

Compact mixing group

Art. M060



ST.M060.08.26.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 thermostatic head.

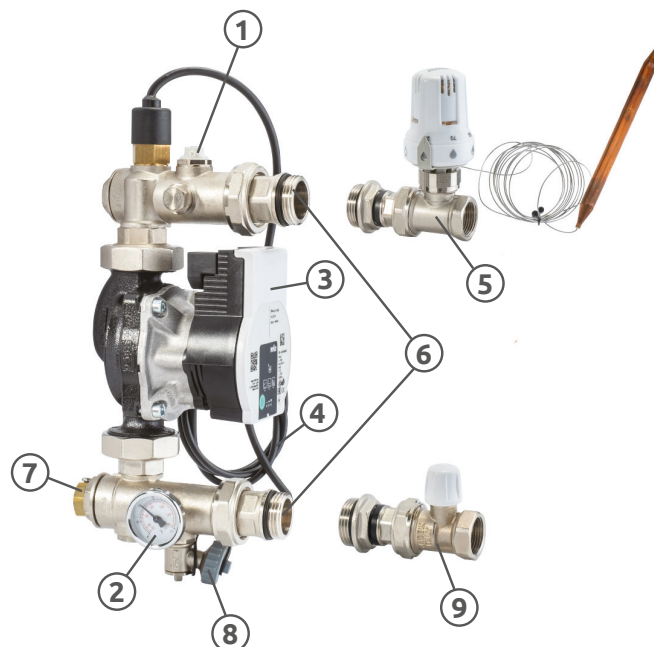
Group advantages

- Right / left reversibility (with respect to the manifold).
- Mixing accuracy.

Components List

Fixed point mixing group components:

1. Automatic air vent
2. Thermometer 0/60°C
3. Circulator
4. Power cable
5. Fixed-point thermostatic valve 20-70°C
6. Union nuts G1" with O-Ring sealing for manifolds
7. Element holder
8. Water filling and drain tap
9. Lockshield



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

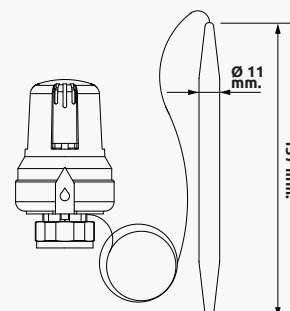
Valve bodies and fittings:	Brass CW617N - UNI EN 12165
Unions and nuts:	Brass CW617N - UNI EN 12165
Thermometer:	Steel/Aluminium
O-rings and gaskets:	EPDM Perox

CONNECTIONS

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

Thermostatic head (Code: 82991AC20)

Maximum operating temperature:	110°C
Maximum operating pressure:	10 bar
Temperature setting range:	20°C-50°C
Body:	Nylon66 F.G. 30%
Spring:	Stainless steel
Ferrule:	Brass CW 614 N UNI EN 12164
Element:	Composite
Maximum differential pressure (mixing valve):	0,2 - 0,25 bar



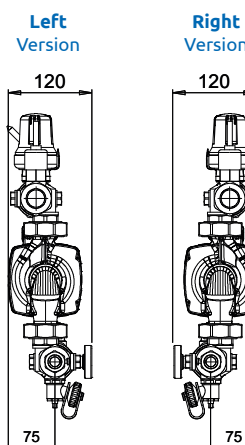
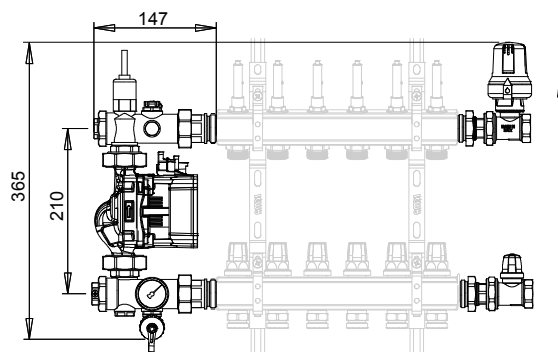
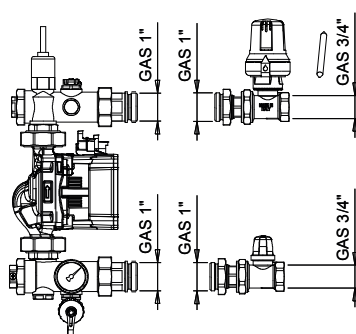
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/ Dimensions



