DISTRIBUTION AND ANTI-CONDENSATION RECIRCULATION GROUP DN 25 AND DN 32

Description


15G.DN25


20G.DN25


19G.DN32

Preassembled pump group for the circulation and temperature control of the water returning to solid fuel heat generators (logs, pellet, woodchips). The group is used when the generator is not equipped with a built-in pump: the group pump performs the function of system circulator and, together with the valve, anti-condensation recirculation. The group connects the solid fuel generator to the manifold or the inertial storage or directly the system. By means of the thermostatic sensor or the built-in fixed-point actuator, it keeps the water temperature, returning to the boiler, above a set value. This function allows to reduce the condensation of the combustion flue gases which causes the following problems: encrustations and deposits on the thermal exchange surfaces between the gases and the system water, corrosion and fire risk, efficiency and life reduction of the generator. The group is composed of a pump, flow/return shut-off valves, anti-condensation thermostatic mixing valve with fixed setting (15G.DN25) or mixing valve with fixed-point actuator (20G.DN25, 19G.DN32), flow/return temperature gauges, anti-thermosiphon check valve, thermal insulation. In these groups the differential by-pass valve can be installed only externally. All the groups are reversible (the flow line can be exchanged with the return line).

BAFA LIST

Range of products

Distribution and anti-condensation recirculation group	*XXX*	*XXX*	*XX*	*X*		*X*
				DN 25	*DN 32*	
Group DN 25, G 1 F connections, anti-condensation thermostatic valve with Kv 9	15G	025	06			
Group DN 25, G 1 F connections, mixing valve with Kv 10 and fixed-point actuator	20G	025	07			
Group DN 32, G 2 M-G 1 1/4 F connections, mixing valve with Kv 18 and fixed-point actuator	19G	032	07			
Without pump				X	X	
Pump Grundfos UPM3 AUTO 25-70 180 (DN 25)/Pump Grundfos UPM3 AUTO 32-70 180 (DN 32)				U	Y	
Pump Wilo Para 25-180/7-50/SC-12 (DN 25)				H	-	
Pump Grundfos UPSO 25-65 180 (Extra EU, DN 25)/Pump Grundfos UPSO 32-65 180 (Extra EU, DN 32)				C	T	
Anti-condensation valve setting (only groups 15G.DN25) 45 °C						A
Anti-condensation valve setting (only groups 15G.DN25) 55 °C						B
Anti-condensation valve setting (only groups 15G.DN25) 60 °C						C
Anti-condensation valve setting (only groups 15G.DN25) 70 °C						D

Features

Working temperature range: **5–90 °C**
Max working pressure: **10 bar**
Female connections: **EN 10226-1**
Male connections: **ISO 228-1**
Connection centre distance: **125 mm**
Pump: **Grundfos UPM3 AUTO 25-70 180 (DN 25)**
Wilo Para 25-180/7-50/SC-12 (DN 25)
Grundfos UPSO 25-65 180 (Extra EU, DN 25)
Grundfos UPM3 AUTO 32-70 180 (DN 32)
Grundfos UPSO 32-65 180 (Extra EU, DN 32)
Suitable fluids: **water, glycol solutions (max 30%)**
Temperature adjustment range of the actuator (20G.DN25, 19G.DN32): **5–95 °C**
Anti-condensation setting (15G.DN25): **45-55-60-70 °C**
Temperature of by-pass hot port fully closing (15G.DN25): **Tmix=Tset+10 °C=TR**
Accuracy (15G.DN25): **±2 °C**
Temperature gauge scale: **0–120 °C**

Materials

Ball valves
- Body: **brass EN 12165 CW617N**
- Gaskets: **PTFE, EPDM, Viton**

Thermostatic anti-condensation valve (15G.DN25)
- Body: **brass EN 1982 CB753S**
- Obturator: **brass EN 12164 CW614N**
- Gaskets: **EPDM**
- Spring: **stainless steel AISI 302**

Motorizable mixing valve (20G.DN25, 19G.DN32)
- Body: **brass EN 12165 CW617N**
- Obturator: **brass EN 12164 CW614N**
- Gaskets: **EPDM**

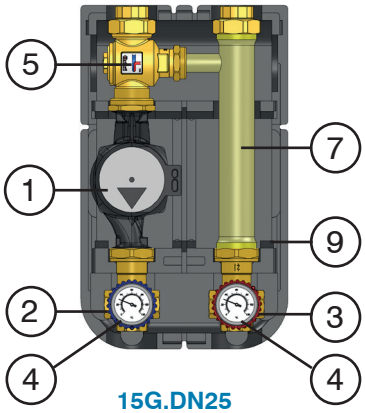
Extension: **galvanized steel**
T-joint (20G.DN25, 19G.DN32): **brass EN12165 CW617N**
Check valve insert
- Body and obturator: **POM**
- Gasket: **NBR**

Pump
- Body: **cast iron**
- Electric supply: **230 V-50/60 Hz**
- Protection class:
  Grundfos UPM3: **IP 44**
  Wilo Para: **IPx4D**
  Grundfos UPSO (Extra EU): **IP 44**
- Centre distance: **180 mm**
- Connections: **G 1 1/2 M (ISO 228-1) (DN 25)**
  G 2 M (ISO 228-1) (DN 32)

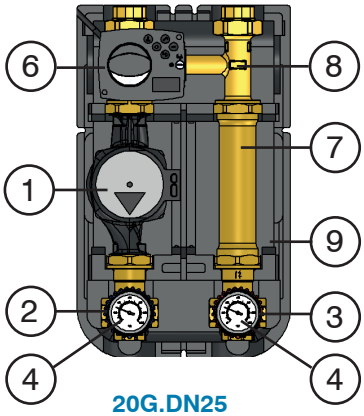
Insulation shell
- Body: **EPP**
- Density: **60 kg/m³**
- Working temperature range: **-5–120 °C**
- Thermal conductivity: **0,04 W/(m·K)**

Fixed-point actuator P27230010T2 (20G.DN25, 19G.DN32)
- Torque: **6 N·m**
- Protection class: **IP 42**
- Electric supply: **230 Vac-50/60 Hz**
- Power consumption: **1,5 VA**
- Running time: **120 s (90°)**
- Supply cable lenght: **1,9 m**
- Probe type: **Pt 1000**
- Cable lenght of the probe: **1 m**

