

5582ISOL / 5582 / 5583 / 5584ISOL / 5584

COMPACT MULTIZONE DISTRIBUTION BOX MODULES FOR HEATING AND COOLING SYSTEMS

(DIRECT , FIXED POINT MIXED AND MOTORIZED MIXED PUMPING)



DESCRIPTION

Tiemme multizone distribution modules are able to ensure the right flow rate of carrier fluid and an adequate prevalence in all heating/cooling systems that require an additional performance compared to the boiler circulating pump.

The compact dimensions allow the module to be installed in the vicinity of the 24 kW wall boilers.

With the mixed zone (fixed or motorized point) it is also possible to manage and modify the delivery temperature of the heating zones with respect to the generator delivery temperature.

The hydraulic separator integrated in the module ensures the hydraulic disconnection of the generator from the heating zones making them hydraulically independent.

The module includes inside the metal box all the hydraulic components necessary for the operation of the individual heating zones. Each zone is supplied as standard with Grundfos UPM3 Hybrid, ErP-Ready circulating pump.

The single zone includes, in addition to the circulating pump, the delivery and return valves, the non-return valves and the analog thermometers.

It is possible to exclude the non-return valve in case of maintenance of the system. Each valve also integrates a probe holder well to be able to check the temperature, both in delivery and in return.





Its particular structure allows you to make the most of the installation space but without compromises in maintainability.

The modules are supplied complete with a metal box painted with powders, to be hung on the wall or built-in.

ADVANTAGES/STRENGTHS

- Integrated hydraulic separator;
- Management of up to 3 heating and cooling zones;
- Management of direct and mixed zones (thermostatic - electronic);
- Generator power management up to 34 kW;
- Maximum integration in existing plants;
- Reduction of spaces;
- Maximum efficiency
- Lower installation costs;
- 100% comfort;
- ERP ready.

PRODUCT RANGE

	Art.	Code	Zones			Field of application
			Direct	Mixed fixed point (thermostatic)	Motorized Mixed	
	5582ISOL	316 0133	No. 2	-	-	Heating and cooling
	5582	316 0134	No. 3	-	-	Heating
	5583	316 0135	No. 1	No. 1	-	Heating
		316 0136	No. 2	No. 1	-	
		316 0137	No. 1	No. 2	-	
		316 0149	-	No. 2	-	
	5584ISOL	316 0138	No. 1	-	No. 1	Heating and cooling
		316 0139	No. 2	-	No. 1	
	5583	316 0140	No. 1	-	No. 2	Heating

TECHNICAL AND MANUFACTURING SPECIFICATIONS

▪ Nominal diameter:	DN20
▪ Max Pressure:	PN10
▪ Working temperature range min - max.:	+ 5 °C ÷ 95 °C (110 °C peak)
▪ Fluid compatibility:	Water and glycol solutions (maximum glycol percentage 30%)
▪ System side valves:	DN20
▪ P non-return valve opening:	ΔP: 2kPa (200mm a.c.)
▪ Degree of protection:	IPX0D
▪ Copper Tubes:	18mm
▪ Generator connections:	3/4" M – 320 mm centre to centre distance
▪ Heating connections:	3/4" F – 70 mm centre to centre distance
▪ Separator chamber/water volume:	DN50 / 1.5 l

DIRECT ZONE

▪ Circulating pump:	Grundfos UPM3 Hybrid 15-70 Erp ready
▪ Max Flow Rate:	2,100Ltr/hr *
▪ Max. power ΔT 20 °C:	35 kW
▪ Residual head at 1000 l/h:	6.4 m.c.a.
▪ Single Electrical Absorption:	Max 52W

MIXED ZONE (FIXED POINT)

▪ Circulating pump:	Grundfos UPM3 Hybrid 15-70 Erp ready
▪ Mixing valve:	1" M
▪ Mixing valve calibration:	20 °C ÷ 55 °C - Kvs 2.3 *
▪ Max Flow Rate:	1,300Ltr/hr*
▪ Max power ΔT 10 °C:	14 kW
▪ Residual head at 1000 l/h:	3.8 m.c.a.
▪ Electrical absorption:	Max 52 W