Thread dimensions	Code	Circulator
G1" M	87M060PGP06	NO PUMP
G1" M	87M060PG06P331	SHINHO 25/70
G1" M	87M060PG06P330	WILO PARA 25/7
G1" M	87M060PG06P329	TACO ES2 25-70/130

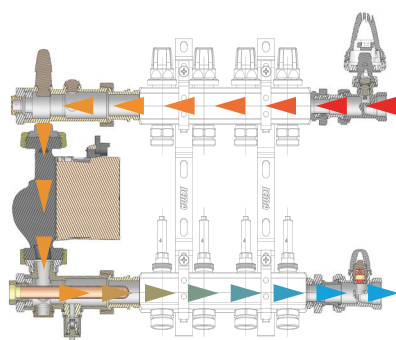
/ Functioning

The picture below shows a group with left side delivery set at 40°C. The "RT" room thermostat controls the recirculation pump, 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 valve works continuously to maintain the temperature previously set by manual adjustment.

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

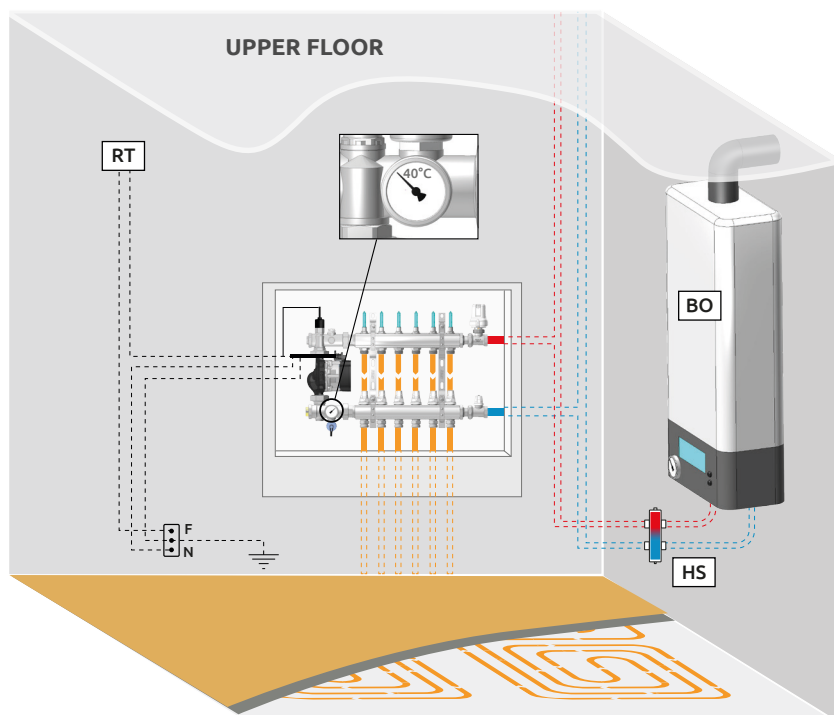
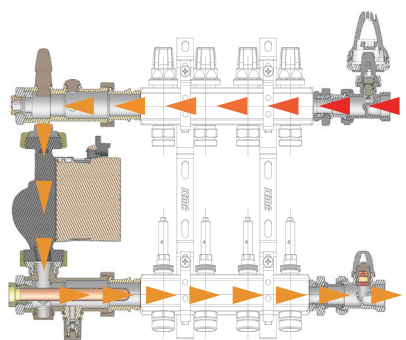
1. ADJUSTMENT POSITION:

In case of thermostatic head set on 40*, and $T_{mix} < 40^\circ$, the heat transfer fluid coming from the boiler "BO" is mixed with the return fluid from the system.

