



### Features and 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:

<b>VZ-2N-15</b>	½" BSP zone valve, 2.0Kv
<b>VZ-2N-20</b>	¾" BSP zone valve, 2.8Kv
<b>VZ-2N-25</b>	1" BSP zone valve, 4.6Kv

#### 3-Port valves:

<b>VZ-3-15</b>	½" BSP zone valve, 1.5Kv
<b>VZ-3-20</b>	¾" BSP zone valve, 2.5Kv
<b>VZ-3-25</b>	1" BSP zone valve, 4.8Kv

#### Actuators:

<b>VZ-SM230</b>	230Vac Actuator with auxiliary switch
<b>VZ-SM24</b>	24Vac Actuator with auxiliary switch

### Specification

Operation:	2-port	Normally closed, spring return
	3-Port	Mixing, spring return
<b>Actuators</b>		
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
<b>Valve</b>		
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
Conformity (VZ-SM24)		EMC, CE & UKCA Marked
Conformity (VZ-SM230)		LVD, CE & UKCA Marked



**Warning!**  
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.

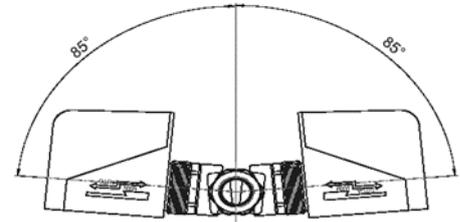


## Location & Mounting

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.

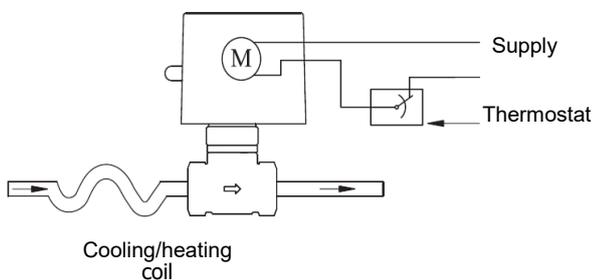
The manual operating lever, provided on all 2-way normally-closed and all 3-way valves, can be used to allow flushing of the hydronic system after installation. Owing to condensation in chilled water applications, install the valve over a drip pan.

## Manual Operating Lever

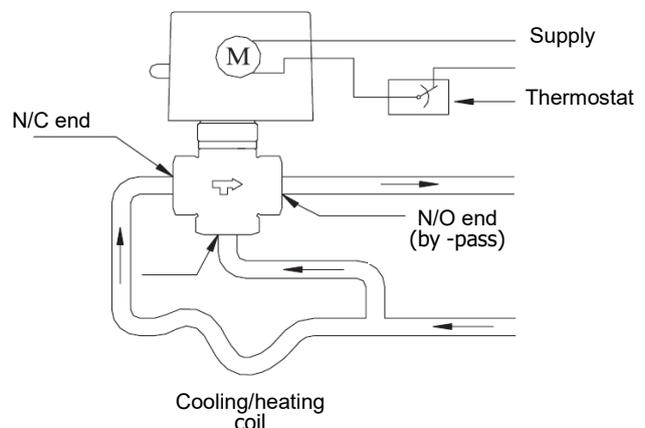
Move the manual operating lever slowly to the open position and hold in the retaining notch until the gear is taken up by the return spring. When valves are placed in the open position with the manual operating lever, the paddle is removed from the seat or port.

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

### 2-Port example application

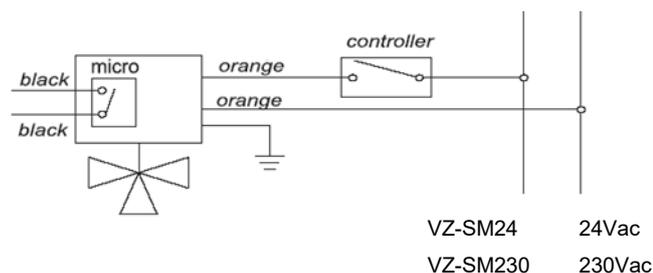


### 3-Port example application



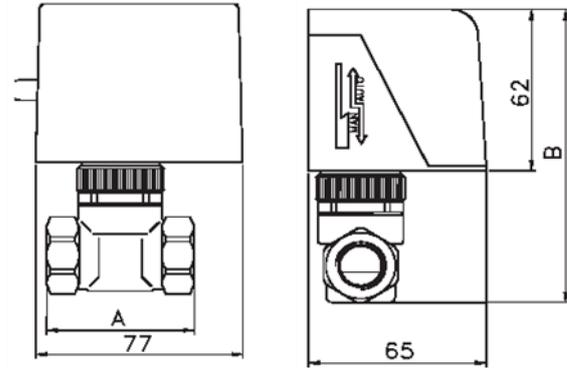
## Electrical Connections

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.

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