MIXED ZONE (MOTORIZED)

▪ Circulating pump:	Grundfos UPM3 Hybrid 15-70 Erp ready
▪ Mixing valve:	1" M
▪ Mixing valve motor:	3pt, 230V
▪ Max Flow Rate:	1,900Ltr/hr *
▪ Max power ΔT 10°C:	14 kW
▪ Residual head at 1000 l/h:	6.2 m.c.a.
▪ Electrical absorption:	Max 52 W

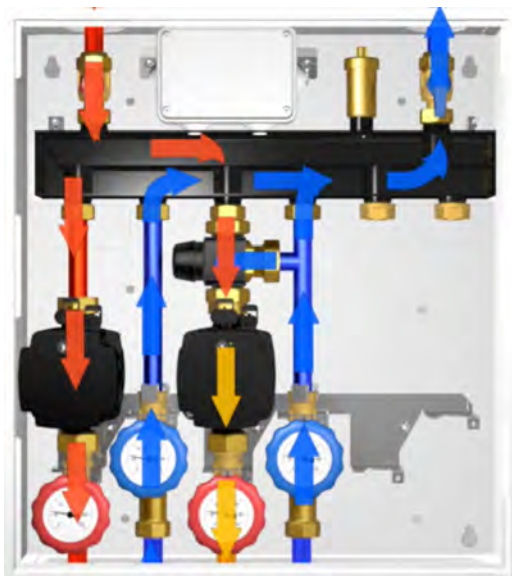
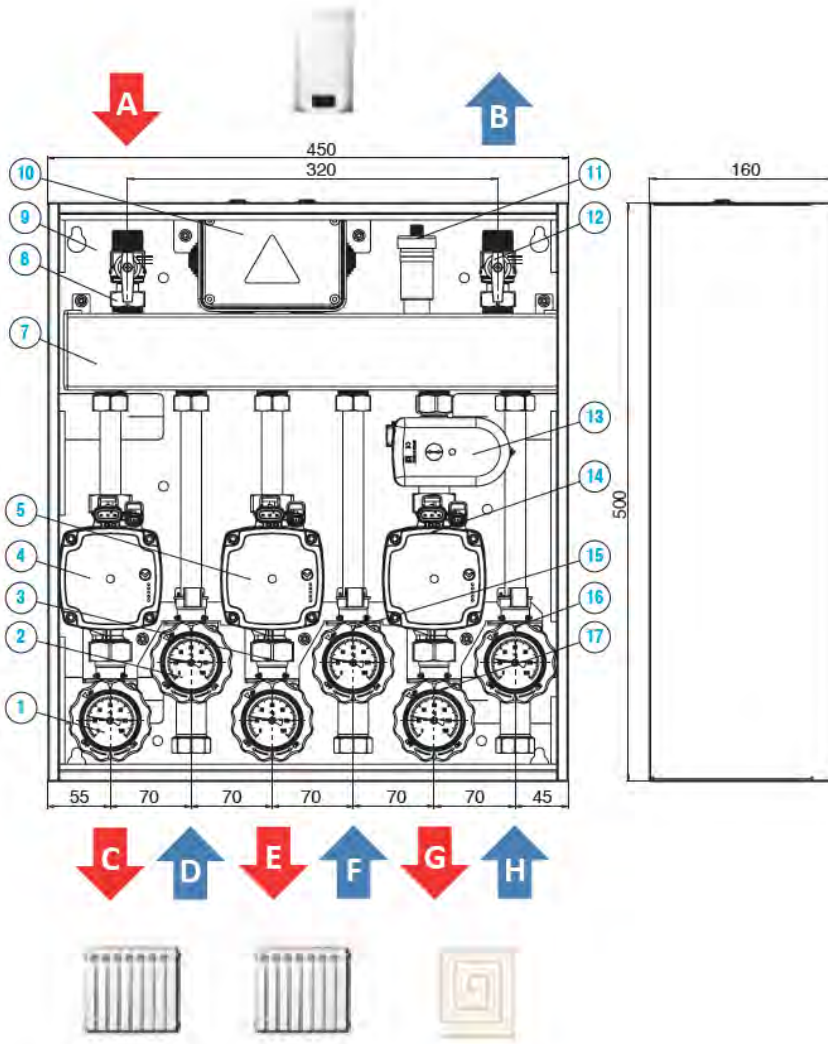
* ref. with residual pressure 2 m.c.a.

