



Features & Benefits

- Silent operation
- Heavy duty sector gear and spring for long service
- BSP Connections

Technical Overview

The VZ range of zone valves are designed for On/Off control of fluid flow in a variety of heating and cooling applications, including AHUs and FCUs.

They feature a reliable synchronous motor and a spring return mechanism to provide power failsafe position and fitted with an auxiliary switch as standard.

Product Codes

2-Port valves:

| | |
|----------|--------------------------|
| VZ-2N-15 | ½" BSP zone valve, 2.0Kv |
| VZ-2N-20 | ¾" BSP zone valve, 2.8Kv |
| VZ-2N-25 | 1" BSP zone valve, 4.6Kv |

3-Port valves:

| | |
|---------|--------------------------|
| VZ-3-15 | ½" BSP zone valve, 1.5Kv |
| VZ-3-20 | ¾" BSP zone valve, 2.5Kv |
| VZ-3-25 | 1" BSP zone valve, 4.8Kv |


Actuators:

| | |
|----------|---------------------------------------|
| VZ-SM230 | 230Vac Actuator with auxiliary switch |
| VZ-SM24 | 24Vac Actuator with auxiliary switch |



Special care must be taken to isolate the supply voltage prior to any work being undertaken on the VZ-SM230.

WEEE Directive:

 At the end of the products useful life please dispose as per the local regulations.
Do not dispose of with normal household waste.
Do not burn.

Specification

| | | |
|----------------------|-------------|--------------------------------|
| Operation: | | |
| | 2-port | Normally closed, spring return |
| | 3-Port | Mixing, spring return |
| Actuators | | |
| Supply: | | |
| | 230Vac ±10% | 50/60Hz |
| | 24Vac ±10% | 50/60Hz |
| Max. electrical load | | Aux. switch 3A, 125 to 250Vac |
| Power consumption | | 6W |
| Running time: | | |
| | Open | ≤ 10 |
| | Close | ≤ 5 |
| Working temp. | | 0 to +60°C |
| Working humidity | | Non-condensing |
| Housing: | | |
| | Plate | Casting aluminium alloyed |
| | Cover | Flame retardant ABS |
| Valve | | |
| Valve type | | 2 or 3 Port |
| Fluid temp. | | 0 to +94°C |
| Body rating: | | |
| | 2-port | 1.6MPa |
| | 3-port | 2.5MPa |
| Material: | | |
| | Valve body | Forged brass |
| | Valve rod | Stainless steel AISI302 |
| | Seal | NBR |
| Storage | | -20 to +65°C |
| Protection | | IP20 |
| Country of origin | | China |



24Vac actuator versions
The products referred to in this data sheet meet the requirements of EU Directive 2014/30/EU

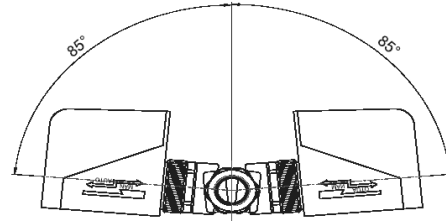
230Vac actuator versions
The products referred to in this data sheet meet the requirements of EU 2014/30/EU and 2014/35/EU

Location & Mounting

Electric valves, like all other mechanical equipment, should be installed with a degree of accessibility to enable quick and economical servicing or replacement. On high-rise buildings, use reducing valves on branch lines on lower floors.

The valve can be mounted vertically or horizontally.

If mounted horizontally, the valve should be mounted within 85° of upright position. If mounted vertically, care should be taken to ensure moisture does not drip onto motor.



Install the valve body in a clean dry location, the body must not be installed with the actuator below the horizontal so as to avoid any potential ingress of water from leaking pipework. The valve should not be mounted upside down.

The body should be installed such that the actuator manual leave and motor cover retaining screw are left accessible.

Piping & Installation

The zone valves must be piped so that the paddle always closes against the direction of flow, except in diverting configurations.