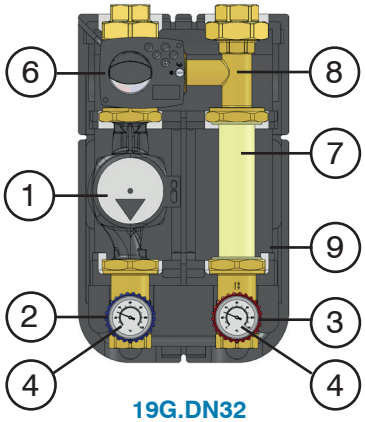
Components



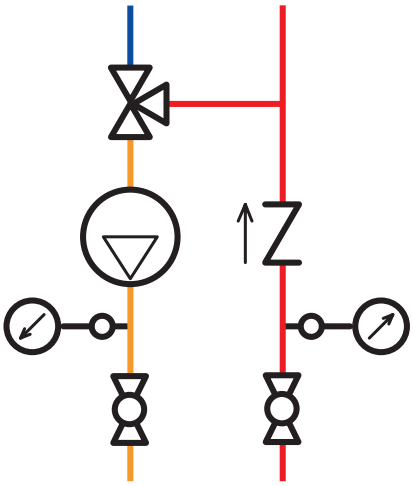
15G.DN25



20G.DN25



19G.DN32



15G.DN25-20G.DN25-19G.DN32		
1	Pump	Grundfos UPM3 AUTO, Wilo Para, Grundfos UPSO (Extra EU)
2	Ball shut-off valve	
3	Ball shut-off valve with built-in check valve	
4	Temperature gauge	
5	Anti-condensation thermostatic mixing valve (15G.DN25)	
6	Mixing valve and fixed-point actuator (20G.DN25, 19G.DN32)	
7	Extension	
8	T-joint (20G.DN25, 19G.DN32)	
9	Insulation	

Anti-condensation thermostatic mixing valve/motorized valve with actuator

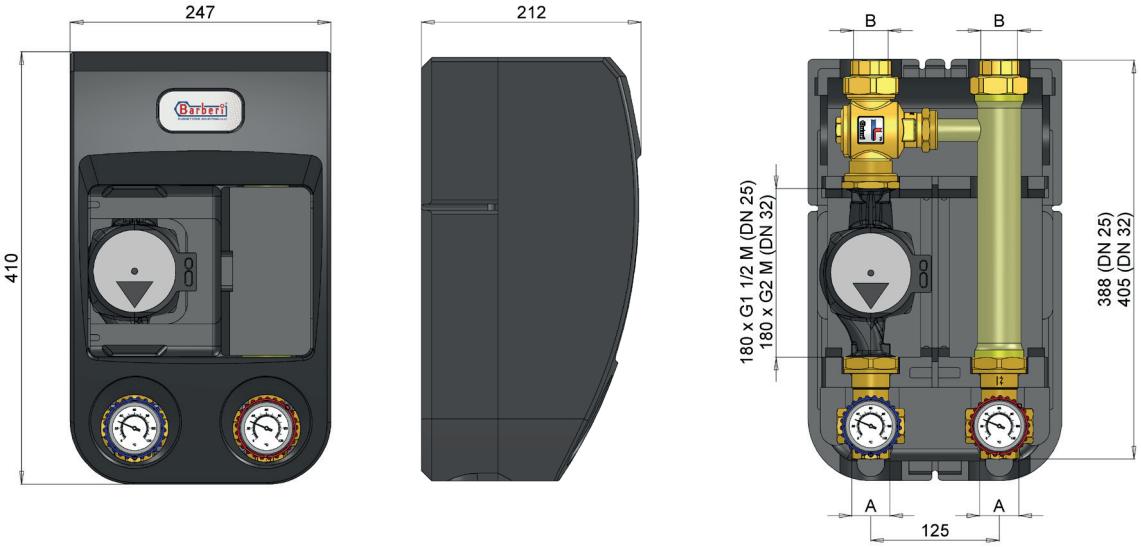
Pump

Temperature gauge

Ball shut-off valve

Check valve

Dimensions



Code	DN	Kv of anti-condensation/mixing valve	Setting °C	Actuator adjustment °C	Reversible	P [bar]	A	B	Pump	Weight [kg]	N. P/B	N. P/C
15G 025 01X A	25	9	45	-	yes	10	G 1 F	G 1 F	Without pump	4,5	-	1
15G 025 01U A	25	9	45	-	yes	10	G 1 F	G 1 F	Grundfos UPM3 AUTO 25-70 180	6,2	-	1
15G 025 01H A	25	9	45	-	yes	10	G 1 F	G 1 F	Wilo Para 25-180/7-50/SC-12	6,0	-	1
15G 025 01C A	25	9	45	-	yes	10	G 1 F	G 1 F	Grundfos UPSO 25-65 180 (Extra EU)	7,0	-	1
15G 025 01X B	25	9	55	-	yes	10	G 1 F	G 1 F	Without pump	4,5	-	1
15G 025 01U B	25	9	55	-	yes	10	G 1 F	G 1 F	Grundfos UPM3 AUTO 25-70 180	6,2	-	1
15G 025 01H B	25	9	55	-	yes	10	G 1 F	G 1 F	Wilo Para 25-180/7-50/SC-12	6,0	-	1
15G 025 01C B	25	9	55	-	yes	10	G 1 F	G 1 F	Grundfos UPSO 25-65 180 (Extra EU)	7,0	-	1
15G 025 01X C	25	9	60	-	yes	10	G 1 F	G 1 F	Without pump	4,5	-	1
15G 025 01U C	25	9	60	-	yes	10	G 1 F	G 1 F	Grundfos UPM3 AUTO 25-70 180	6,2	-	1
15G 025 01H C	25	9	60	-	yes	10	G 1 F	G 1 F	Wilo Para 25-180/7-50/SC-12	6,0	-	1
15G 025 01C C	25	9	60	-	yes	10	G 1 F	G 1 F	Grundfos UPSO 25-65 180 (Extra EU)	7,0	-	1
15G 025 01X D	25	9	70	-	yes	10	G 1 F	G 1 F	Without pump	4,5	-	1
15G 025 01U D	25	9	70	-	yes	10	G 1 F	G 1 F	Grundfos UPM3 AUTO 25-70 180	6,2	-	1
15G 025 01H D	25	9	70	-	yes	10	G 1 F	G 1 F	Wilo Para 25-180/7-50/SC-12	6,0	-	1
15G 025 01C D	25	9	70	-	yes	10	G 1 F	G 1 F	Grundfos UPSO 25-65 180 (Extra EU)	7,0	-	1
20G 025 07X	25	10	-	5–95	yes	10	G 1 F	G 1 F	Without pump	4,83	-	1
20G 025 07U	25	10	-	5–95	yes	10	G 1 F	G 1 F	Grundfos UPM3 AUTO 25-70 180	6,53	-	1
20G 025 07H	25	10	-	5–95	yes	10	G 1 F	G 1 F	Wilo Para 25-180/7-50/SC-12	6,33	-	1
20G 025 07C	25	10	-	5–95	yes	10	G 1 F	G 1 F	Grundfos UPSO 25-65 180 (Extra EU)	7,33	-	1
19G 032 07X	32	18	-	5–95	yes	10	G 2 M	G 1 1/4 F	Without pump	4,83	-	1
19G 032 07Y	32	18	-	5–95	yes	10	G 2 M	G 1 1/4 F	Grundfos UPM3 AUTO 32-70 180	6,53	-	1
19G 032 07T	32	18	-	5–95	yes	10	G 2 M	G 1 1/4 F	Grundfos UPSO 32-65 180 (Extra EU)	7,33	-	1