DESCRIPTION OF COMPONENTS / DIMENSIONAL SPECIFICATIONS

KEY:

- A** Generator Delivery
- B** Generator Return
- C** Zone 1 Delivery
- D** Zone 1 Return
- E** Zone 2 Delivery
- F** Zone 2 Return
- G** Zone 3 Delivery
- H** Zone 3 Return

- 1 Zone 1 Delivery tap
- 2 Zone 1 Return tap
- 3 Zone 2 Delivery tap
- 4 Zone 1 circulating pump
- 5 Zone 2 circulating pump
- 6 -
- 7 Hydraulic separator
- 8 Generator delivery tap
- 9 Metal box
- 10 Electrical support box
- 11 Automatic air vent
- 12 Generator return tap
- 13 Zone 3 Mixing valve
- 14 Zone 3 circulating pump
- 15 Zone 2 Return tap
- 16 Zone 3 Delivery tap
- 17 Zone 3 Return tap



HYDRAULIC SPECIFICATIONS

Diagram 1: DIRECT CIRCUIT residual head

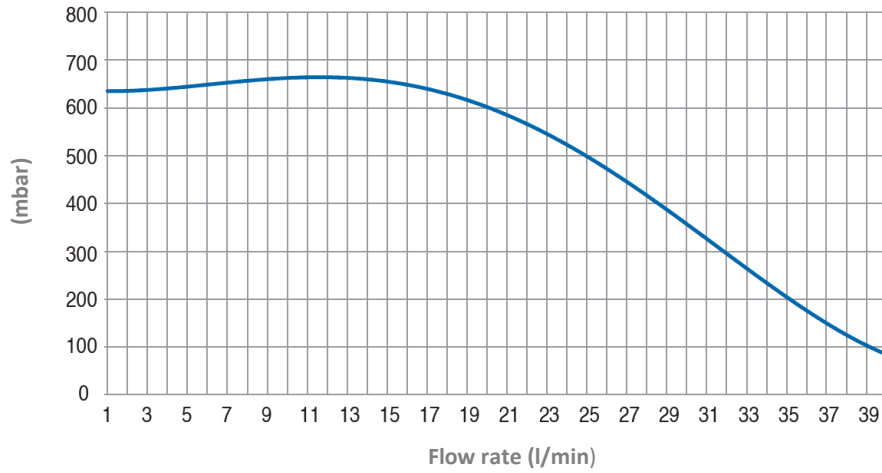


Diagram 2: THERMOSTATIC MIXED CIRCUIT residual head

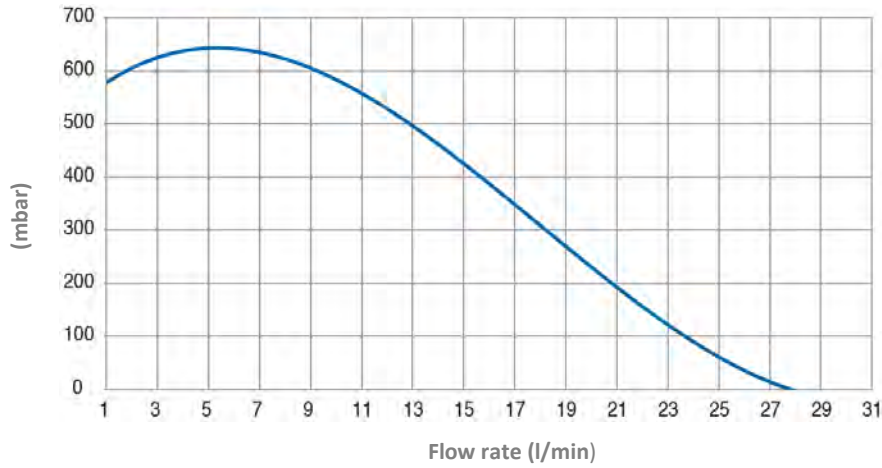
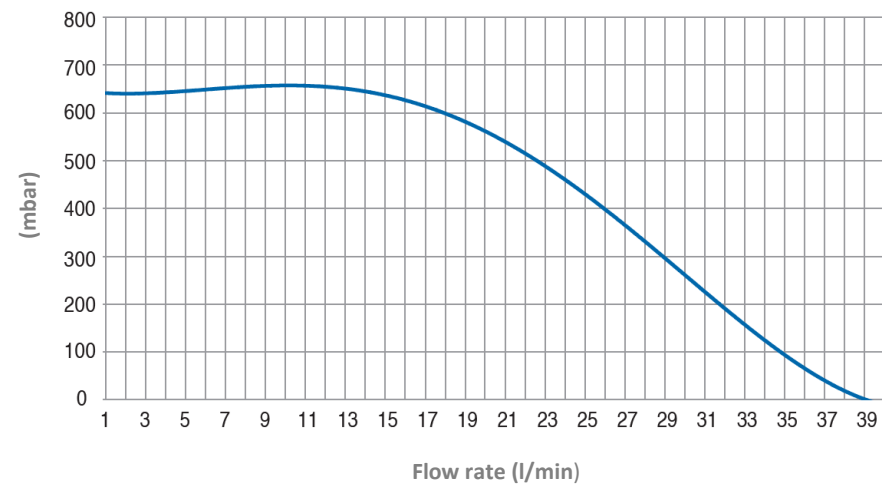


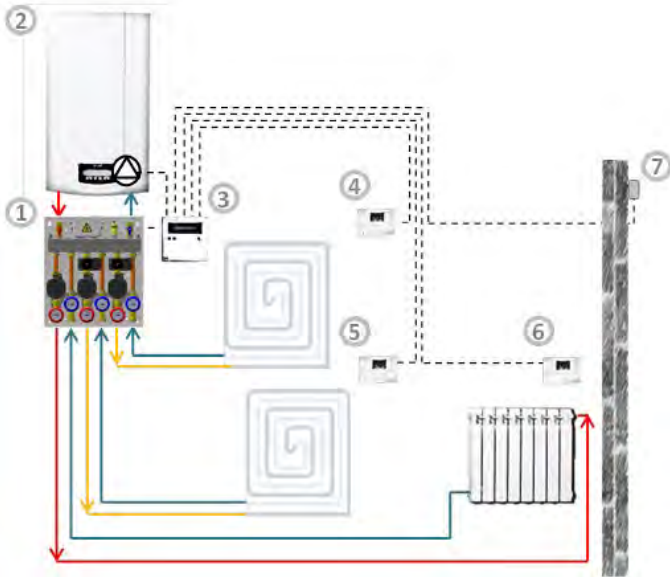
Diagram 3: MOTORIZED MIXED CIRCUIT residual prevalence



EXAMPLES OF INSTALLATIONS

3-zone heating system:

- 1 direct zone managed at high temperature for the supply of radiators;
- 2 mixed zones managed at low temperature for the supply of radiant systems.

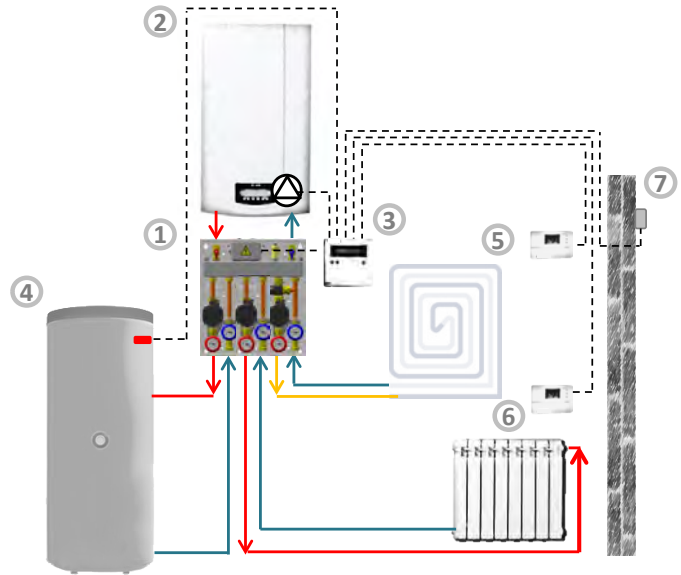


KEY:

