



Function

The VZ712 zone kit with bypass is used to control the fluid in air conditioning systems.

Coupled with an electrothermal device and controlled by a room temperature thermostat, it is used to automatically intercept the part of the system it is installed in.

Technical data

Max. working pressure:	10 bar
Max. working temperature:	120 °C
Max. differential pressure:	1 bar
Working fluids:	water in compliance with UNI 8065:2019

Materials

Electrically actuated valve

Body:	CW 617 N – DW UNI-EN 12165:2016
Obturator:	CW 614 N – UNI-EN 12164:2016
Gaskets:	Peroxide cured EPDM
Steel parts:	Stainless steel
Cap:	RAL9016 white ABS

Adjustment lockshield valve

Body:	CW 617 N – DW UNI-EN 12165:2016
Obturator:	CW 614 N – UNI-EN 12164:2016
Gaskets:	Peroxide cured EPDM
Plug:	RAL9016 white ABS

Accessories

Brass parts:	CW 617 N – DW UNI-EN 12165:2016; CW 614 N – UNI-EN 12164:2016
Steel parts:	Stainless steel
Copper parts:	Chrome-plated annealed copper
Gaskets:	Peroxide cured EPDM

Thermoelectric head

Head:	White coloured plastic material
Power supply cable:	2x0.75 mm ² PVC
Cable/capillary length:	1 m / 2 m
Room temperature:	0÷60 °C

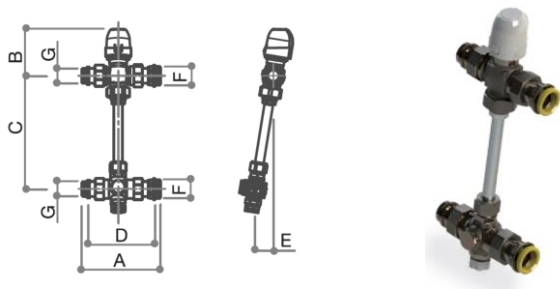
Surface treatment

Nickel-plating

Dimensional Drawings

VZ 712

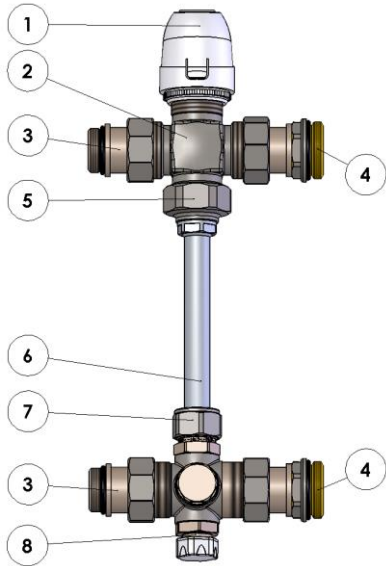
Diverting kit for manifolds series CD with check valve on the bypass. Max. recommended flow rate 1800 l/h.



