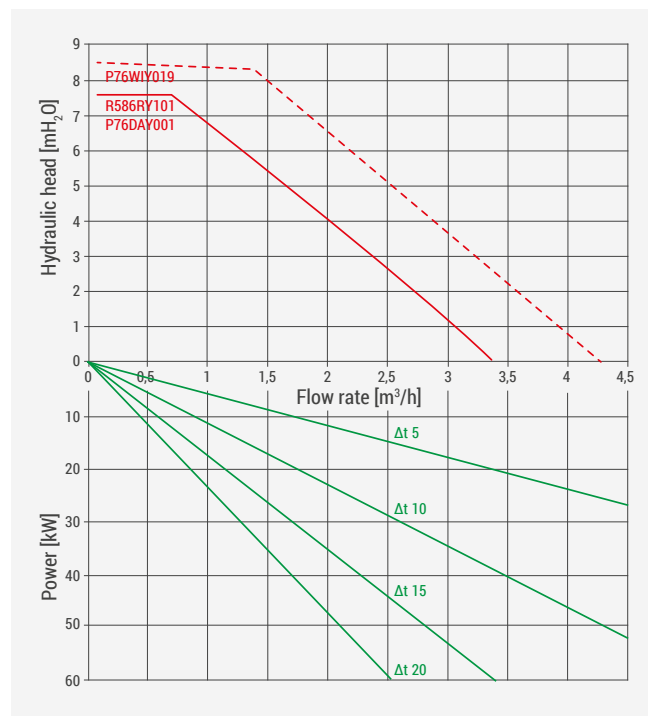
Technical data

- Fluids: water, glycol-based solutions (max. 50 %)
- Temperature range: 5÷100 °C
- Max. working pressure: 10 bar
- Connections: boiler room side: G 1-1/2" M
system side: G 1" F
outputs center distance: 125 mm
- Weight: 5,8 kg (with pump); 4,0 kg (without pump)
- Galvanized steel spacer, 180 mm center distance (for pump-free versions)
- Shut-off ball valves with thermometers (scale 0÷120 °C) and connections for by-pass kit
- Check valve integrated on return output
- Complete insulation shell, rear and front
- Wall-mount plate (screw anchors not included)

Materials

- Shut-off ball valves: CW617N brass body, PTFE sealings, plastic handle
- Spacer with check valve: galvanized steel body, POM check valve
- Insulation: polypropylene foam (EPP)
- Gaskets: EPDM

Flow rate/power/hydraulic head diagram



NOTE. For proper interpretation of the diagram, see example on page 17.

NOTE. Curves obtained with pump set to "constant speed, level III" mode.

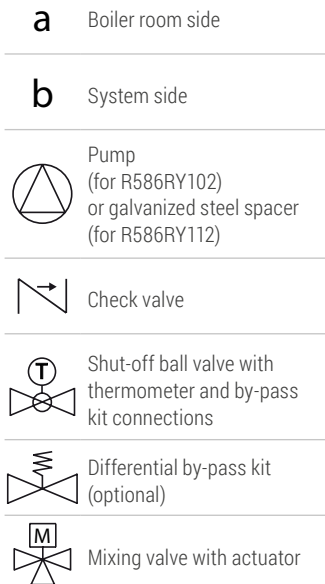
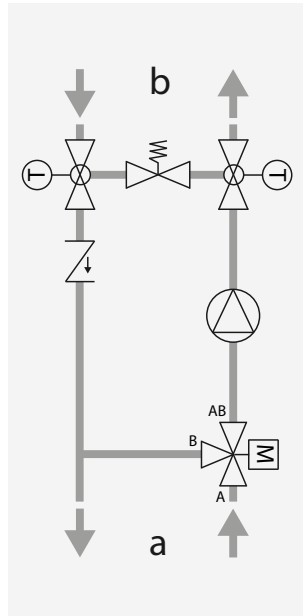
NOTE. Diagram referring to the useful hydraulic head at the unit connections.



R586RY102 / R586RY112



Operation



R586RY102 and R586RY112 distribution units with mixing ball valve (R296) can be used in heating and cooling systems to control the system supply temperature.

Operation is possible only when combined to an actuator and possibly a KLIMAbus electronic control system.

The units include an shut-off valve with thermometer on both supply and return circuits and a check valve on the return spacer.

The two supply and return outputs are reversible and a R284Y021 differential by-pass kit can be installed in between (see paragraph "Main characteristics").

Technical data

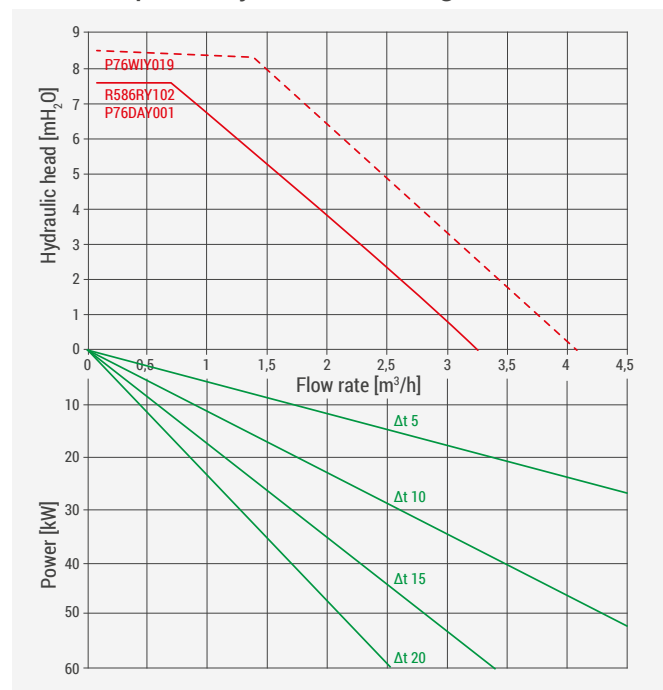
- Fluids: water, glycol-based solutions (max. 50 %)
- Temperature range: 5+100 °C
- Max. working pressure: 10 bar
- Connections: boiler room side: G 1-1/2" M
system side: G 1" F
outputs center distance: 125 mm
- Weight: 6,8 kg (with pump); 5,0 kg (without pump)
- Galvanized steel spacer, 180 mm center distance (for pump-free versions)
- Shut-off ball valves with thermometers (scale 0-120 °C) and connections for by-pass kit
- Check valve integrated on return output
- Complete insulation shell, rear and front
- Wall-mount plate (screw anchors not included)
- Kv R296 mixing valve: 18,9

Manual handle position	0 (B→AB)	1	2	3	4	5 (A→AB)
Kv (AB)	2,0	4,8	7,8	9,8	14,1	18,9

Materials

- Shut-off ball valves: CW617N brass body, PTFE sealings, plastic handle
- Mixing valve: brass body, plastic handle, hard drawn copper pipe connecting supply and return circuits, EPDM gaskets
- Spacer with check valve: galvanized steel body, POM check valve
- Insulation: polypropylene foam (EPP)
- Gaskets: EPDM

Flow rate/power/hydraulic head diagram



NOTE. For proper interpretation of the diagram, see example on page 17.