- 1 - Module Art. 5584 (with 1 direct circuit + 2 circuits with mixer and servomotor)
- 2 - Gas generator with integrated circulating pump
- 3 - Control unit
- 4 - Low temperature heating circuit
- 5 - Low temperature heating circuit
- 6 - High temperature heating circuit
- 7 - External probe for thermoregulation

3-zone heating system:

- 1 direct zone managed at high temperature for the supply of radiators;
- 1 direct area managed at high temperature for the supply of sanitary storage tank;
- 1 mixed area managed at low temperature for the supply of radiant systems.



KEY:

- 1 - Module Art. 5583 (with 2 direct circuits + 1 circuit with fixed point mixer)
- 2 - Gas generator with integrated circulating pump
- 3 - Control unit
- 4 - Sanitary storage tank integration circuit
- 5 - Low temperature heating circuit
- 6 - High temperature heating circuit
- 7 - External probe for thermoregulation

INSTALLATION / MAINTENANCE / WARNINGS

For installation and maintenance operations, please refer to the instruction manual provided with the product, available on the website www.tiemme.com or downloadable by scanning the QR Code shown on the side.



CAUTION: Before any intervention remove the power supply through the external switch.

To ensure the safety and proper functioning of the module, maintenance must be carried out by a qualified technician in possession of the legal requirements.

TIEMME RACCORDERIE S.p.A. declines all responsibility in the event of failures and/or accidents resulting from non-compliance with these indications and from improper use of the system. The information shown does not exempt the user from scrupulously following current legislation and standards of good practice..

ACCESSORIES AND SPARE PARTS



Art. 5583GPF

Mixing valve 1" with fixed point adjustment screw valve.



Art. 5584MIS

1"3-way mixing valve without servomotor.



Art. 5584SERV

Servomotor complete with 24 Vac 0-10 Vdc valve connection kit.

Servomotor complete with 230 Vac 3-point valve connection kit



Art. 3890PV1

Grundfos UPM3 Hybrid 15/70 230 Vac circulating pump.

Explore the product catalog for codes/further details.

ITEM SPECIFICATIONS

Art. 5582ISOL

Compact multizone distribution box module, for heating/cooling systems.

Supplied complete with: hydraulic separator, automatic air vent, electric support box, generator return tap, generator delivery tap, **direct pumping stations**, **insulation shells** and metal box painted with powders to be hung on the wall or built-in.

Nominal diameter DN20, max. pressure PN10, min - max working temperature range + 5 °C ÷ 95 °C (110 °C peak), compatibility water fluids and glycolated solutions (maximum glycol percentage 30%), system side valves DN20, P non-return valve opening ΔP 2kPa (200 mm a.c.), IPX0D protection degree, 18 mm copper pipes, 3/4" M generator connections – 320 mm centre to centre distance, 3/4" F heating connections – 70 mm centre to centre distance, separator chamber/water volume: DN50 / 1.5 l

DIRECT ZONE: Grundfos UPM3 Hybrid circulating pump 15-70 Erp ready, max flow rate 2,100 l/h, max power ΔT 20 °C 35 kW, residual head at 1,000 l/h: 6.4 m.c.a., Max single electrical absorption 52 W

Art. 5582

Compact multizone distribution box module, for heating systems.

Supplied complete with: hydraulic separator, automatic air vent, electric support box, generator return tap, generator delivery tap, **direct-pumping stations** and metal box painted with powders to hang on the wall or built-in.

Nominal diameter DN20, max. pressure PN10, min - max working temperature range + 5 °C ÷ 95 °C (110 °C peak), compatibility water fluids and glycolated solutions (maximum glycol percentage 30%), system side valves DN20, P non-return valve opening ΔP 2kPa (200 mm a.c.), IPX0D protection degree, 18 mm copper pipes, 3/4" M generator connections – 320 mm centre to centre distance, 3/4" F heating connections – 70 mm centre to centre distance, separator chamber/water volume: DN50 / 1.5 l

DIRECT ZONE: Grundfos UPM3 Hybrid circulating pump 15-70 Erp ready, max flow rate 2,100 l/h, max power ΔT 20 °C: 35 kW, residual head at 1,000 l/h: 6.4 m.c.a., Max single electrical absorption 52 W

Art. 5583

Compact multizone distribution box module, for heating systems.

