



# Installation & Operating Manual



## ZS Series Solenoid Valves

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### 1. Introduction

- Albion Valves (UK) Ltd range of ZS Solenoid Valves are commonly used in automated fluid control system.

### 2. Technical Data

Valve Type	Size Range	Connection Type	Temperature Rating	Pressure Rating (Max)
ZS NC	DN 10 – DN 50	ISO 228/1	Please see individual product datasheet for further details	
ZS NC	DN 65 – DN 100	EN 1092 PN 16	Please see individual product datasheet for further details	
ZS NO	DN 10 – DN 50	ISO 228/1	Please see individual product datasheet for further details	
ZS NC	DN 65 – DN 100	EN 1092 PN 16	Please see individual product datasheet for further details	

- Albion Valves (UK) Ltd range of ZS Solenoid Valves are all classed as direct acting type operation.

### 3. Valve Features

- ZS Solenoid Valves are available in the following stock voltages: -
  - o AC230V AC110V AC24V
  - o DC24V DC12VVoltage allowance:  $\pm 10\%$   
Other voltages are available upon request.
- Coil Rating – IP65
- Coil Duty Cycle – 100%
- ZS Solenoid Valves are available in either Stainless Steel or Brass bodies.
- ZS Solenoid Valves are available in various sealing materials. Please contact Albion Valves (UK) Ltd for further details.

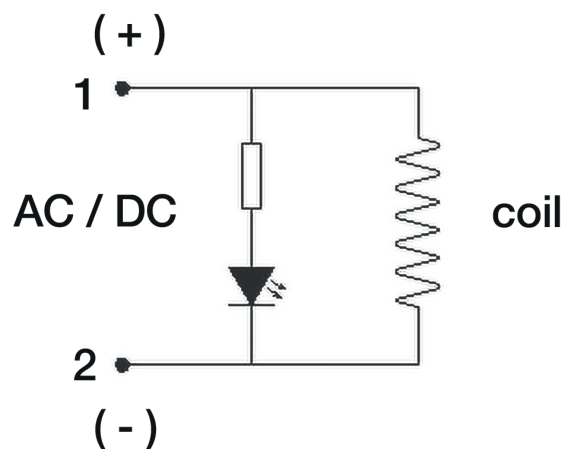
### Direct Acting – Normally Closed

- When the coil is energized, the armature will open against the spring force, the valve will then open, and the media will flow. When the coil is de-energized, the armature will close under the force from the spring, the valve will then close, and the flow of media will stop. Direct acting valves will operate with zero-line pressure and even in very low vacuums. Please consult our technical department for advice on specific pressure / vacuum applications

- For ZS Normally Open the operating principle is opposite to Normally Closed.

#### 4. Valve Installation

- Before installation, please check the voltage, pressure, media, and temperature parameters of the product and confirm these parameters are suitable for the required working conditions.
- Valves should preferably be installed in horizontal pipework with the coil in the upright position and never below the centre line of the pipework due to risk of water ingress from pipework condensation etc.
- Solenoid valves can be installed in vertical pipework. However, this increases the risk of contaminants having an adverse effect on valve operation.
- Solenoid valves must be installed with the direction of flow matching the flow direction mark showed on the valve body, if installed in the wrong direction the valve will not operate.
- Before installing the valve, please ensure that the media is clean and free from particles, solids or dirt. In new pipework systems the pipework should be fully flushed and cleaned to remote any foreign bodies from the system before installation of the valve. It is recommended that a strainer is fitted upstream of the valve to protect from ingress of dirt and foreign bodies.
- Please ensure that all connecting pipework is properly installed and that no stress is put on the valve from unsupported or out of line pipework.
- Like any other valve or pipework component, measures must be taken to protect the media from freezing in cold environments as this will restrict the movement of the plunger assembly inside the armature preventing the valve from operating properly.
- Please ensure all electrical connections are done properly by a qualified installer. The standard coil is not suitable for explosive environments; please consult our technical department for explosion proof coils.
- Temperature rise is commonplace in electromagnetic coils. Coil insulation is Class F and is rated to 155°C.
- Do not, under any circumstances power the coil when it is not mounted onto the valve stem. Doing so will likely cause coil burn out.
- Please ensure the coil is wired as per the wiring diagram below.





**5. Approvals Classification**

- The valve is classified in accordance with PED 2014/68/EU as Sound Engineering Practice (SEP).

**6. Troubleshooting**

- ZS Solenoid Valves will provide many years of trouble-free operation if general good practice takes place. Should you encounter any issues with satisfactory operation, please contact Albion Valves (UK) Ltd for further assistance.
- If any maintenance is to be undertaken on the valve it is the responsibility of the installer to ensure the system is adequately drained and depressurized.
- A full risk assessment should be undertaken prior to any works taking place.

**7. Warranty**

- For further details of Albion Valves (UK) Ltd warranty period, please refer to Albion Valves (UK) Ltd 'Conditions of Sale' available on our website.



## **About Albion Valves (UK) Ltd**

Albion has been supplying valves and fittings to the building services and industrial markets for the past 40 years.

Albion was created with the sole purpose of providing quality products at an affordable price. With a growing reputation for quality and reliability, Albion is now an established brand providing the industry with a trusted alternative to premium-priced products.

Our commitment to setting the highest standards in all areas of our business means, if you're looking for quality, service, delivery and choice — you'll find it's all at Albion.

### **Quality**

Whatever you need, you can rest assured that if it comes from Albion it has been designed and manufactured to deliver optimum performance and is accredited with the necessary approvals. Our in-house quality department are always on hand too!

### **Service**

We pride ourselves on our customer service – we have even won awards for it! Our cradle to grave approach means you will never be on your own!

### **Delivery**

We know that time is money, and when a priority project depends on a part you can trust Albion to deliver – next day for all orders placed before 4:00PM.

### **Choice**

We may have started out with a single brass ball valve, but our range has grown substantially since and we now consider ourselves to be a 'One Stop Shop' with our comprehensive range. It is becoming more and more apparent to the industry, that it really is all at Albion.