NOTE. Curves obtained with pump set to "constant speed, level III" mode.

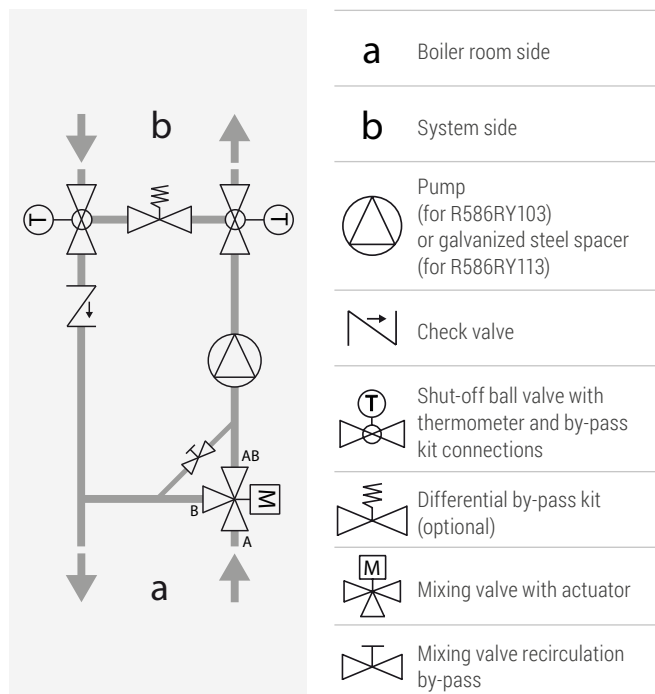
NOTE. Diagram referring to the useful hydraulic head at the unit connections and mixing valve fully open.



R586RY103 / R586RY113



Operation



R586RY103 and R586RY113 distribution units with R297 mixing sector valve can be used in heating and cooling systems to control the system supply temperature.

Operation is possible only when combined to an actuator and possibly a KLIMAbus electronic control system.

The units include an shut-off valve with thermometer on both supply and return circuits and a check valve on the return spacer.

The mixing valve is also equipped with a manually adjustable by-pass to insert the function of fixed recirculation of the system.

The two supply and return outputs are NOT reversible (see "Main Characteristics" paragraph) and a R284Y021 differential by-pass kit can be installed in between (see paragraph "Main characteristics").

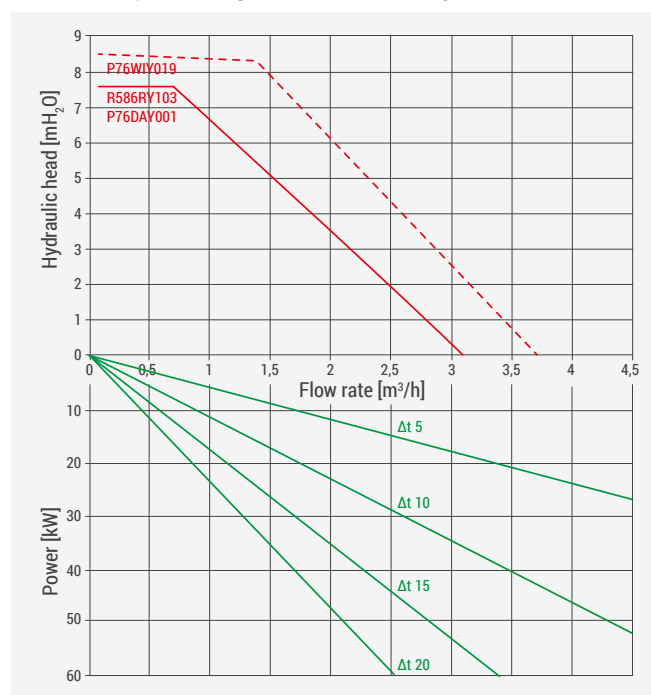
Technical data

- Fluids: water, glycol-based solutions (max. 50 %)
- Temperature range: 5+100 °C
- Max. working pressure: 10 bar
- Connections: boiler room side: G 1-1/2" M
system side: G 1" F
outputs center distance: 125 mm
- Weight: 6,7 kg (with pump); 4,9 kg (without pump)
- Galvanized steel spacer, 180 mm center distance (for pump-free versions)
- Shut-off ball valves with thermometers (scale 0-120 °C) and connections for by-pass kit
- Check valve integrated on return output
- Complete insulation shell, rear and front
- Wall-mount plate (screw anchors not included)
- Kv R297 mixing valve: 10 (see next page)

Materials

- Shut-off ball valves: CW617N brass body, PTFE sealings, plastic handle
- Mixing valve: brass body, brass connecting pipe, gaskets EPDM, FPM and PTFE.
- Spacer with check valve: galvanized steel body, POM check valve
- Insulation: polypropylene foam (EPP)
- Gaskets: EPDM

Flow rate/power/hydraulic head diagram

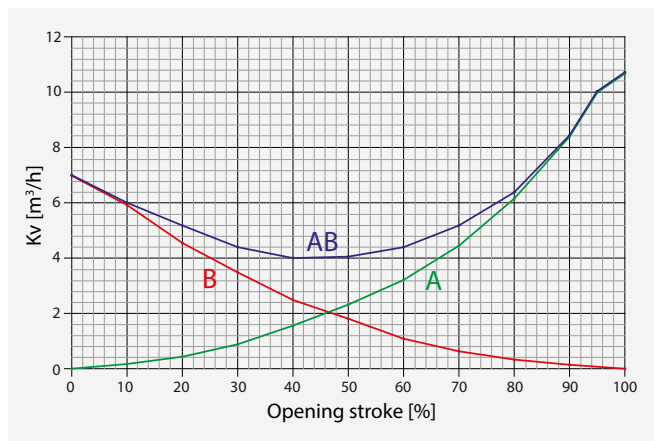


NOTE. For proper interpretation of the diagram, see example on page 17.

NOTE. Curves obtained with pump set to "constant speed, level III" mode.

NOTE. Diagram referring to the useful hydraulic head at the unit connections and mixing valve fully open.

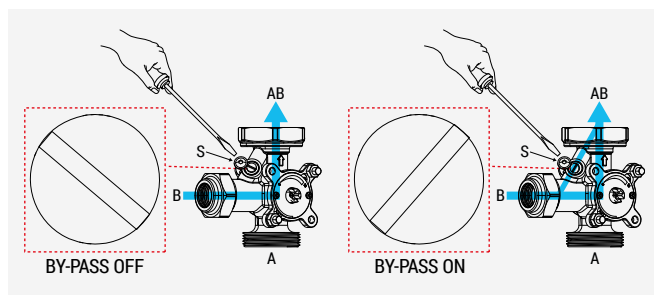
R297 mixing valve Kv



Equal percentage valve: to absolute value variations of the stroke always corresponds the same % variation of the outflow coefficient (example: if the valve opens by 10 %, the Kv will vary by 10 %), notwithstanding the position of the recirculation by-pass.