Supplied complete with: hydraulic separator, automatic air vent, electric support box, generator return tap, generator delivery tap, **direct pumping stations, fixed point mixed pumping stations** and metal box painted with powders to be hung on the wall or built-in.

Nominal diameter DN20, max. pressure PN10, min - max working temperature range + 5 °C ÷ 95 °C (110 °C peak), compatibility of water fluids and glycolated solutions (maximum glycol percentage 30%), system side valves DN20, P non-return valve opening ΔP 2kPa (200 mm a.c.), IPX0D protection degree, 18 mm copper pipes, 3/4" M generator connections – 320 mm centre to centre distance, 3/4" F heating connections – 70 mm centre to centre distance, separator chamber/water volume: DN50 / 1.5 l

DIRECT ZONE: Grundfos UPM3 Hybrid Circulating pump 15-70 Erp ready, max flow rate 2,100 l/h, max power ΔT 20 °C 35 kW, residual head at 1,000 l/h: 6.4 m.c.a., single electrical absorption Max 52 W

MIXED ZONE (FIXED POINT): Grundfos UPM3 Hybrid 15-70 circulating pump Erp ready , mixing valve – 1" M, mixing valve calibration 20 °C ÷ 55 °C - 2.3 Kvs, max flow rate 1,300 l/h, max power ΔT 10 °C 14 kW, residual head at 1,000 l/h 3.8 m.c.a., Max electrical absorption 52 W.

Art. 5584ISOL

Compact multizone distribution box module, for heating/cooling systems.

Supplied complete with: hydraulic separator, automatic air vent, electric support box, generator return tap, generator delivery tap, **direct pumping stations, motorized mixed pumping stations, insulation shells** and metal box painted with powders to be hung on the wall or built-in.

Nominal diameter DN20, max. pressure PN10, min - max working temperature range + 5 °C ÷ 95 °C (110 °C peak), compatibility water fluids and glycolated solutions (maximum glycol percentage 30%), system side valves DN20, P non-return valve opening ΔP 2kPa (200 mm a.c.), IPX0D protection degree, 18 mm copper pipes, 3/4" M generator connections – 320 mm centre to centre distance, 3/4" F heating connections – 70 mm centre to centre distance, separator chamber/water volume: DN50 / 1.5 l

DIRECT ZONE: Grundfos UPM3 Hybrid circulating pump 15-70 Erp ready, max flow rate 2,100 l/h, max power ΔT 20 °C 35 kW, residual head at 1,000 l/h: 6.4 m.c.a., Max single electrical absorption 52 W

MIXED ZONE (MOTORIZED): Grundfos UPM3 Hybrid 15-70 Erp ready circulating pump, 1" M mixing valve, 3pt 230V mixing valve motor, max flow rate 1,900 l/h, max power ΔT 10°C 14 kW, residual head at 1,000 l/h 6.2 m.c.a., Max electrical absorption 52 W.

Art. 5584

Compact multizone distribution box module, for heating systems.

Supplied complete with: hydraulic separator, automatic air vent, electric support box, generator return tap, generator delivery tap, **direct pumping stations, motorized mixed pumping stations** and metal box painted with powders to be hung on the wall or built-in.

Nominal diameter DN20, max. pressure PN10, min - max working temperature field. + 5 °C ÷ 95 °C (110 °C peak), compatibility water fluids and glycolated solutions (maximum glycol percentage 30%), system side valves DN20, P non-return valve opening ΔP 2kPa (200 mm a.c.), IPX0D protection degree, 18 mm copper pipes, 3/4" M generator connections – 320 mm centre to centre distance, 3/4" F heating connections – 70 mm centre to centre distance, separator chamber/water volume: DN50 / 1.5 l

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CERTIFICATIONS

