## Product technical data

# V3Z230 series
# Electric three-way valve

Diverter three-way valve
DN15-DN25, PN16

## Product Overview

V3Z230 series electric three-way valve, mainly used in fan coils and VAV boxes in refrigeration, heating, ventilation and air conditioning systems, by controlling the valve on and off, to realize the adjustment of room temperature.

- Long life cycle: 100,000 action life.
- High flow rate, low noise.
- Small installation space requirements: easy commissioning and maintenance.
- Strong adaptability to working conditions: temperature range 1°C... 95°C, PN16, suitable for various heating and cooling conditions.

| Model | DN / Rp | Kv(Cv) [m³/h] | Pressure rating | Shutdown pressure |
|---|---|---|---|---|
| V3Z230.15 | DN15 / R1/2" | 2.6(3.0) | 1600 | 200 |
| V3Z230.20 | DN20 / R3/4" | 3.4(4.0) | 1600 | 180 |
| V3Z230.25 | DN25 / R1" | 6.9(8.0) | 1600 | 150 |

## Technical parameters

| | | |
|---|---|---|
| **Performance parameters** | Valve caliber | DN15 / R1/2", DN20 / R3/4", DN25 / R1" |
| | Media range | Cold/hot water/glycol solution with a maximum concentration of 50% |
| | Medium temperature | 1°C...+95°C |
| | Rated pressure | PN16 |
| | Valve tube connection | Female thread |
| **Electrical parameters** | Operating voltage | 230 VAC |
| | Voltage tolerance | +/- 10% |
| | Frequency | 50/60 Hz |
| | Operational power consumption | Max. 6.5 W |
| | Control mode | Switching type, power-on on (B-end on), power-off and off (A-end on) |
| | Running time | Open: < 18s, closed: < 7s |



**GRUNER Automation Asia Pacific Ltd.**
Flat 4, 11/F, Lucida Industrial Building
43 Wang Lung Street, Tsuen Wan, NT, Hong Kong



Phone : +852 3628 3760
info@gruner.com.hk
www.grunerasiapacific.com

| | | |
|---|---|---|
| **Material** | Valve body: | Forged brass |
| | Valve Shaft: | Forged brass |
| | Valve seat | EPDM |
| **Safety performance** | Environmental compatibility | ISO 9001（Quality） |
| | Ambient temperature | 0… 50 °C |
| | Maintenance | Maintenance-free |
| **Size** | Size | See "Dimensions" |

## Functional features/Device installation

**Operating Mode**

On/Off control:

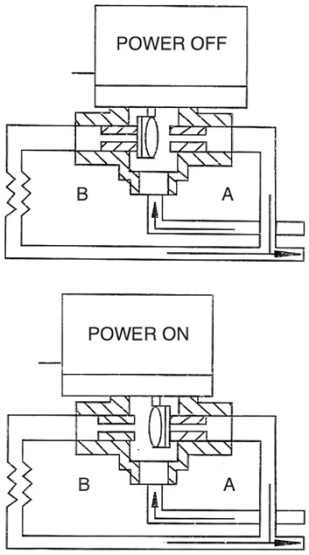
- The actuator consists of a motor with a mechanical fail-safe function, which connects the AC power to the L and N cables, and the electric valve opens; Disconnect the power supply and the motorized valve automatically resets to the closed position.

Manual

- It can be opened manually by means of the manual lever that comes with the actuator: slowly move the manual lever and hold it in the fixed notch, and the valve opens; When the valve is first energized, the manually operated lever returns to the automatic position.
- Please operate this device according to the label on the device.