- Kv: 10

Operation of mixing valve recirculation by-pass



R297 mixing valves include a by-pass which activates a fix recirculation on the mixing valve (B→AB).

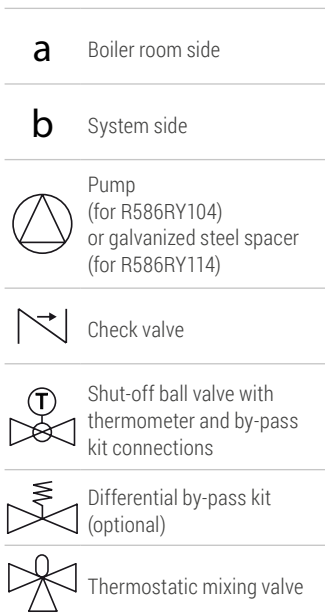
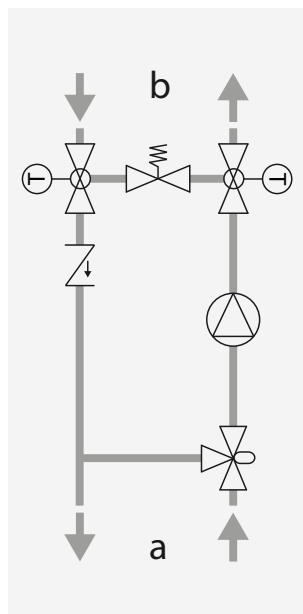
⚠ WARNING. Do not loosen the safety device (S) next to the by-pass adjustment screw. High pressures may violently eject it from its seat.



R586RY104 / R586RY114



Operation



R586RY104 and R586RY114 distribution units with mixing thermostatic valve can be used in heating-only systems to control the system supply temperature and maintain it at the desired constant temperature.

The setting range of the mixing thermostatic valve allows for applications on low-temperature radiant systems and/or fan-coil applications.

The units include shut-off valves with thermometer on both supply and return circuits and a check valve on the return spacer.

The two supply and return outputs are reversible and the R284Y021 differential by-pass kit can be installed in between (see paragraph "Main characteristics").

Technical data

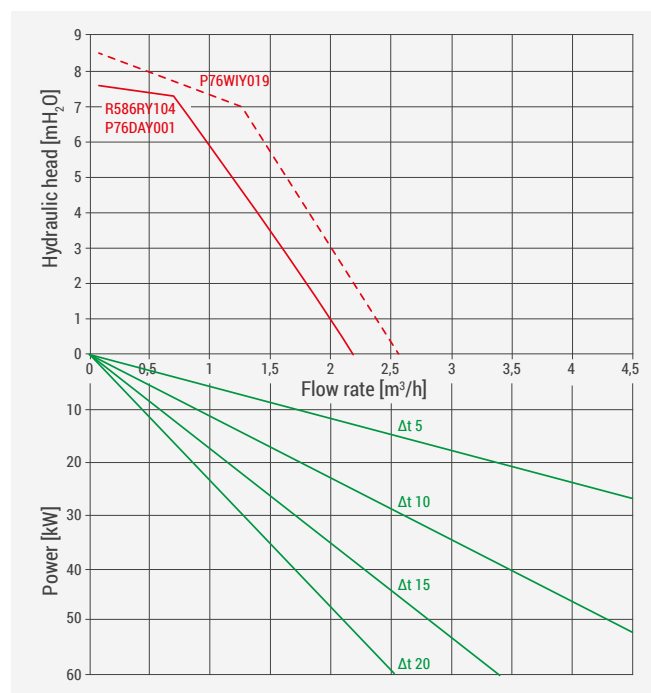
- Fluids: water, glycol-based solutions (max. 50 %)
- Temperature range: 5+95 °C
- Max. working pressure: 5 bar
- Connections: boiler room side: G 1-1/2" M
system side: G 1" F
outputs center distance: 125 mm
- Weight: 7,0 kg (with pump); 5,2 kg (without pump)
- Galvanized steel spacer, 180 mm center distance (for pump-free versions)
- Shut-off ball valves with thermometers (scale 0-120 °C) and connections for by-pass kit
- Check valve integrated on return output
- Complete insulation shell, rear and front
- Wall-mount plate (screw anchors not included)
- Kv thermostatic mixing valve: 3,6
- Thermostatic mixing valve sensitivity: ± 2 °C

Handwheel position	Min.	1	2	3	4	5	Max.
Temperature [°C]	29	30	40	47	54	60	64

Materials

- Shut-off ball valves: CW617N brass body, PTFE sealings, plastic handle
- Mixing valve: brass body, PSU GF20 stopper, Stainless steel spring, EPDM gaskets, wax sensor.
- Spacer with check valve: galvanized steel body, POM check valve
- Insulation: polypropylene foam (EPP)
- Gaskets: EPDM

Flow rate/power/hydraulic head diagram



NOTE. For proper interpretation of the diagram, see example on page 17.

NOTE. Curves obtained with pump set to "constant speed, level III" mode.

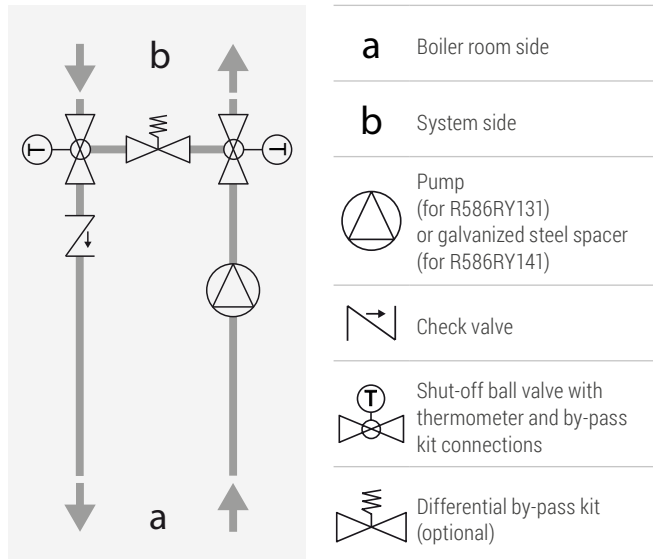
NOTE. Diagram referring to the useful hydraulic head at the unit connections and mixing valve fully open.



R586RY131 / R586RY141



Operation



R586RY131 and R586RY141 distribution units without mixing valve are used in heating and cooling systems such as relaunching units for direct outputs of high/low temperature combined systems.

The units include shut-off valves with thermometer both on the supply and return circuit and a check valve on the return spacer.

The two supply and return outputs are reversible and a R284Y021 differential by-pass kit can be installed in between (see paragraph "Main characteristics").