Code	Size	A	B	C	D	E
68763603	G 1"	138	83	200	118	32

Code	Size	F	G	H	L	M
68763603	G 1"	G1"	G3/4	-	-	-

Construction



- 1. Thermolectric head

- 2. Electrically actuated diverting valve

- 3. Soft-sealing union fitting

- 4. Soft-sealing union fitting

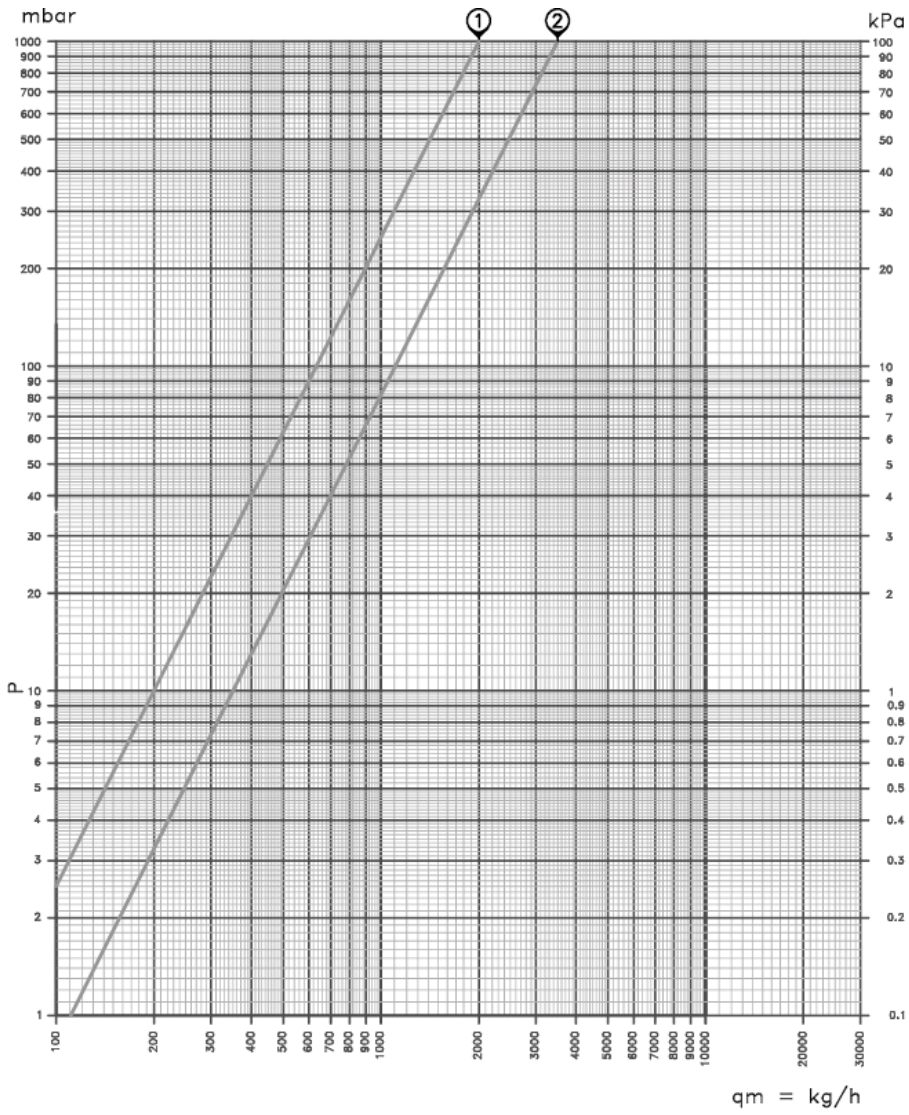
- 5. Union fitting

- 6. Copper pipe for bypass

- 7. Compression fitting

- 8. Balancing lockshield valve

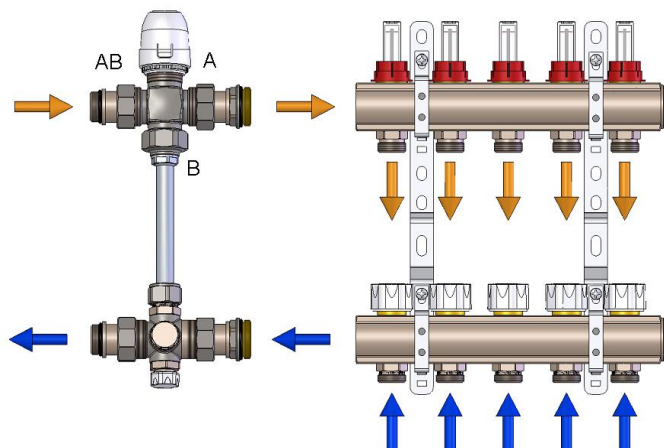
Flow Rate Diagram



Curve	Kv ΔP 1 Bar	
1	2.00	Via AB-B (Bypass)
2	3.00	Via AB-A

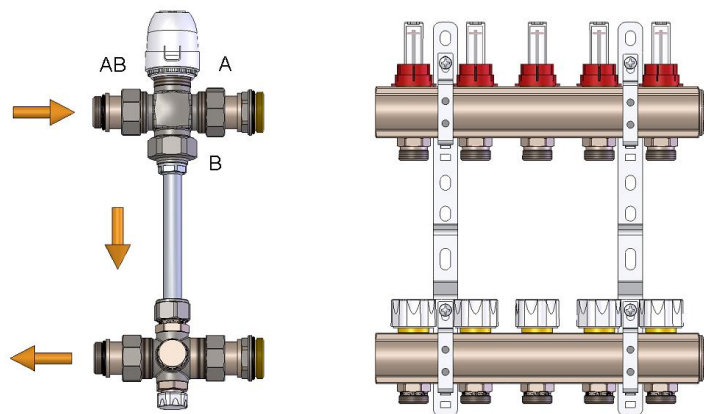
Working Instructions

The VZ 712 system may be installed both on the left and on the right of the group of CD manifolds, provided that AB is always used as the inlet.



