

Compact mixing group

Art. M061 - M061...172

ICMA

ST.M061.08.26.EN

/ Description

ICMA mixing group M061 is designed for underfloor heating systems, in combination with distribution manifolds.

It maintains the fluid delivery temperature stable to the set value. The delivery temperature adjustment is done simply by means of a graduated cap.

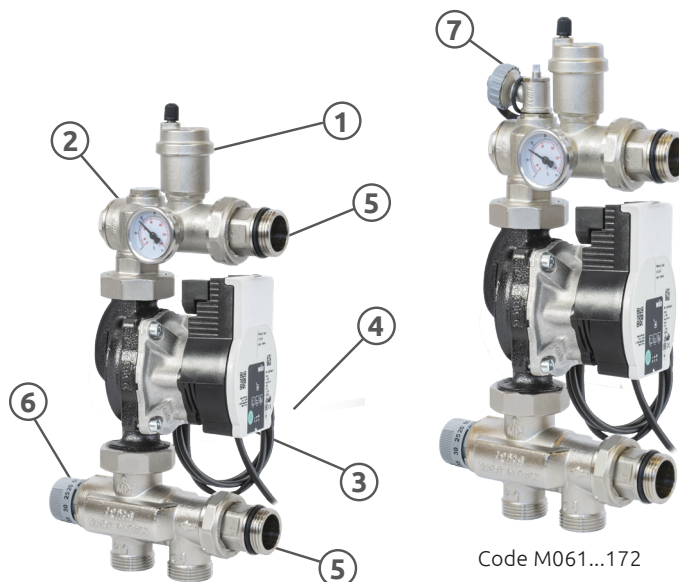
/ Group advantages

- Right / left reversibility (with respect to the manifold).
- No sensors.
- Compactness.
- Mixing accuracy.

/ Components List

Fixed point mixing group components:

1. Automatic air vent
2. Thermometer 0/60°C
3. Circulator
4. Power cable
5. Union nuts G1" with O-Ring sealing for manifolds
6. Fixed-point thermostatic valve 20-50°C
7. 3/4" water filling and drain tap **(available only for articles with code "172", see the tables in the next page.)**



Code M061

Code M061...172

/ Technical features

TECHNICAL DATA:

Fluids used:	Water and glycol based solutions
Maximum percentage of glycol:	30%
Temperature range of boiler inlet:	5÷110°C
Mixing temperature range:	20÷50°C
Thermometers scale:	0÷60°C
Maximum operating pressure:	10 bar
Maximum differential pressure:	1 bar
Power supply:	230 V – 50 Hz
Circulators:	See specification on page 3

MATERIALS:

Valve bodies and fittings:	Brass CW617N - UNI EN 12165
Mixing valve body:	Brass CB753S - UNI EN 1982:2017
Unions and nuts:	Brass CW617N - UNI EN 12165
Thermometer:	Steel/Aluminium
O-rings and gaskets:	EPDM Perox

CONNECTIONS:

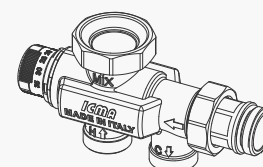
Boiler connection threads:	G1" M
Collectors connection threads:	G1" M

MIXING VALVE:

Fluids used:	Water and glycol based solutions
Maximum percentage of glycol:	30%
Maximum operating pressure:	10 bar
Operating temperature:	20-50°C

Code 93793AE062050

Operating temperature: 20°-50°C



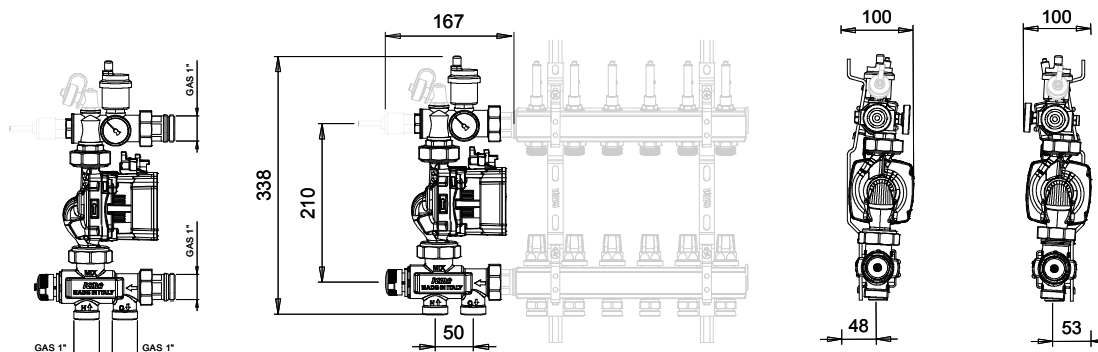
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Dimensions