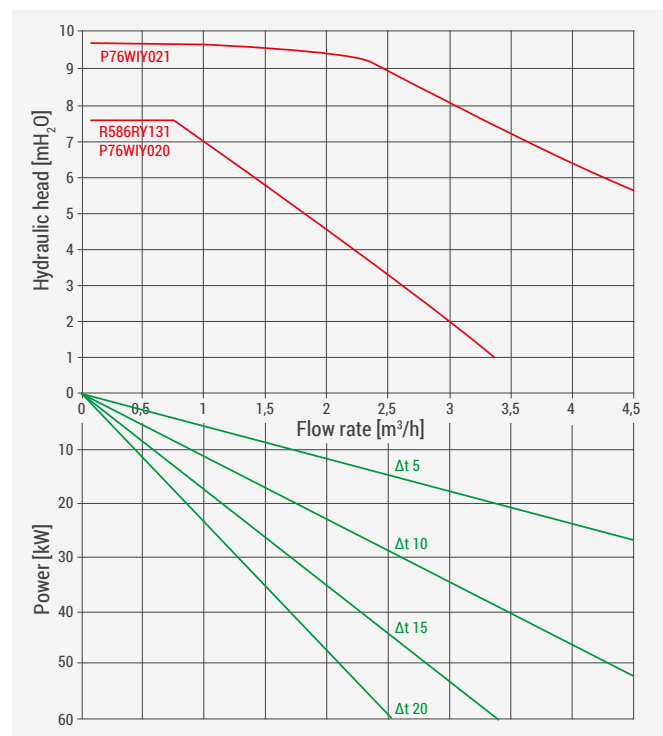
Technical data

- Fluids: water, glycol-based solutions (max. 50 %)
- Temperature range: 5÷100 °C
- Max. working pressure: 10 bar
- Connections: boiler room side: G 2" M
system side: G 1-1/4" F
outputs center distance: 125 mm
- Weight: 7,9 kg (with pump); 6,6 kg (without pump)
- Galvanized steel spacer, 180 mm center distance (for pump-free versions)
- Shut-off ball valves with thermometers (scale 0÷120 °C) and connections for by-pass kit
- Check valve integrated on return output
- Complete insulation shell, rear and front
- Wall-mount plate (screw anchors not included)

Materials

- Shut-off ball valves: CW617N brass body, PTFE sealings, plastic handle
- Spacer with check valve: galvanized steel body, POM check valve
- Insulation: polypropylene foam (EPP)
- Gaskets: EPDM

Flow rate/power/hydraulic head diagram



NOTE. For proper interpretation of the diagram, see example on page 17.

NOTE. Curves obtained with pump set to "constant speed, level III" mode.

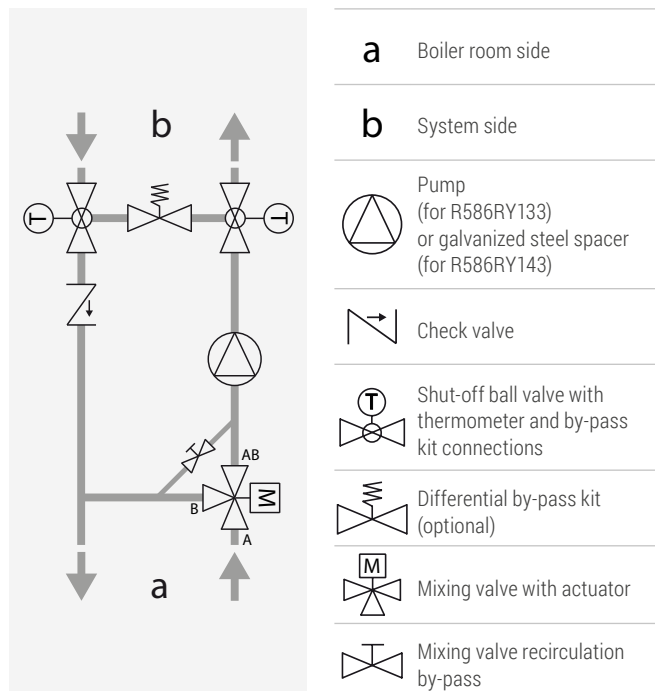
NOTE. Diagram referring to the useful hydraulic head at the unit connections.



R586RY133 / R586RY143



Operation



R586RY133 and R586RY143 distribution units with mixing sector valve can be used in heating and cooling systems to control the system supply temperature.

Operation is possible only when combined to an actuator and possibly a KLIMAbus electronic control system.

The units include an shut-off valve with thermometer on both supply and return circuits and a check valve on the return spacer.

The mixing valve is also equipped with a manually adjustable by-pass to insert the function of fixed recirculation of the system.

The two supply and return outputs are NOT reversible (see "Main Characteristics" paragraph) and a R284Y021 differential by-pass kit can be installed in between (see paragraph "Main characteristics").

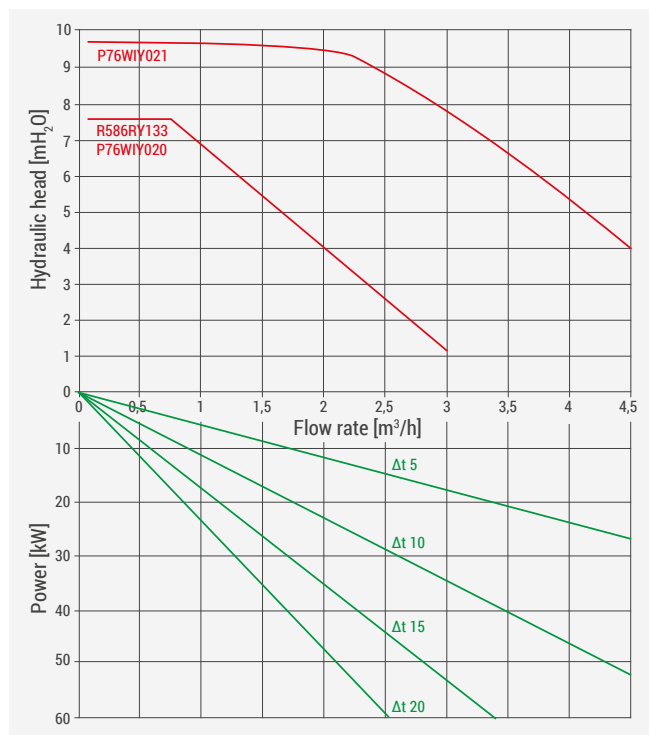
Technical data

- Fluids: water, glycol-based solutions (max. 50 %)
- Temperature range: 5÷100 °C
- Max. working pressure: 10 bar
- Connections: boiler room side: G 2" M
system side: G 1-1/4" F
outputs center distance: 125 mm
- Weight: 8,2 kg (with pump); 6,9 kg (without pump)
- Galvanized steel spacer, 180 mm center distance (for pump-free versions)
- Shut-off ball valves with thermometers (scale 0÷120 °C) and connections for by-pass kit
- Check valve integrated on return output
- Complete insulation shell, rear and front
- Wall-mount plate (screw anchors not included)
- Kv mixing valve: 18 (see next page)

Materials

- Shut-off ball valves: CW617N brass body, PTFE sealings, plastic handle
- Mixing valve: brass body, brass connecting pipe, gaskets EPDM, FPM and PTFE.
- Spacer with check valve: galvanized steel body, POM check valve
- Insulation: polypropylene foam (EPP)
- Gaskets: EPDM

Flow rate/power/hydraulic head diagram

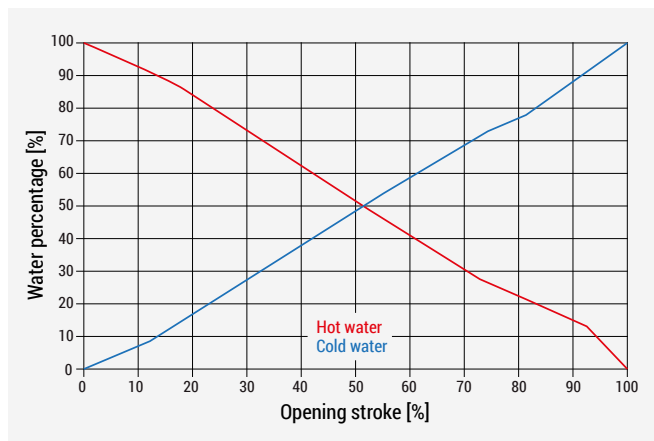


NOTE. For proper interpretation of the diagram, see example on page 17.