N. P/B: number of pieces in box - N. P/C: number of pieces in carton
Other pump types should be evaluated

Anti-condensation temperature setting
For a correct choice of the anti-condensation valve setting (15G.DN25) or the temperature of the water returning to the generator (to be set on the actuator display) (20G.DN25-19G.DN32), it is necessary to:
- read the instructions of the solid fuel heat generator to verify any request or indication by the manufacturer which could be compulsory otherwise the warranty on the generator could expire;
- in case of no indications, try to contact the heat generator manufacturer and ask for suggestions;
- evaluate together with a specialized/authorized system designer the optimal temperature for the water returning to the generator according to the fuel type (pellet, logs, woodchips).

Diagrams

Group sizing (operation for specialized/authorized technical personnel).

Step 1: design flow rate. Given the generator power output and the working temperature differential on the generator (delta t, usually suggested by the generator manufacturer), we calculate the design flow rate that must be supplied by the group pump. The following formula or diagram can be used:

$G = P/(1{,}163 \cdot \Delta t)$

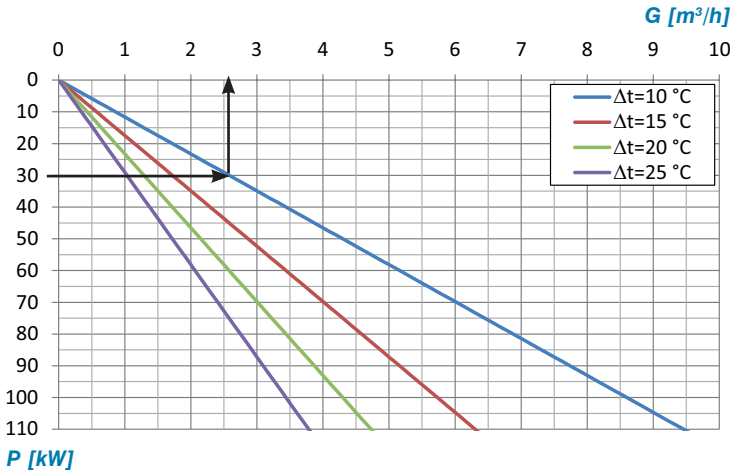
G=design flow rate [m³/h]
P=generator power output [kW] (technical data)
1,163=conversion factor
Δt= working temperature differential [K]
(suggested by the generator manufacturer).

Step 2: head losses of the group without pump. Enter on the x-axis of the second diagram with the design flow rate value. Cross the curve of the group and read the corresponding head losses of the group (without pump) on the y-axis.

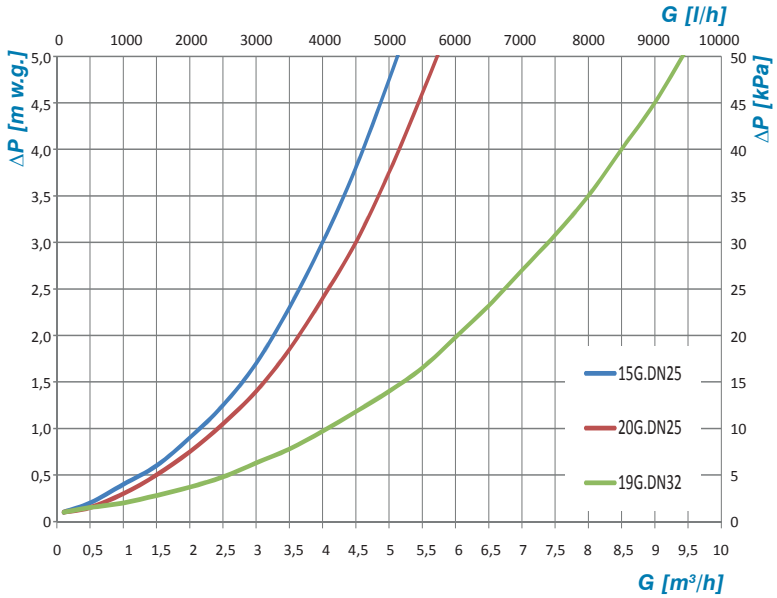
Step 3: available head of the pump. With the same design flow rate value, enter on the x-axis of the selected pump diagram ("Head of pump"). Cross the curve of the selected working mode (Constant speed, Proportional pressure, Constant pressure) and read the corresponding available head of the pump on the y-axis.

Step 4: pump validation. Calculate the difference between the available head of the pump and the head losses of the group without pump. The remaining pump head should be higher than the head losses of the rest of the system: if so, the selected pump is suitable to supply water to the rest of the system, otherwise a different pump working mode or pump size or different group size or a system resizing could be necessary.

Design flow rate

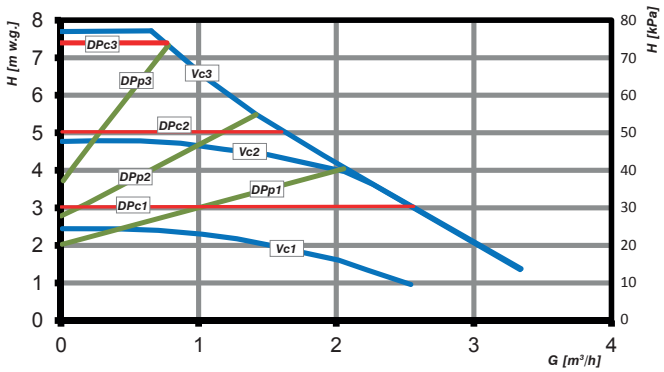


Hydraulic characteristics: head losses of the anti-condensation group without pump