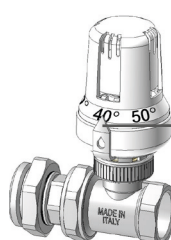


2. CLOSURE POSITION:

In case of thermostatic head set on 40*, and $T_{mix} > 40^\circ$, the thermostatic valve excludes the heat-carrying fluid coming from the boiler completely, to let the underfloor heating return fluid recirculate.



RT: Room thermostat
BO: Boiler
HS: Hydraulic separator



* Reference

Position	20°C	30°C	40°C	50°C	60°C	70°C
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/ Group customization

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 (EEL):	≤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 (EEL):	≤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 (EEL):	≤0.21

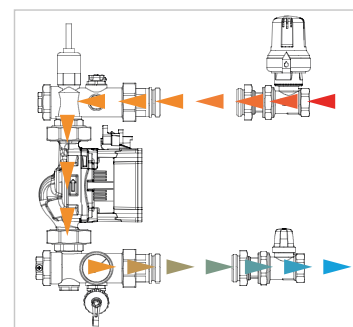
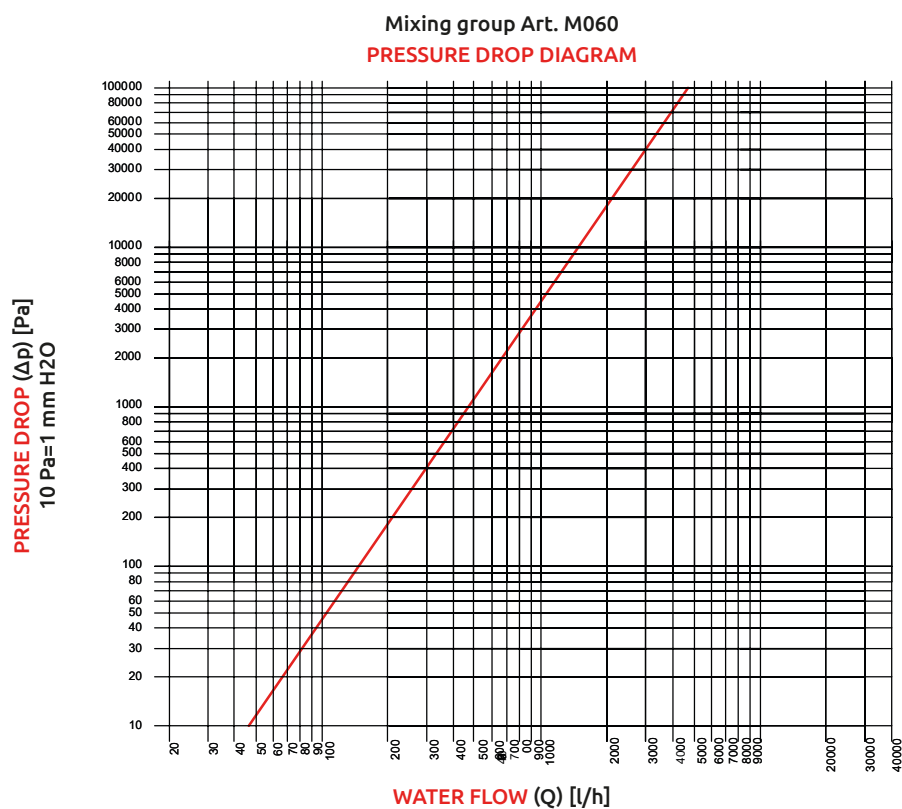
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/ Hydraulic Specifications



Kv m3/h

4.8

/ Positioning

Group orientation