NOTE. Curves obtained with pump set to "constant speed, level III" mode.

NOTE. Diagram referring to the useful hydraulic head at the unit connections and mixing valve fully open.

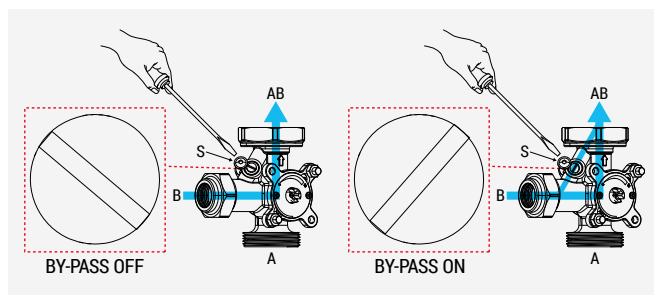
Sector mixing valve



Valve with linear proportional characteristic: hot and cold water mix in an almost linear manner.

• Kv: 18

Operation of mixing valve recirculation by-pass



Sector mixing valve include a by-pass which activates a fix recirculation on the mixing valve (B→AB).

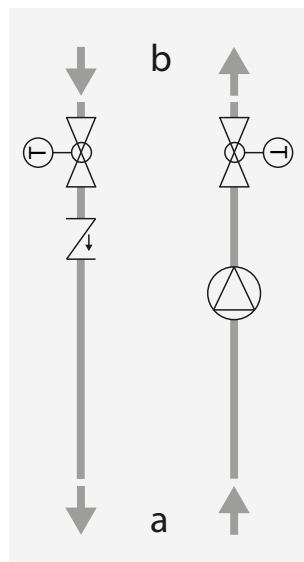
⚠ WARNING. Do not loosen the safety device (S) next to the by-pass adjustment screw. High pressures may violently eject it from its seat.



R586RY151 / R586RY161



Operation



- a** Boiler room side
- b** System side
- Pump
(for R586RY151)
or galvanized steel spacer
(for R586RY161)
- Check valve
- Shut-off ball valve with
thermometer and by-pass
kit connections

R586RY151 and R586RY161 distribution units without mixing valve are used in heating and cooling systems such as relaunching units for direct outputs of high/low temperature combined systems.

The units include shut-off valves with thermometer both on the supply and return circuit and a check valve on the return spacer.

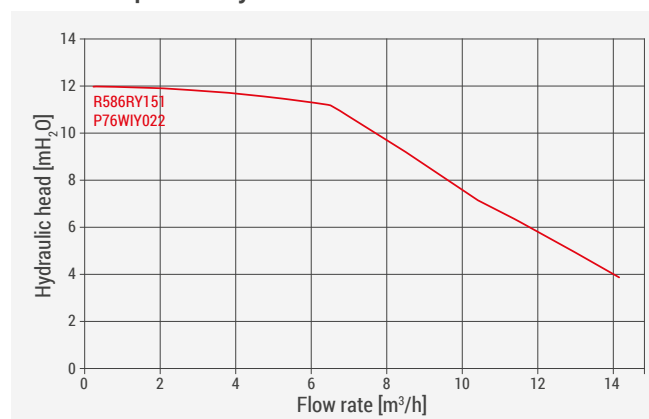
Technical data

- Fluids: water, glycol-based solutions (max. 50 %)
- Temperature range: 5+100 °C
- Max. working pressure: 6 bar
- Connections: boiler room side: DN40-PN6 flange
system side: G 1-1/2" F
outputs center distance: 160 mm
- Weight: 25,2 kg (with pump); 12,3 kg (without pump)
- Galvanized steel spacer, 250 mm center distance (for pump-free versions)
- Shut-off ball valves with thermometers (scale 0-120 °C) and connections for by-pass kit
- R60 check valve integrated on return output
- Complete insulation shell, rear and front

Materials

- Shut-off ball valves: CW617N brass body, PTFE sealings, plastic handle
- Check valve: brass body and disc.
- Insulation: closed-cell PE-X foam
- Gaskets: EPDM

Flow rate/power/hydraulic head data



Q [m³/h]		P [kW]			
1	6	12	17	23	29
2	12	23	35	47	58
3	17	35	52	70	87
4	23	47	70	93	116
5	29	58	87	116	145
6	35	70	105	140	174
7	41	81	122	163	204
8	47	93	140	186	233
9	52	105	157	209	262
10	58	116	174	233	291
11	64	128	192	256	320
12	70	140	209	279	349
13	76	151	227	302	378
14	81	163	244	326	407
5		10	15	20	25
ΔT [°C]					

NOTE. Data obtained with pump set to maximum speed.

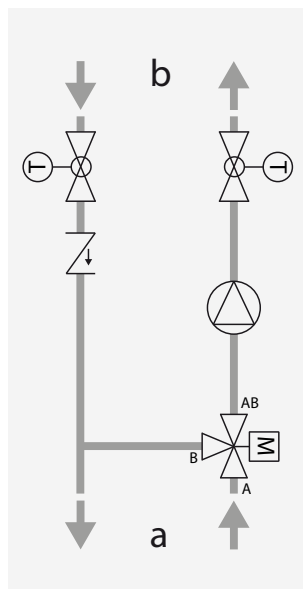
NOTE. Data referring to the useful hydraulic head at the unit connections.



R586RY153 / R586RY163



Operation



a Boiler room side

b System side

 Pump
(for R586RY153)
or galvanized steel spacer
(for R586RY163)

 Check valve

 Shut-off ball valve with
thermometer and by-pass
kit connections

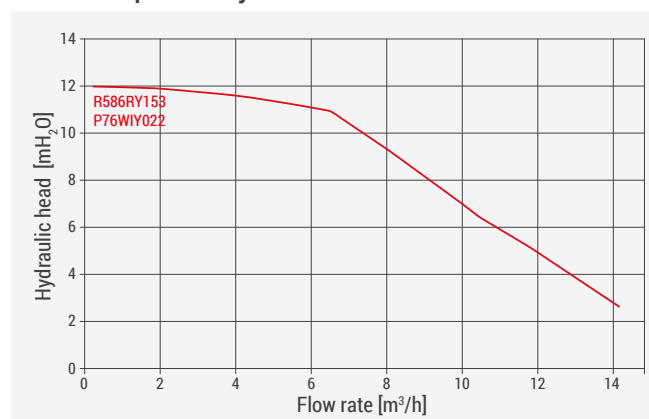
 Mixing valve with actuator

R586RY153 and R586RY163 distribution units with mixing ball valve can be used in heating and cooling systems to control the system supply temperature.