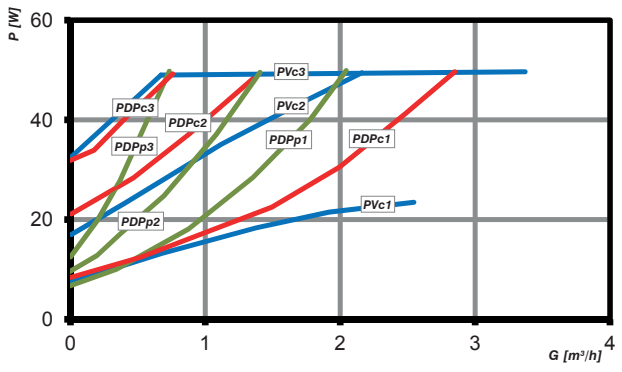


Head and power consumption of the pumps

Head of pump Wilo Para 25-130/7-50/SC-12



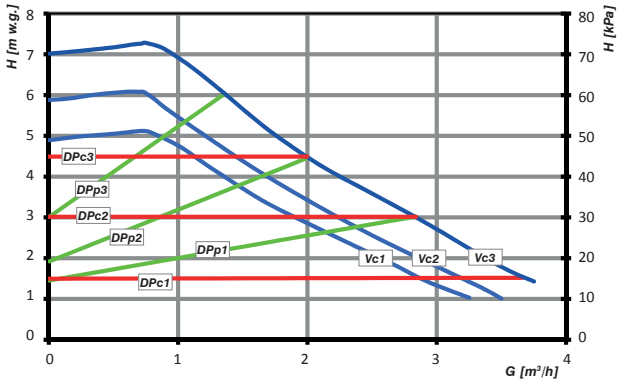
Power of pump Wilo Para 25-130/7-50/SC-12



Vc: Constant speed
DPp: Proportional pressure
DPc: Constant pressure

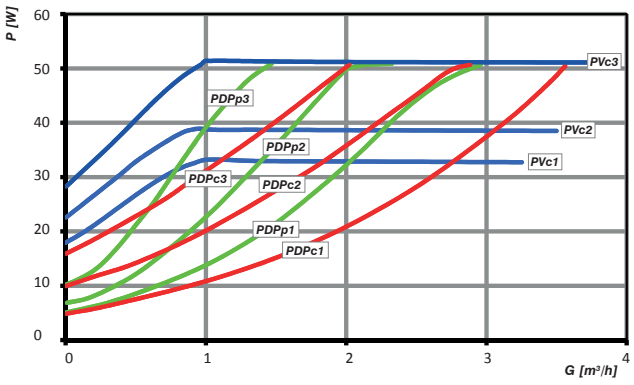
PVc: Power consumption at constant speed
PDPp: Power consumption at proportional pressure
PDPc: Power consumption at constant pressure

Head of pump Grundfos UPM3 AUTO 25-70 180
UPM3 AUTO 32-70 180



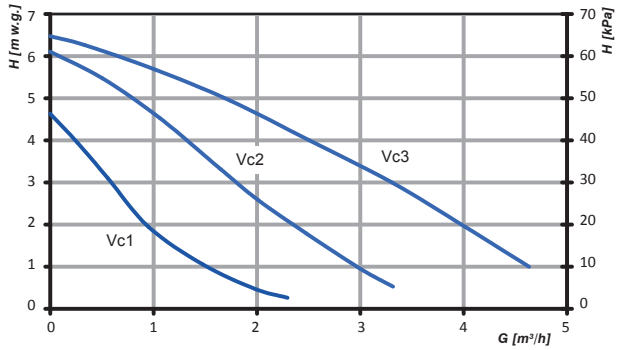
Vc: Constant speed
DPp: Proportional pressure
DPc: Constant pressure

Power of pump Grundfos UPM3 AUTO 25-70 180
UPM3 AUTO 32-70 180



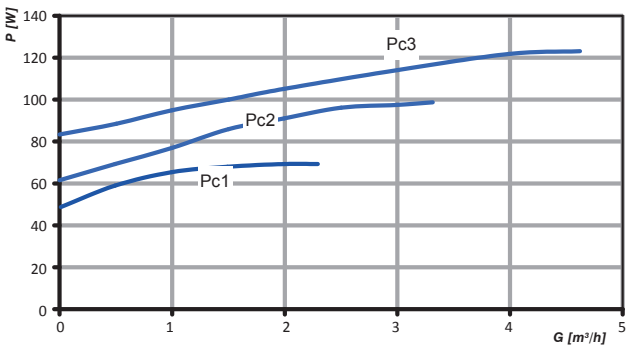
PVc: Power consumption at constant speed
PDPp: Power consumption at proportional pressure
PDPc: Power consumption at constant pressure

Head of pump Grundfos UPSO 25-65 180 (Extra EU)
UPSO 32-65 180 (Extra EU)



Vc: Constant speed

Power of pump Grundfos UPSO 25-65 180 (Extra EU)
UPSO 32-65 180 (Extra EU)

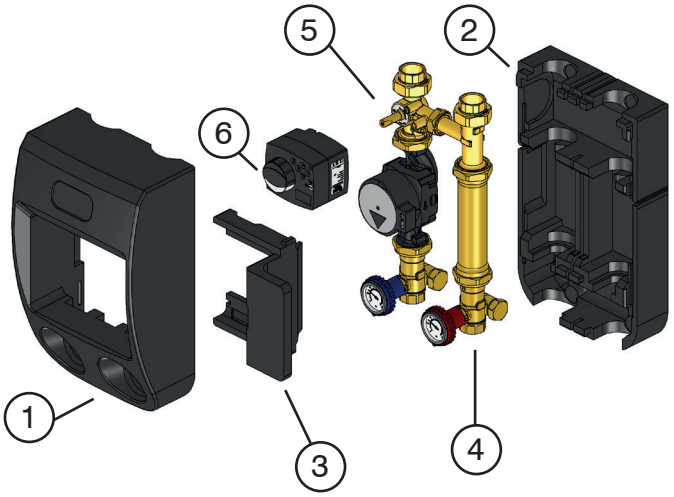


PVc: Power consumption

Features

The distribution and anti-condensation recirculation group consists of:

- Front insulation shell (1),
- Rear insulation shell (2),
- Central front insulation shell (3),
- Flow line (4) including ball shut-off valve, check valve and temperature gauge.
- Return line (5) including anti-condensation thermostatic mixing valve (15G.DN25) or mixing valve equipped with fixed-point actuator (6, for 20G.DN25, 19G.DN32), shut-off valve, temperature gauge and pump.



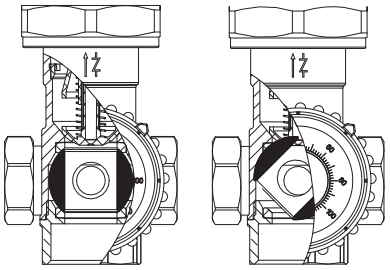
Advantages

Thermostatic sensor: the 15G.DN25 group is equipped with one V14 series anti-condensation valve with the same thermostatic sensors (45-55-60-70 °C) of the valve when sold alone. This allows to keep the same performance and possibility to change the sensors.