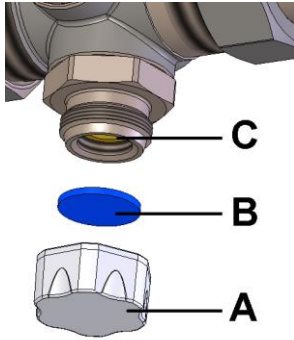
In Fig. 1 the valve is open:

- Water flows in through AB;
- AB-A is open (and AB-B closed) with inlet to CD manifold and radiant panels;
- Return manifold from radiant panels and water returning to the boiler.



In Fig. 1 the valve is closed:

- Water inlet through AB;
- Bypass way AB-B open (and AB-A closed) with direct return to the boiler and bypassing of CD manifolds.



To adjust the return flow rate from the bypass:

- Unscrew the ABS plug "A";
- Without forcing, use a 6 mm Allen key to close the obturator "C";
- Open the obturator for a number of turns as indicated on the flow rate diagram;
- Screw back the ABS plug "A" taking care of inserting the FASIT flat gasket "B" into it.

WARNING: Once the system has been leak tested, please relieve the pressure. A differential pressure over 1 bar between the inlet and the outlet of the valve may cause the sealing O-ring to be expelled.

Thermoelectric Head

TE 3112

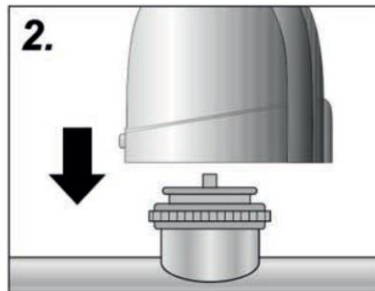
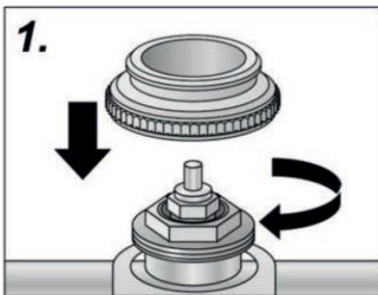
Thermoelectric head 230V with limit switch (normally closed – opens with voltage)
4 wires



How to install the thermoelectric head:

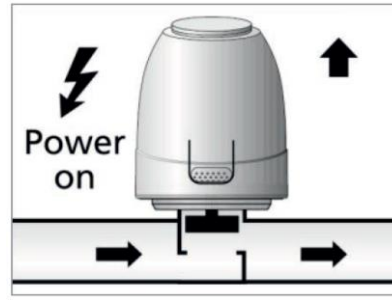
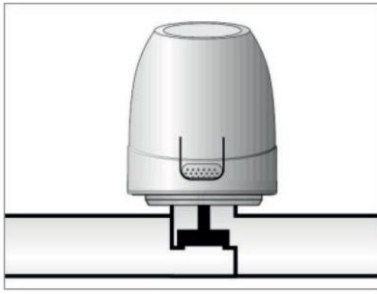
- Remove the protection cap placed on the electrically actuated valve.
- Screw the adapter for thermoelectric heads.
- Fasten the head to the adapter.

Working Instructions



Installation Instructions for Thermoelectric Heads

- Screw the valve adapter manually onto the valve;
- Place the actuator manually, in a vertical position, onto the valve adapter;
- The actuator is easily latched to the valve adapter by pushing vertically by hand; a clicking sound can be heard.



Function Indicator

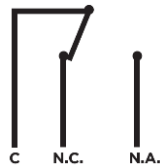
The function indicator (round light blue or red diskette) allows to easily see (or feel, if in the dark) if the valve is open or closed. The indicator pops up when the valve opens.