Operation is possible only when combined to an actuator and possibly a KLIMAbus electronic control system.

The units include an shut-off valve with thermometer on both supply and return circuits and a check valve on the return spacer.

Flow rate/power/hydraulic head data



Technical data

- Fluids: water, glycol-based solutions (max. 50 %)
- Temperature range: 5+100 °C
- Max. working pressure: 6 bar
- Connections: boiler room side: UNI EN 1092-1 DN40-PN6 flange
system side: G 1-1/2" F
outputs center distance: 160 mm
- Weight: 29,9 kg (with pump); 16,9 kg (without pump)
- Galvanized steel spacer, 250 mm center distance (for pump-free versions)
- Shut-off ball valves with thermometers (scale 0-120 °C) and connections for by-pass kit
- R60 check valve integrated on return output
- Complete insulation shell, rear and front
- Kv mixing valve: 41 (see next page)

Materials

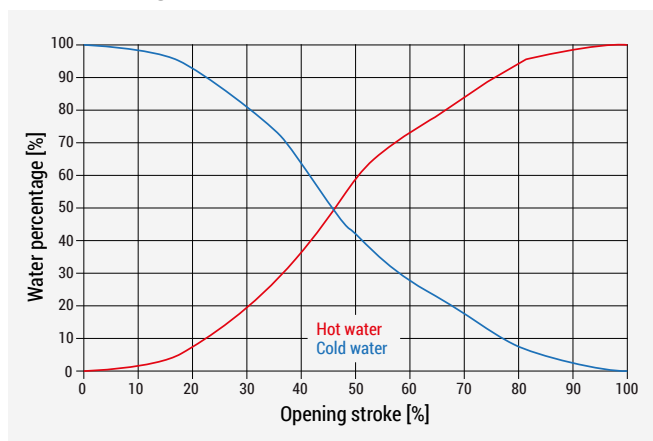
- Shut-off ball valves: CW617N brass body, PTFE sealings, plastic handle
- Mixing valve: brass body, brass connecting pipe, gaskets EPDM, FPM and PTFE.
- Check valve: brass body and disc.
- Insulation: closed-cell PE-X foam
- Gaskets: EPDM

Q [m³/h]		P [kW]			
1	6	12	17	23	29
2	12	23	35	47	58
3	17	35	52	70	87
4	23	47	70	93	116
5	29	58	87	116	145
6	35	70	105	140	174
7	41	81	122	163	204
8	47	93	140	186	233
9	52	105	157	209	262
10	58	116	174	233	291
11	64	128	192	256	320
12	70	140	209	279	349
13	76	151	227	302	378
14	81	163	244	326	407
5		10	15	20	25
ΔT [°C]					

NOTE. Data obtained with pump set to maximum speed.

NOTE. Data referring to the useful hydraulic head at the unit connections.

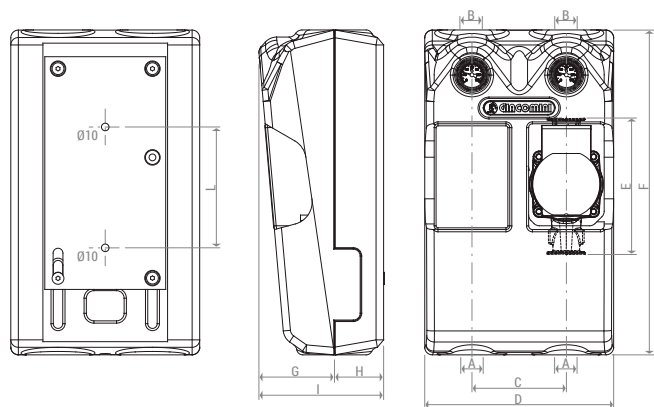
Sector mixing valve



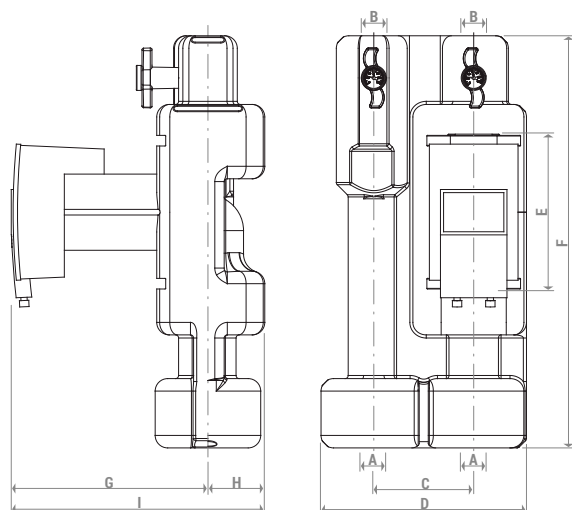
Valve with linear proportional characteristic: hot and cold water mix in an almost linear manner.