Actuator: 20G.DN25 and 19G.DN32 groups are equipped with the P27T2 actuator, the same of the DN 20, DN 25 and DN 32 motorized groups for heating systems, allowing a reduction of the models to be purchased and consequently of the warehouse.

Energy saving: the front (1) and rear shells (2) help the thermal insulation of the group and allow energy saving.

Check valve with override: the 15G.DN25 and 20G.DN25 groups are factory equipped with a check valve on the flow line, placed within the monobloc with red knob. By rotating at 45° the red knob, it is possible to override the check valve function, thus allowing the water passage in two directions and making the filling phase of the system much faster.



Versatility of the wall mounting bracket: the universal bracket 42D.DN25 (accessory) makes it possible to install the group with flow upward, downward or with the group laying on a side. Make sure the group is rigidly fixed onto the wall or, if necessary, increase the safety of the installation.

Transformability: in case of need, the 15G.DN25 and 20G.DN25 groups are easily transformable from one version to the other as they share the vast majority of components.

Pump range: the groups are available with different pump models. For the use of other models and/or manufacturers, it is advisable to contact Barberi for verification.

Flat gaskets: the various components of the groups are connected to each other by means of flat seal fittings. This makes the installation faster by avoiding the use of hemp or other sealants.

Cable glands: the insulation of the groups is equipped with cable glands pointing upward and downward to allow the cables to be laid safely and tidy.

Accessibility and maneuverability of the nuts: by lifting the rear insulation, still applied to the group, it's possible to create the space necessary to maneuver all the nuts, with a suitable hexagonal key, without having to remove it. This is an advantage especially in the wall installation where the insulation is laying against the wall or when pipes pass behind the insulation.

The nuts are supplied loosened to facilitate the group reversion on the installation field. Fully screw the nuts before installing the group.

Working way

The anti-condensation thermostatic mixing valve of the group (or the mixing valve with actuator) takes a part of the generator flow water (through the hot port also called by-pass) and mixes it with the "cold" water returning from the system in order to keep the mixed water temperature, sent back to the generator, at a value equal or higher than the setting value. As a consequence, the flow rates towards the by-pass and the system vary according to the flow temperature from the generator.

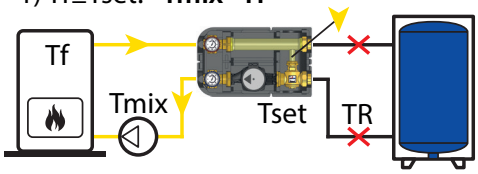
Phase 1: generator start up. When the flow temperature Tf is lower than the valve setting Tset, the valve fully opens only the hot by-pass port: water recirculates between the generator and the group, increasing therefore the generator temperature. No flow rate is supplied to the system.

Phase 2: start of the system loading. When the valve sensor feels that the flow temperature Tf is higher than the valve setting Tset, it makes the cold port begin to open. As a result, water is sent back to the generator at the setting temperature Tmix=Tset. The by-pass hot port gets progressively closed following any further increase of Tf. In this phase, only a part of the total flow rate is supplied to the system.

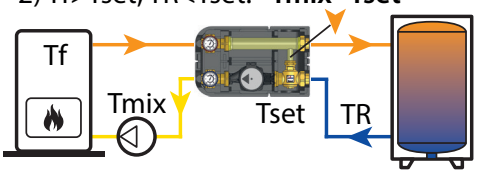
Phase 3: by-pass closing. When the flow temperature Tf increases so much that the return temperature Tr gets 10 °C higher than the valve setting, the by-pass hot port gets fully closed: only the return water flows through the valve (Tmix=Tr) and 100% of the flow rate is supplied to the user.

Phase 4: further loading of the system. With a further increase of the flow temperature, the return temperature increases as well and water is sent to the generator at the return temperature Tr. 100% of the flow rate is supplied to the user.

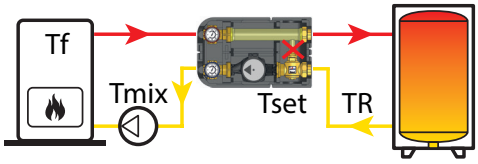
1) Tf≤Tset: **Tmix=Tf**



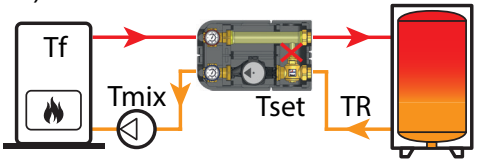
2) Tf>Tset; TR<Tset: **Tmix=Tset**



3) Tf>Tmix=Tset+10 °C: **Tmix=TR**



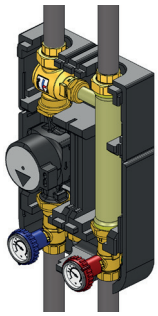
4) Tf>Tmix>Tset+10 °C: **Tmix=TR**

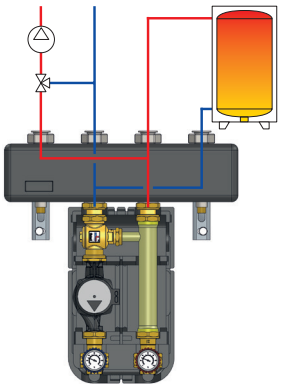


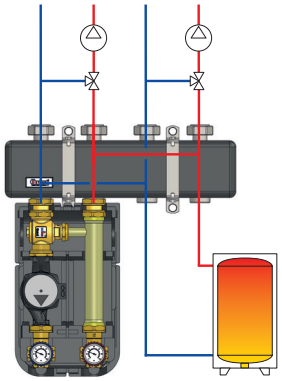
Installation

The mounting options of the group are:
- wall installation,
- manifold installation.

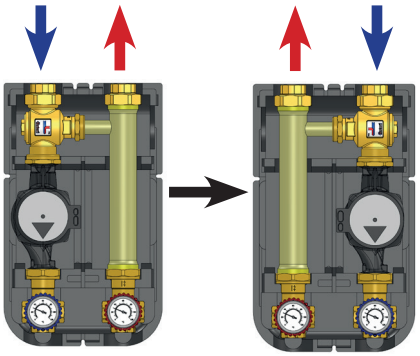
The group is used when the generator is not equipped with built-in pump and therefore it works as primary pump.
It can be installed in one of the following ways:
1) connected to the primary side of the manifolds with integrated hydraulic separator;
2) directly connected to the manifolds (by means of the optional V35 fittings), using one couple of outlets to connect an inertial buffer storage in parallel with the function of hydraulic separator as well (the two drawings here beside show the 15G.DN25 group connected to the P72.DN25 and V34.DN25 manifolds with inertial buffer storage in parallel);
3) directly connected to an inertial storage (which works as hydraulic separator);
4) connected to the primary side of an hydraulic separator;
5) directly connected to the system if no inertial water storage is required.
Please refer to the system diagrams at the end of this datasheet.