Groups without 3/4" water filling and drain tap		
Thread dimensions	Code	Circulator
G1" M	87M0615006	NO PUMP
G1" M	87M0615006P321W	WILO PARA RS 25/40 130
G1" M	87M0615006P327	WILO PARA RS 25/80 130
G1" M	87M0615006P331	SHINHOO 25-70 130
G1" M	87M0615006P329	TACO ES2 15-70/130
G1" M	87M0615006P330	WILO PARA 25/7 130

Groups with 3/4" water filling and drain tap		
Thread dimensions	Code	Circulator
G1" M	87M06150172	NO PUMP
G1" M	87M06150172P328	GRUNDFOS UPM3 HYBRID 25/65 130
G1" M	87M06150172P330	WILO PARA 25/7 130
G1" M	87M06150172P331	SHINHOO 25-70 130
G1" M	87M06150172P329	TACO ES2 15-70/130
G1" M	87M06150172P330	WILO PARA 25/7 130

Functioning

The picture below shows a group with left side delivery set at 35 °C. The "RT" room thermostat controls the recirculation pump passing through the "ST" safety thermostat P310 (optional), activating the system when the room temperature goes below the set value.

The connections to the unit pass through an hydraulic separator "HS", which sends the heat transfer fluid to the heating zones.

The thermostatic mixer works continuously to maintain the temperature previously set by cap adjustment.

The thermostatic mixer works in two different positions during its operation:

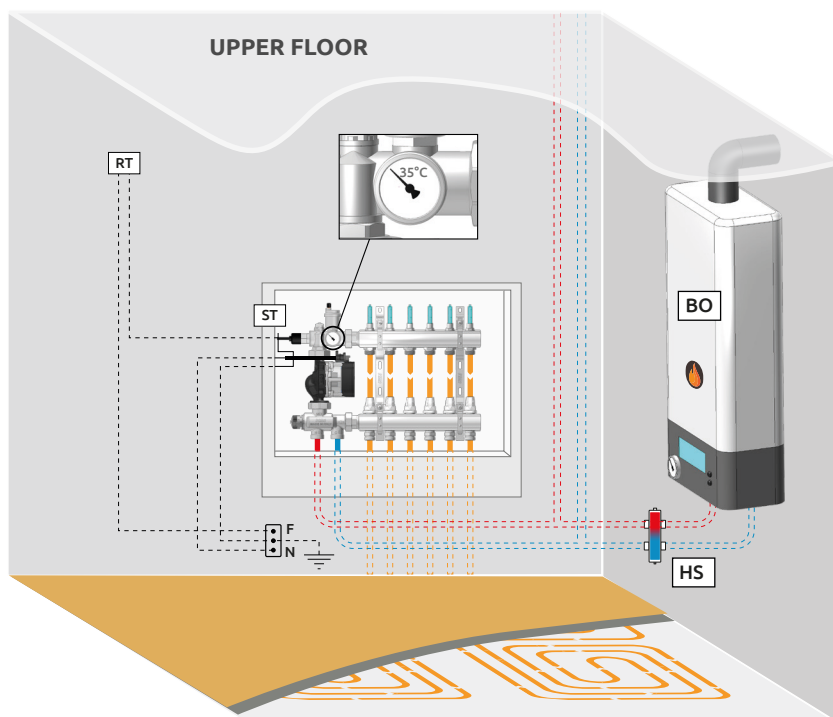
1. ADJUSTMENT POSITION:

If the temperature of the mixed water is lower than 35°C, the heat transfer fluid coming from the "BO" boiler is mixed with that returning from the system.

2. CLOSURE POSITION:

If the temperature of the mixed water is higher than 35°C, the delivery is cut off. The heat transfer fluid coming from the return circuit is recirculated in the system.

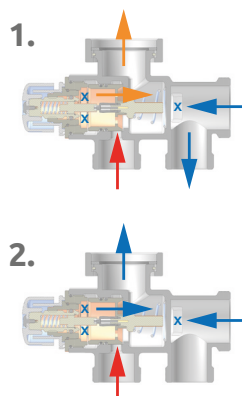
If the secondary delivery temperature exceeds 50 °C, the TS safety probe opens the contact and switches off the circulator. This prevents radiant system damage due to prolonged exposure to overheating.