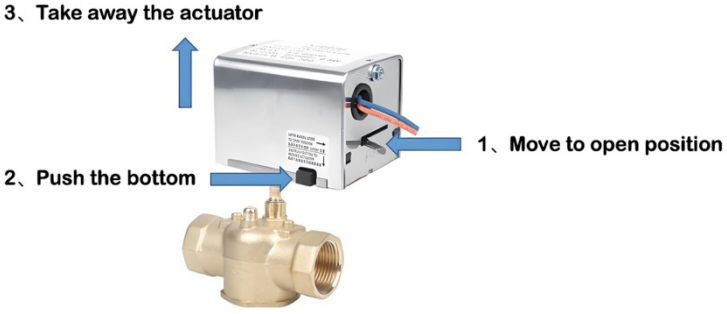
**Equipment installation**

- Before valve installation, ensure that the pipeline is clean, free of impurities and no welding slag.
- The drive should be mounted vertically on the valve body, and the spindle must be kept above the horizontal plane.
- When installing the valve, leave enough space to remove the drive from the valve body for routine maintenance.
- The valve cannot be installed in explosive and ambient temperatures above 50°C and below -5°C, and cannot be used in steam, water jets or drips.
- The three-way valve is a diverter valve, the medium inlet is at the bottom of the valve (this end is not marked), the B side is the normally closed end, connected to the main pipeline, and the A side is the normally open end, connected to the bypass pipe, as shown in the figure on the right.




**Detachable actuator**

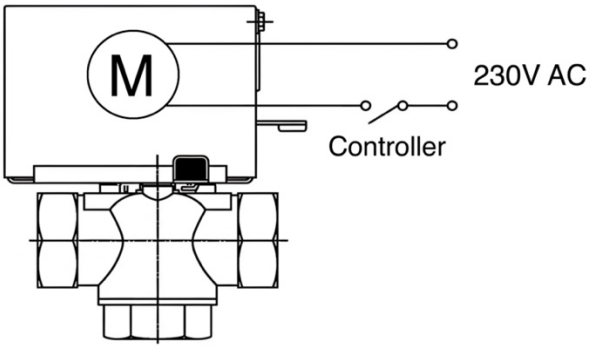
- The valve actuator can be easily removed with a push rod for easy maintenance.



## Electrical wiring/Safety precautions

**Electrical wiring**

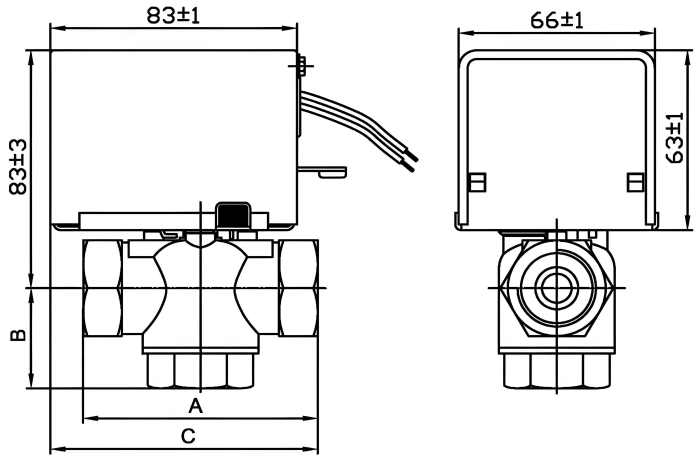
- The electrical connections of the actuator must comply with local regulations.




**Safety matters**

- Note: Power supply voltage!
- The device must not be used outside the designated application area, especially on aircraft.
- The equipment should only be installed by trained personnel.
- Laws, regulations, or locally issued regulations must be followed during installation.
- Do not hit the actuator housing without authorization, this device does not contain parts that can be repaired or replaced by the user.
- The cable must not be removed from the actuator.
- The device is not allowed to be disposed of as ordinary household waste and must be disposed of in accordance with the relevant regulations and requirements in force in the local area.

## Size




| Model | Caliber | | Kv (Hp) | A | B | C | Connection |
|---|---|---|---|---|---|---|---|
| | DN | RP | [m³/h] | [mm] | [mm] | [mm] | |
| **V3Z230.15** | 15 | 1/2” | 2.6(3.0) | 70 | 33 | 86 | Threaded |
| **V3Z230.20** | 20 | 3/4" | 3.4(4.0) | 79 | 34 | 90 | Threaded |
| **V3Z230.25** | 25 | 1" | 6.9(8.0) | 88 | 42 | 95 | Threaded |