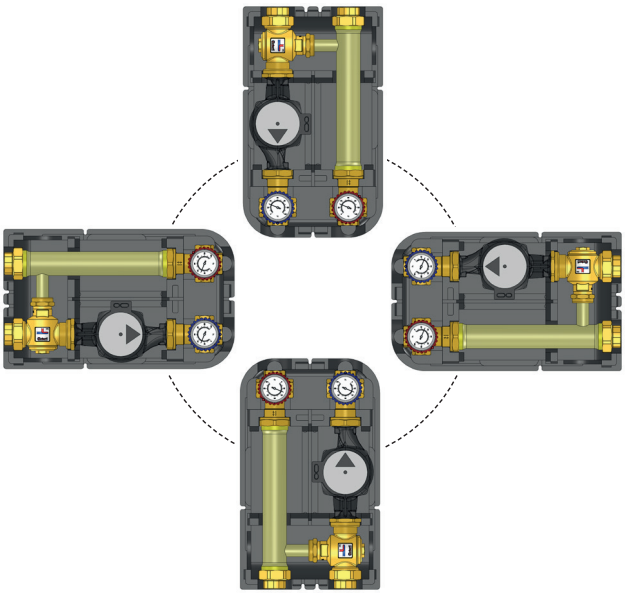


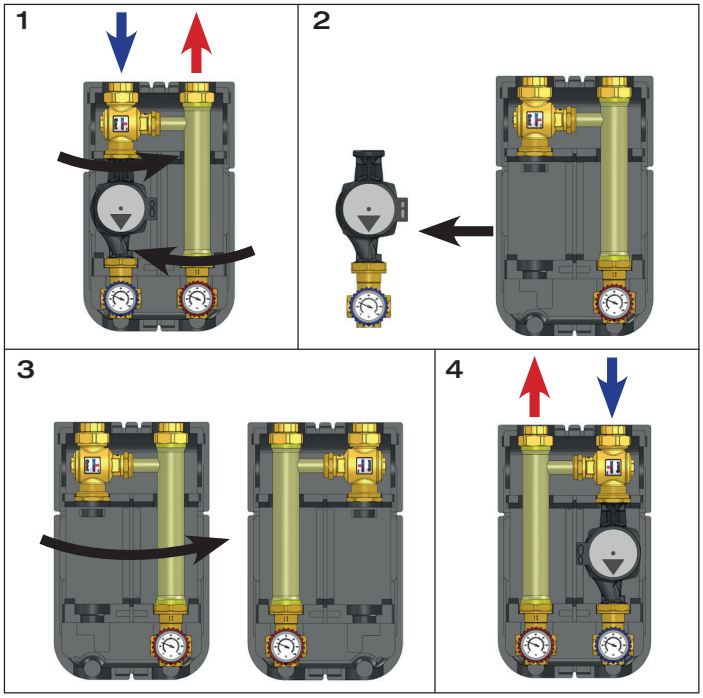
Group reversibility
The group is factory set with pump on the LH side and flow downwards (or, by rotating it, pump on the RH side and flow upwards). The reversibility is allowed on the installation field by the following procedure:



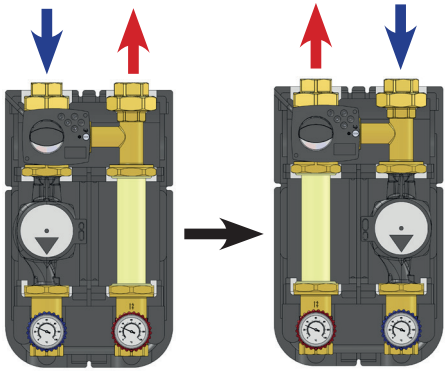
15G.DN25 groups.
1) Fully unscrew the nut between the pump and the anti-condensation mixing valve. Loosen the nut between the red-knob monobloc an the L-extension.
2) Remove the group “pump + blue-knob monobloc“.
3) Exchange the flow line (1) with the return one (2), by rotating 180° around its vertical axis the group “red-knob monobloc + L-extension + anti-condensation valve“. Correctly orient the red-knob monobloc.
4) Connect the pump and the blue-knob monobloc to the rest of the group again and fully screw the nuts.
Warning: due to the presence of a check valve, keep the ball shut-off valve with red knob on the flow line and the blue knob connected to the pump. For some pump models, it is necessary to rotate the electronic part to place it within the insulation.

Group position
The group can be installed in one of the ways shown in the picture, with the pump rotation axis always horizontal.

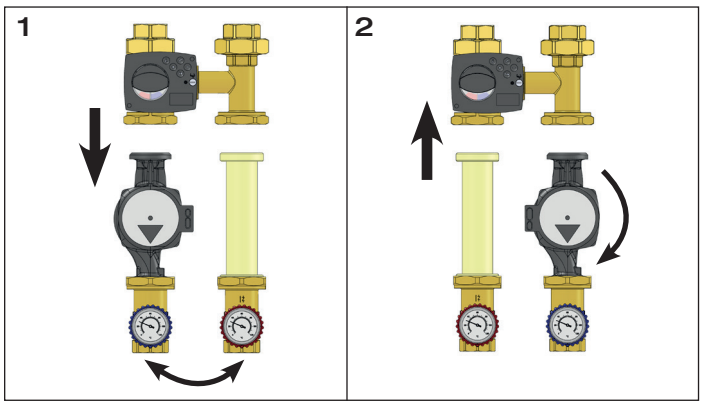




20G.DN25, 19G.DN32 groups.

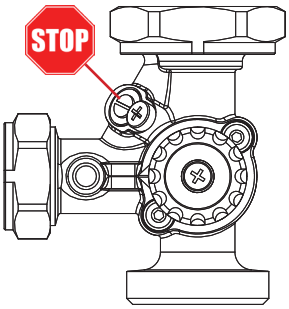


1) Fully unscrew the extension from the T-joint and the pump from the mixing valve.
2) Exchange the group "pump + blue-knob monobloc" with the group "extension + red-knob monobloc".
3) Leave the mixing valve and the T-joint in the factory position: in this new configuration, the mixing valve will work as diverting valve.
4) Move the controller probe onto the new return line to the generator, downstream of the pump.
5) Connect all the components again and fully screw the nuts.
Warning: due to the presence of a check valve, keep the ball shut-off valve with red knob on the flow line and the blue knob connected to the pump. For some pump models, it is necessary to rotate the electronic part to place it within the insulation.