- Kv: 41

R586R



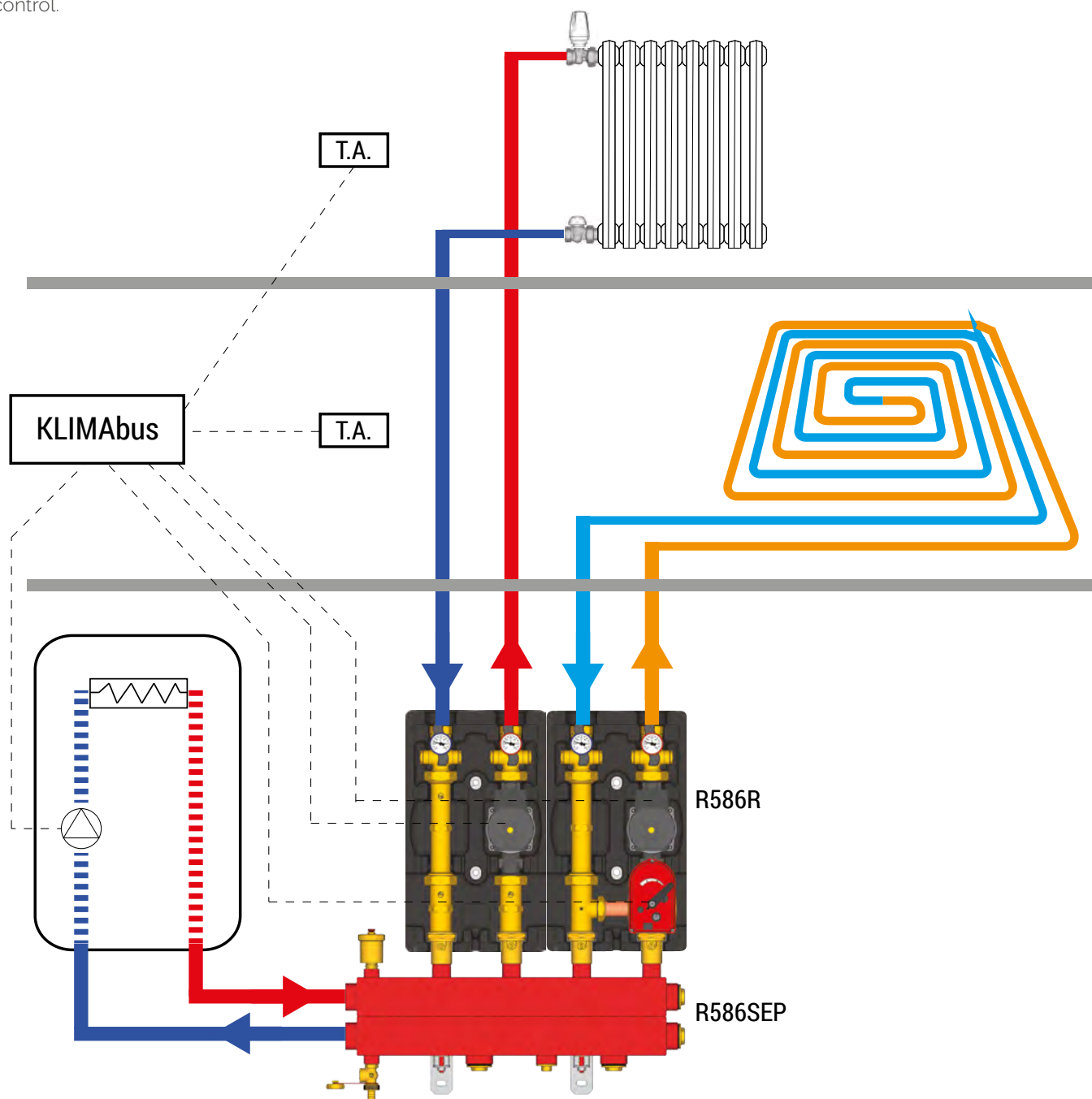
R586RFL



SERIES	PRODUCT CODE	A x B	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	I [mm]	L [mm]
R586R	R586RY101									
	R586RY102									
	R586RY103									
	R586RY104	G 1-1/2"M	125	250	180	430	100	65	165	160
	R586RY111	x G 1"F								
	R586RY112									
	R586RY113									
	R586RY114									
	R586RY131									
	R586RY133	G 2"M	125	280	180	475	103	65	168	160
	R586RY141	x G 1-1/4"F								
	R586RY143									
R586RFL	R586RY151						315		406	
	R586RY153	DN40-PN6 Flange	160	330	250	660		91		N/A
	R586RY161	x G 1-1/2"F								
	R586RY163						115		206	

➤ Example of application diagram

Application diagram for heating-only system with R586SEP complete of R586RY101 for high-temperature radiator zone + R586RY102/103 for low-temperature radiant system zone and mixing valve actuator controlled by KLIMAbus electronic control.



► Interpretation of flow rate/power/hydraulic head diagram

With the system Power and Δt project data known, trace a horizontal line starting from the Power axis up to intersecting the required Δt (A).

From the obtained intersection point, trace a vertical line up to intercepting the operational curve of the R586R/R586RFL unit (B), this will show the operational flow rate and hydraulic head available downstream the R586R/R586RFL unit (B, C).

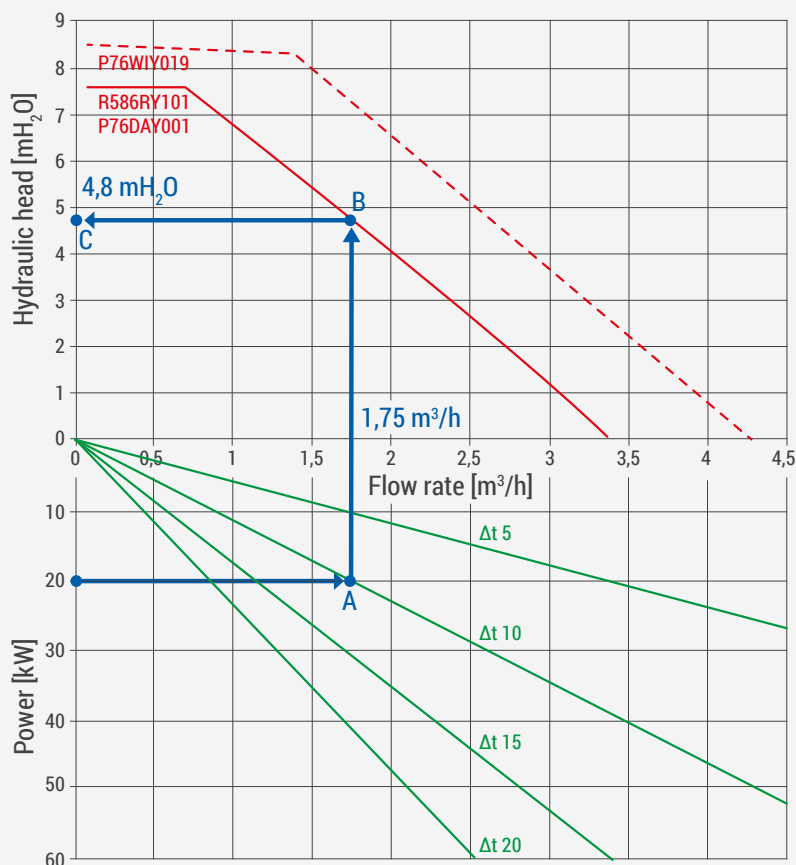
Example:

Power = 20 kW

$\Delta t = 10^\circ\text{C}$

The indications given above will result in a flow rate equal to 1,75 m³/h with a useful hydraulic head at the pump of 4,8 m.w.c.

NOTE. Curves obtained with pump set to "constant speed, level III" mode.



Power	Power required by the heating/cooling system zone downstream of the R586R/R586RFL distribution unit
Δt	Temperature difference between supply and return of the heating/cooling system zone downstream of the R586R/R586RFL distribution unit (Δt depends on the type of system)
Flow rate	Operational flow rate downstream of the R586R/R586RFL distribution unit
Hydraulic head	Hydraulic head available downstream of the R586R/R586RFL distribution unit
R586R/R586RFL unit curve	Operational curve of the R586R/R586RFL distribution unit (DAB EVOSTA2 70/180 pump + all various components)

Standards reference

- PED 2014/68/EU, par. 4.3
- LVD 2014/35/EU
- EMC 2014/30/EU
- ErP 2009/125/EU
- RoHS 2011/65/EU
- Compliance with CE and UKCA: only for versions with pump



Product specifications

R586RY101

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1"F; boiler room side G 1-1/2"M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with low-energy consumption pump complying with directive ErP 2009/125/CE (center distance 180 mm) and shut-off ball valve with integrated thermometer (0÷120 °C scale); brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Weight 5,8 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit. Compliance with CE and UKCA.