Start-up of the Electric Heads

All TE thermoelectric heads are supplied in a locked, partially open position (ca. 1/4). In order to unlock and start up, the head must be fed power for at least 6 minutes (for example from the thermostat in heating position). During this time, the head opens completely and breaks the block. After that, the head is ready to function.

Connections

The thermostat and/or chronothermostat output to which the thermoelectric heads must be connected are generally as shown in the following wiring diagrams:

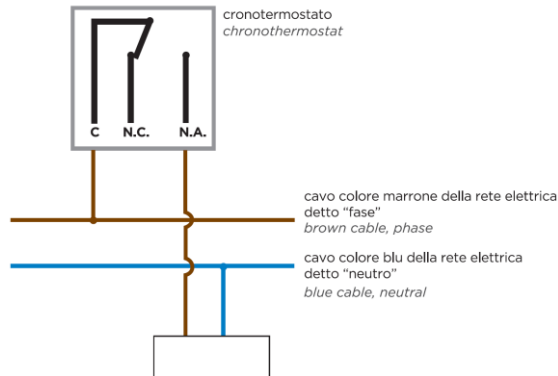


Where:

C: Connection to power supply

N.C.: output normally closed for cable from the thermoelectric head (do not use since our thermoelectric head is normally closed).

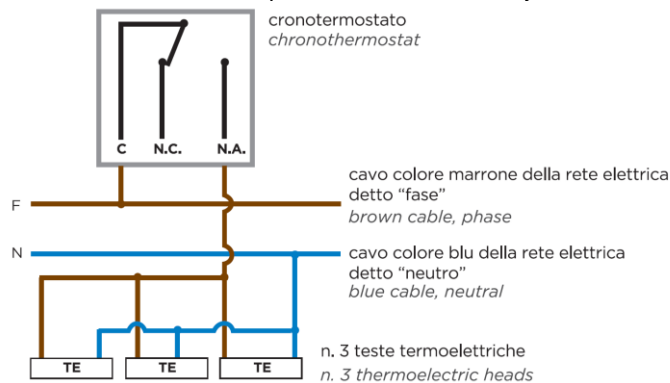
N.A.: output normally open for the connection cable coming from the thermoelectric head (the brown electric cable coming from the thermoelectric head must be connected to this type of output).



Application Example with Connections

- 1 chronothermostat
- 1 thermoelectric head

Each thermostat or chronothermostat can normally fit up to 10 thermoelectric heads in parallel. To know exactly the number of heads which can be connected, divide the thermostat output contact value N.A. by the head starting power.

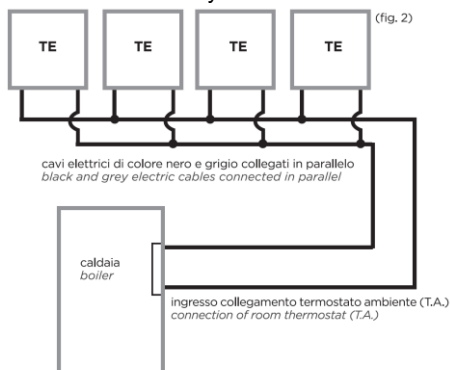


Application Example with Connections

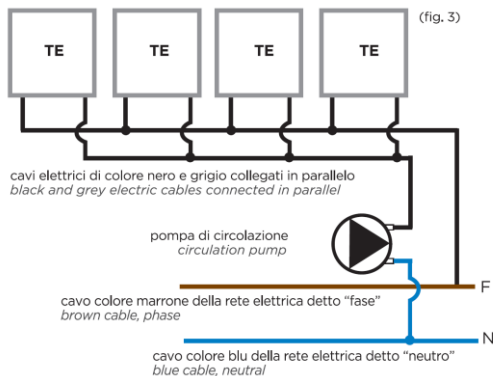
- 1 chronothermostat
- 3 thermoelectric heads with parallel connection

Thermoelectric Heads with Auxiliary or Limit Switch Contact

The limit switch contact is used to start the heating system pump when there is at least one thermoelectric head functioning, hence the pump cannot function when all the thermostatic valves are closed. This device, stopping the pump when the system is not working, reduces wear on the pump and noise caused by the cavitation.



Connection of thermoelectric heads with limit switch contact and boiler with "room temperature thermostat".



Connection of thermoelectric heads with limit switch contact and circulation pump for heating system.



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