By-pass setting

In the 20G.DN25 and 19G.DN32 groups, the mixing valve is equipped with a built-in adjustable by-pass. Since the valve is installed on the return to the generator, we suggest to keep it in closed position (factory set), in order to leave the regulation of the water temperature, returning to the generator, as a task only for the valve with actuator.

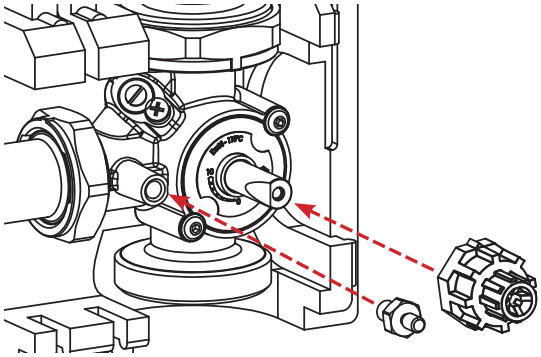


Installation of the actuator (20G.DN25, 19G.DN32)

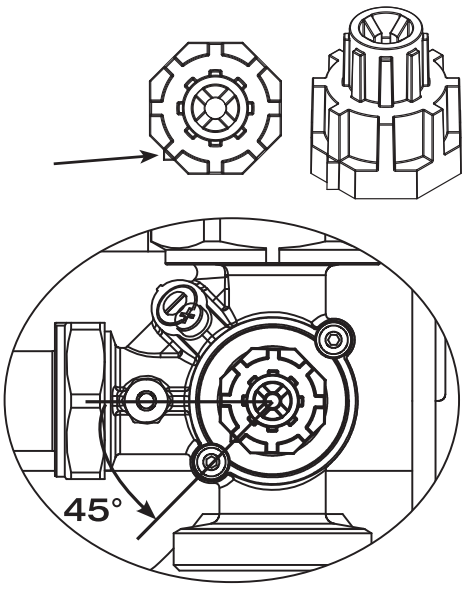
To install the actuator, follow its instructions supplied in the package and these steps. The fixed-point P27230010T2 actuator is supplied with the components in picture: actuator (1), Pt 1000 probe (2), mixing valve adaptor (3), anti-rotation pins (4), locking screw (5) (hidden by the knob).

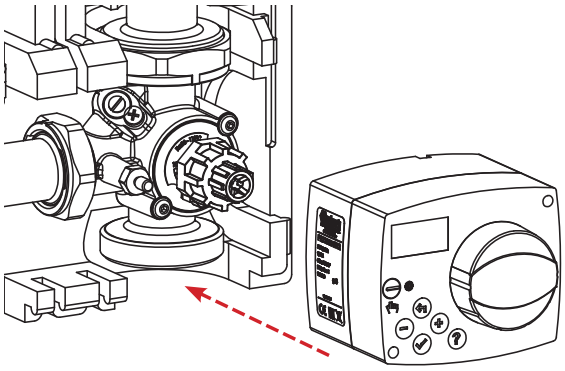
1) Check if the indicator on the transparent part of the actuator knob is at half way run (factory setting), in the middle between the red and the blue scale on the actuator (1). If necessary, restore this configuration by selecting the manual mode (acting with a screwdriver on the clutch button) and rotating the knob. Set again the automatic mode through the clutch.

2) Insert the adaptor (3) on the valve stem and screw the anti-rotation pin (4).



3) Rotate the valve obturator, acting on the adaptor, positioning the index on the adaptor (3) at 45° between the hot inlet port and the system return port (corresponding to half way of the mixing valve run).





4) Apply the actuator (1) as in the picture and screw it with the locking screw (5). This configuration corresponds to a 50% mixing mode (hot and cold port half way open).

Place the probe (2) on the pipe, returning to the generator, by using the provided contact probe holder or immersing it in a pocket, specifically installed.

Connect the actuator to the electric supply: after setting the parameters, the integrated regulator will keep the water temperature, returning to the boiler, at the constant set value by acting on the valve ports.

This procedure is valid also for the group reversed on the installation field.

Accessories

42D.DN25

Bracket for wall mounting of the distribution and regulating groups, with screws and anchors

Hole centre distance: ***90 mm***
Hole diameter: ***8 mm***

Code		
42D 025 Z00 I	1	25

V14.5R woody

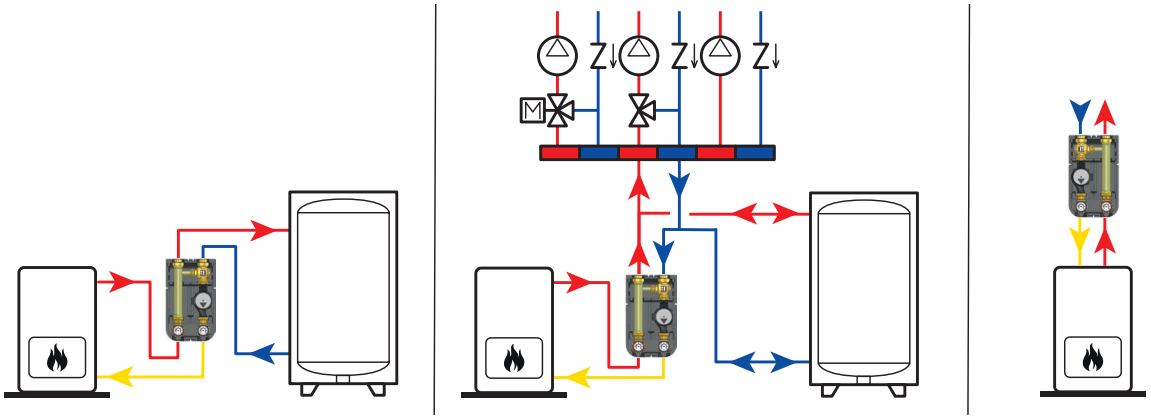
Thermostatic element for anti-condensation thermostatic mixing valve V14, V14.L1, V14.1