R586RY111

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1"F; boiler room side G 1-1/2"M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with spacer to install pump (center distance 180 mm) and shut-off ball valve with integrated thermometer (0÷120 °C scale); brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. max. working pressure 10 bar. Weight 4,0 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit.

R586RY102

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1"F; boiler room side G 1-1/2"M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with low-energy consumption pump complying with directive ErP 2009/125/CE (center distance 180 mm, connections G 1-1/2"M), shut-off ball valve with integrated thermometer (0÷120 °C scale) and motorizable mixing ball valve; brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Weight 6,8 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit. Optional installation of the mixing valve actuator controllable by KLIMAbus electronic control items. Compliance with CE and UKCA.

R586RY112

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1"F; boiler room side G 1-1/2"M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with spacer to install pump (center distance 180 mm, connections G 1-1/2"M), shut-off ball valve with integrated thermometer (0÷120 °C scale) and motorizable mixing ball valve; brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Weight 5,0 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit. Optional installation of the mixing valve actuator controllable by KLIMAbus electronic control items.

R586RY103

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1"F; boiler room side G 1-1/2"M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with low-energy consumption pump complying with directive ErP 2009/125/CE (center distance 180 mm), shut-off ball valve with integrated thermometer (0÷120 °C scale) and motorizable sector mixing valve equipped with optional fix by-pass; brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Weight 6,7 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit. Optional installation of mixing valve actuator controllable by KLIMAbus electronic control items. Compliance with CE and UKCA.

R586RY113

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1"F; boiler room side G 1-1/2"M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with spacer to install pump (center distance 180 mm, connections G 1-1/2"M), shut-off ball valve with integrated thermometer (0÷120 °C scale) and motorizable sector mixing valve equipped with optional fix by-pass; brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Weight 4,9 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit. Optional installation of mixing valve actuator controllable by KLIMAbus electronic control items.

R586RY104

Distribution unit to control heating of one system zone. Connections: system side G 1" F; boiler room side G 1-1/2" M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with low-energy consumption pump complying with directive ErP 2009/125/CE (center distance 180 mm), shut-off ball valve with integrated thermometer (0÷120 °C scale) and thermostatic mixing valve; brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷95 °C. Max. working pressure 5 bar. Weight 7,0 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit. Compliance with CE and UKCA.

R586RY114

Distribution unit to control heating of one system zone. Connections: system side G 1" F; boiler room side G 1-1/2" M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with spacer for to install pump (center distance 180 mm, connections G 1-1/2" M), shut-off ball valve with integrated thermometer (0÷120 °C scale) and thermostatic mixing valve; brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷95 °C. Max. working pressure 5 bar. Weight 5,2 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit.

R586RY131

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1-1/4" F; boiler room side G 2" M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with low-energy consumption pump complying with directive ErP 2009/125/CE (center distance 180 mm) and shut-off ball valve with integrated thermometer (0÷120 °C scale); brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Weight 7,9 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit. Compliance with CE and UKCA.

R586RY141

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1-1/4" F; boiler room side G 2" M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with spacer to install pump (center distance 180 mm) and shut-off ball valve with integrated thermometer (0÷120 °C scale); brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Weight 6,6 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit.

R586RY133

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1-1/4" F; boiler room side G 2" M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with low-energy consumption pump complying with directive ErP 2009/125/CE (center distance 180 mm), shut-off ball valve with integrated thermometer (0÷120 °C scale) and motorizable sector mixing valve equipped with optional fix by-pass; brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Weight 8,2 kg. Optional installation of differential by-pass kit between the two supply and return outputs. Optional installation of shut-off ball valve upstream of distribution unit. Optional installation of mixing valve actuator controllable by KLIMAbus electronic control items. Compliance with CE and UKCA.

R586RY143

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1-1/4" F; boiler room side G 2" M; supply and return outputs center distance 125 mm. Includes: brass supply output equipped with spacer to install pump (center distance 180 mm, connections G 1-1/2" M), shut-off ball valve with integrated thermometer (0÷120 °C scale) and motorizable sector mixing valve equipped with optional fix by-pass; brass return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and POM check valve. Reversible supply and return outputs. EPP rigid insulation (density 35 kg/m³). Wall-mount plate (screw anchors not included). EPDM gaskets. Temperature range 5÷100 °C. Max. working pressure 10 bar. Optional installation of differential by-pass kit between the two supply and return outputs. Weight 6,9 kg. Optional installation of shut-off ball valve upstream of distribution unit. Optional installation of mixing valve actuator controllable by KLIMAbus electronic control items.

R586RY151

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1-1/2" F; boiler room side UNI EN 1092-1 DN40-PN6 flange; supply and return outputs center distance 160 mm. Includes: supply output equipped with low-energy consumption pump complying with directive ErP 2009/125/CE (center distance 250 mm) and shut-off ball valve with integrated thermometer (0÷120 °C scale); return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and check valve with brass disc. Insulation with closed-cell PE-X foam. EPDM Gasket. Temperature range 5÷100 °C. Max working pressure 6 bar. Weight 25,2 kg. Compliance CE e UKCA.

R586RY161

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1-1/2" F; boiler room side UNI EN 1092-1 DN40-PN6 flange; supply and return outputs center distance 160 mm. Includes: supply output with space to install a pump (center distance 250 mm, PN6/10 flange connections) and shut-off ball valve with integrated thermometer (0÷120 °C scale); return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and check valve with brass disc. Insulation with closed-cell PE-X foam. EPDM Gasket. Temperature range 5÷100 °C. Max working pressure 6 bar. Weight 12,3 kg.

R586RY153

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1-1/2"F; boiler room side UNI EN 1092-1 DN40-PN6 flange; supply and return outputs center distance 160 mm. Includes: supply output equipped with low-energy consumption pump complying with directive ErP 2009/125/CE (center distance 250 mm), shut-off ball valve with integrated thermometer (0÷120 °C scale) and sector mixing valve; return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and check valve with brass disc. Insulation with closed-cell PE-X foam . EPDM Gasket. Temperature range 5÷100 °C. Max working pressure 6 bar. Weight 29,9 kg. Optional installation of mixing valve actuator controllable by KLIMAbus electronic control items. Compliance with CE and UKCA.

R586RY163

Distribution unit to control heating and cooling of one system zone. Connections: system side G 1-1/2"F; boiler room side UNI EN 1092-1 DN40-PN6 flange; supply and return outputs center distance 160 mm. Includes: supply output with space to install a pump (center distance 250 mm, PN6/10 flange connections), shut-off ball valve with integrated thermometer (0÷120 °C scale) and sector mixing valve; return output equipped with shut-off ball valve with integrated thermometer (0÷120 °C scale) and check valve with brass disc. Insulation with closed-cell PE-X foam . EPDM Gasket. Temperature range 5÷100 °C. Max working pressure 6 bar. Weight 16,9 kg. Optional installation of mixing valve actuator controllable by KLIMAbus electronic control items. Compliance with CE and UKCA.

⚠ 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.