RA: Room Thermostat
BO: Boiler
HS: Hydraulic Separator
ST: Safety thermostat P310



Reference



Position	20°C	25°C	30°C	35°C	40°C	45°C	50°C
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/ Group customization

Circulation pumps (Saleable in Extra-EU countries only)



Art. P321W – Asynchronous Circulator (intended for sale outside the EU)

TECHNICAL SPECIFICATIONS:

Brand:	Wilo
Model:	PARA 25-65 230 MM
Centre-to-centre distance between couplings:	130 mm
Connections:	G 1"1/2 M
Power supply:	230V – 50Hz
Operating temperature:	+2°C ÷ 110°C.
Max. operating pressure:	10 bar
Degree of protection:	IP44

Circulation pumps (Saleable in UE countries)



Art. P327 - Circulator with ΔP constant and ΔP variable:

TECHNICAL SPECIFICATIONS:

Brand:	Wilo
Model:	PARA RS 25/8 130
Centre to centre distance:	130 mm
Connections:	G 1"1/2 M
Electrical power supply:	230V – 50/60Hz
Operating temperature:	Ambient. temp. 50°C = 2 ÷ 105°C Ambient. temp. 55°C = 2 ÷ 90°C Ambient. temp. 60°C = 2 ÷ 77°C Ambient. temp. 65°C = 2 ÷ 66°C
Max operating pressure:	10 bar
Minimum pressure on the intake side:	0,5 bar
Max. percentage of glycol:	50%
Protection level:	IPx4D
Energy class (EEI):	≤0.21



Art. P329 - Circulator with nr. 2 proportional-pressure curves, nr. 2 constant-pressure curves, min-max mode – Fixed speed

TECHNICAL SPECIFICATIONS:

Brand:	Taco
Model:	ES2 25-70/130
Centre to centre distance:	130 mm
Connections:	G 1"1/2 M
Electrical power supply:	230V – 50/60Hz
Operating temperature:	Ambient. temp. 30°C = 30 ÷ 95°C Ambient. temp. 35°C = 35 ÷ 90°C Ambient. temp. 40°C = 40 ÷ 70°C
Max operating pressure:	6 bar
Minimum pressure on the intake side:	50°C = 0,3 bar 95°C = 1,0 bar
Max. percentage of glycol:	30%
Protection level:	IP44
Energy Class (EEI):	≤0.21

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Art. P331 - Wet-rotor circulator driven by a permanent magnet motor. Features a self-adaptive mode, enabled by default

TECHNICAL SPECIFICATIONS:

Brand:	Shinoo
Model:	GPA 25/70 III
Centre to centre distance:	130 mm
Connections:	G 1"1/2 M
Electrical power supply:	230V – 50/60Hz
Operating temperature:	Ambient. temp. . 30°C = 30 ÷ 110°C Ambient. temp. . 50°C = 50 ÷ 110°C Ambient. temp. . 70°C = 70 ÷ 110°C
Max operating pressure:	10 bar
Minimum pressure on the intake side:	75°C = 0,05 bar 95°C = 0,5 bar 110°C = 1,08 bar
Max. percentage of glycol:	50%
Protection level:	IP44
Energy Class (EEI):	≤0.2



Art. P330 - Circulator with fixed ΔP, variable ΔP and 3 constant speed:

TECHNICAL SPECIFICATIONS:

Brand:	Wilo
Model:	PARA RS 25/7 130
Centre to centre distance:	130 mm
Connections:	G 1"1/2 M
Electrical power supply:	230V – 50/60Hz
Operating temperature:	Ambient. temp. 50°C = 2 ÷ 105°C Ambient. temp. 55°C = 2 ÷ 90°C Ambient. temp. 60°C = 2 ÷ 77°C Ambient. temp. 65°C = 2 ÷ 60°C
Max operating pressure:	10 bar
Minimum pressure on the intake side:	0,5 bar
Max. percentage of glycol:	50%
Protection level:	IPx4D
Energy Class (EEI):	≤0.21