Setting temperature: ***45-55-60-70 °C***

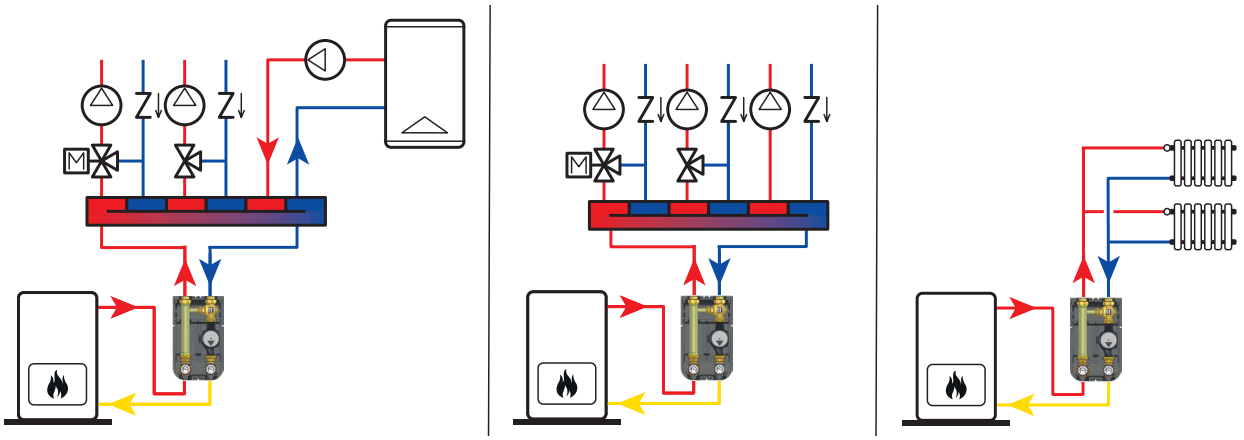
Code	°C		
V14 025 005 AR	45	-	-
V14 025 005 BR	55	-	-
V14 025 005 CR	60	-	-
V14 025 005 DR	70	-	-

System diagrams

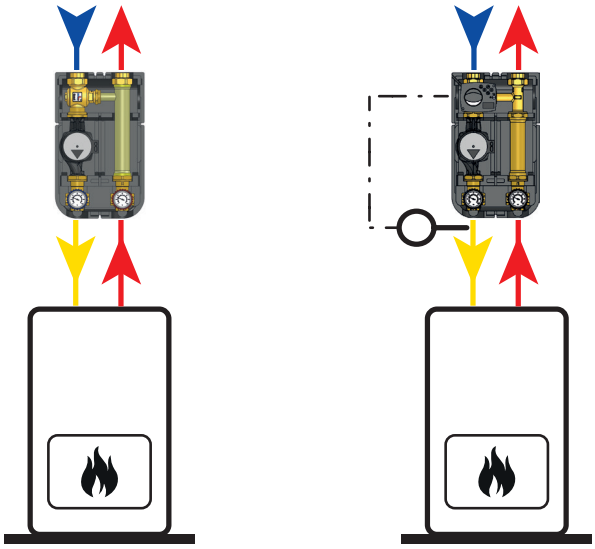
15G.DN25: direct connection to buffer storage - buffer storage in parallel - installation upon the generator



15G.DN25: two generator coupling - connection to system with separator/manifold - direct connection to system



The same diagrams, suitable for the 15G.DN25 groups, can be realized with the anti-condensation motorized groups 20G.DN25 and 19G.DN32. Please pay attention to the correct position of the actuator probe on the return line to the solid fuel generator (see example diagram here at the side).



Specifications

Series 15G.DN25
Distribution and anti-condensation recirculation group with anti-condensation thermostatic mixing valve. G 1 F threaded connections. Centre distance between flow and return connections 125 mm. Height of flow and return lines 388 mm. Dimensions of the group with shell 247x410x212 mm (Width x Height x Depth). The group is composed of: anti-condensation thermostatic mixing valve in brass with wax thermostatic sensor, brass body and obturator, EPDM gaskets, stainless steel spring, anti-condensation setting 45-55-60-70 °C, temperature of by-pass hot port fully closing Tmix=Tset+10 °C=TR, accuracy ±2 °C; ball shut-off valves in brass on the flow and return of the secondary circuit; POM check valve on the flow line; flow and return temperature gauges with 0–120 °C scale. High-efficiency pump Grundfos UPM3 AUTO 25-70 180 (Wilo Para 25-180/7-50/SC-12 and 3 constant speed pump Grundfos UPSO 25-65 180 (Extra EU)), electric supply 230 V (50 Hz). Insulation shell in EPP. Working temperature range 5–90 °C. Maximum working pressure 10 bar. Reversible group. Without connections for optional differential by-pass valve.

Series 20G.DN25
Distribution and anti-condensation recirculation group with mixing valve and fixed-point actuator. G 1 F connections. Centre distance between flow and return connections 125 mm. Height of flow and return lines 388 mm. Dimensions of the group with shell 247x410x212 mm (Width x Height x Depth). The group is composed of: mixing valve in brass fitted to be actuated; ball shut-off valves in brass on the flow and return of the primary circuit; POM check valve on the flow line; flow and return temperature gauges with 0–120 °C scale. High-efficiency pump Grundfos UPM3 AUTO 25-70 180 (Wilo Para 25-180/7-50/SC-12 and 3 constant speed pump Grundfos UPSO 25-65 180 (Extra EU)), electric supply 230 V (50 Hz). Complete with 3 point fixed-point actuator P27230010T2 with torque 6 N·m, protection class IP 42, electric supply 230 Vac-50/60 Hz, power consumption 1,5 VA, running time 120 s (90°), supply cable length 1,9 m, temperature probe Pt 1000. Insulation shell in EPP. Working temperature range 5–90 °C. Maximum working pressure 10 bar. Reversible group. Without connections for optional differential by-pass valve.

Series 19G.DN32
Distribution and anti-condensation recirculation group with mixing valve and fixed-point actuator. G 2 M – G 1 ¼ F connections. Centre distance between flow and return connections 125 mm. Height of flow and return lines 405 mm. Dimensions of the group with shell 247x410x212 mm (Width x Height x Depth). The group is composed of: mixing valve in brass fitted to be actuated; ball shut-off valves in brass on the flow and return of the primary circuit; POM check valve on the flow line; flow and return temperature gauges with 0–120 °C scale. High-efficiency pump Grundfos UPM3 AUTO 32-70 180 (and 3 constant speed pump Grundfos UPSO 32-65 180 (Extra EU)), electric supply 230 V (50 Hz). Complete with 3 point fixed-point actuator P27230010T2 with torque 6 N·m, protection class IP 42, electric supply 230 Vac-50/60 Hz, power consumption 1,5 VA, running time 120 s (90°), supply cable length 1,9 m, temperature probe Pt 1000. Insulation shell in EPP. Working temperature range 5–90 °C. Maximum working pressure 10 bar. Reversible group. Without connections for optional differential by-pass valve.