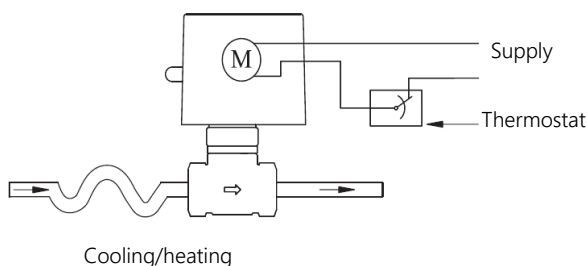
The manual operating lever, provided on all 2-way normally-closed and all 3-way valves, can be used to allow flushing of the hydronic system after installation. Owing to condensation in chilled water applications, install the valve over a drip pan.

Manual Operating Lever

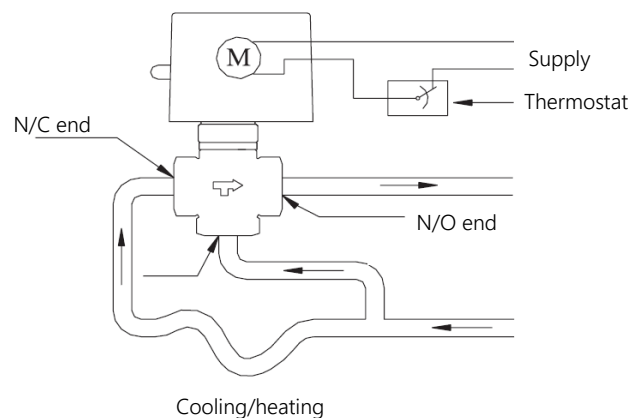
Move the manual operating lever slowly to the open position and hold in the retaining notch until the gear is taken up by the return spring. When valves are placed in the open position with the manual operating lever, the paddle is removed from the seat or port.

The manual operating lever will reset to the automatic position the first time the valve is cycled electrically.

2-Port example application

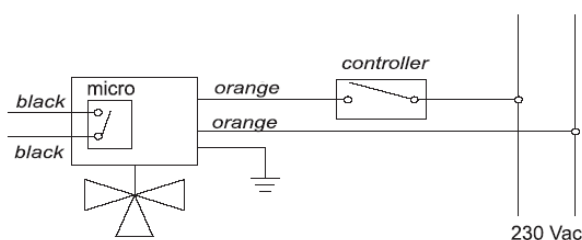


3-Port example application



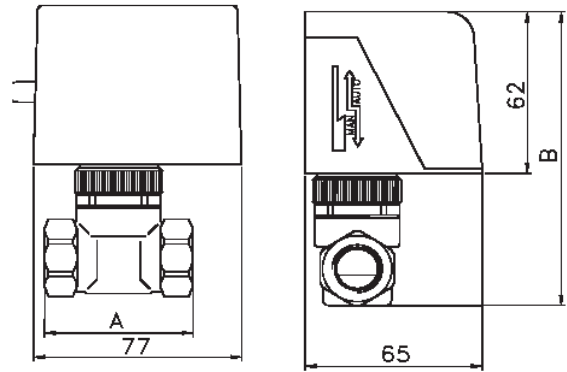
Electrical Connections

1. The VZ-SM should only be installed by a competent, suitably trained technician, experienced in installation with hazardous voltages. (>50Vac & <1000Vac or >75Vdc & 1500Vdc).
2. Ensure that all power is disconnected before carrying out any work on the VZ-SM.
3. The cables from the motor should be wired into a suitable wiring centre or junction box, and connected as below.



Dimensions

| 2-Port valves: | A | B | Max diff pressure |
|----------------|----|-----|-------------------|
| VZ-2N-15 | 66 | 125 | 303kPa |
| VZ-2N-20 | 72 | 128 | 151kPa |
| VZ-2N-25 | 89 | 147 | 62kPa |
| 3-Port valves: | | | |
| VZ-3-15 | 55 | 128 | 250kPa |
| VZ-3-20 | 66 | 137 | 100kPa |
| VZ-3-25 | 90 | 145 | 60kPa |



Whilst every effort has been made to ensure the accuracy of this specification, Sontay cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement this specification may be altered without notice.