/ Accessories



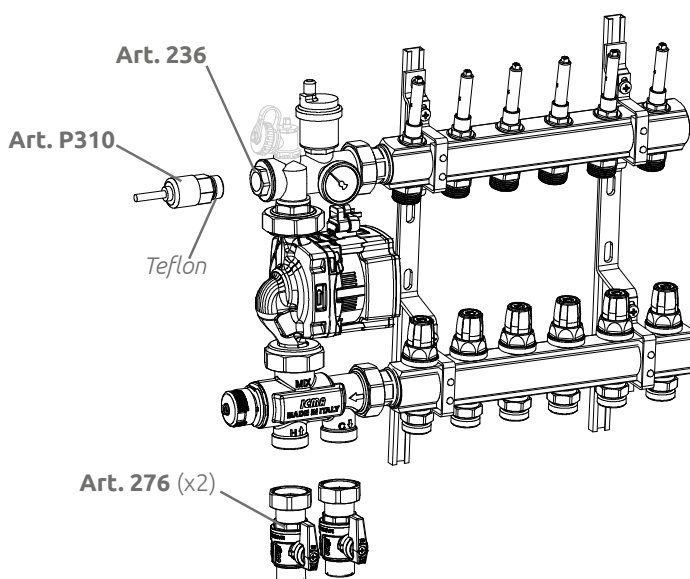
Art. P310 - Code 88P3100199
Safety thermostat. It stops the pump when reaching 50°C.
Requires the end cap art. 236 *.



***Art. 236 - Code 87236LE05**
Hollow end cap. Female 1"-1/2".



Art. 276 - Code 87276AF11
Ball valve with revolving nut and flat seat. Male 3/4" / Female 1".



Compact mixing group

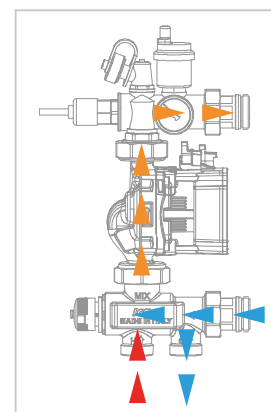
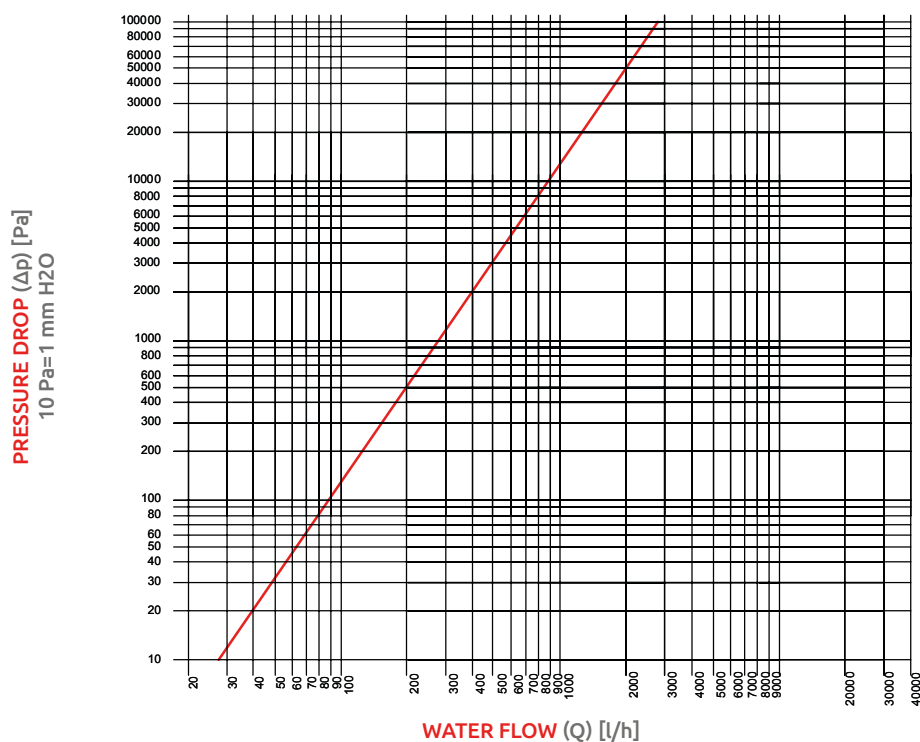
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/ Hydraulic Specifications

Compact mixing group Art. M061
PRESSURE DROP DIAGRAM



Kv m ³ /h	2.7
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/ Positioning

Group orientation

