



# Installation & Operating Manual



## ART 671 Pressure Reducing Valve

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### 1. Introduction

- Albion Valves (UK) Ltd ART 671 PRV can be used in pipework systems to reduce inlet pressure to a safe level before fluid reaches any plumbing fixtures within a building.
- The ART 671 PRV has been classified in accordance with PED 2014/68/EU.
- The ART 671 PRV is WRAS approved to a maximum operating temperature of 80°C.

### 2. Technical Data

ART 671 PRV Technical Specification	
Material	Nickel Plated DZR Brass
Maximum inlet pressure	16 bar
Outlet pressure range	0.5 bar – 6 bar
Operating temperature range	0°C – 80°C

Pressure reducing valves should always be sized according to system flow velocities and flow rates not line size.

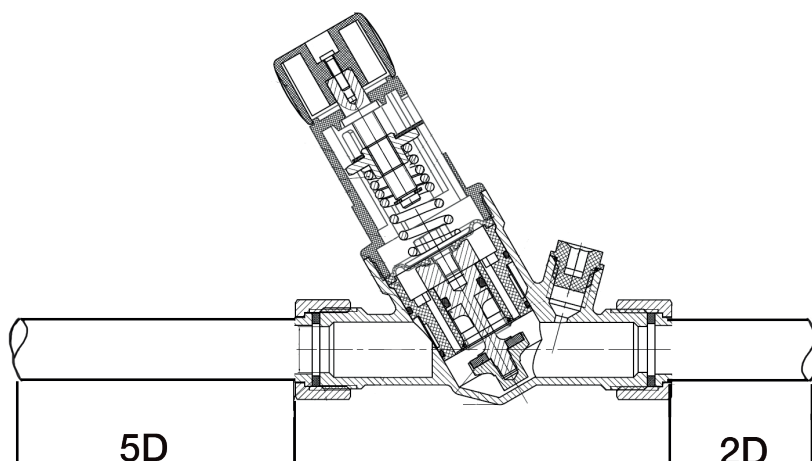
Flow Velocity m/s	1 m/s	2 m/s	1 m/s	2 m/s	1 m/s	2 m/s
DN	Flow Rate (litres / sec)		Flow Rate (litres / minutes)		Flow Rate (litres / hour)	
15	0.18	0.35	10.8	21	0.65	1.26
20	0.31	0.63	18.6	37.8	1.12	2.27
25	0.49	0.98	29.4	58.8	1.76	3.53
32	0.8	1.61	48	96.6	2.88	5.80
40	1.26	2.51	75.6	150.6	4.54	9.04
50	1.96	3.93	117.6	235.8	7.06	14.15

### 3. Valve Features

- ART 671 PRV conforms to BS EN 1567
- ART 671 is supplied with pressure gauge
- ART 671 is manufactured from corrosion resistant brass

### 4. Valve Installation

- The valve should be sited to ensure ease of access.
- It is the responsibility of the installer to ensure the valve is suitable for service conditions e.g., temperature, pressure, and service media.
- Where fitted, remove flange protectors / dust caps and all other packaging material.
- Care should be taken to ensure the surface finish of the valve is protected during installation.
- The valves may be installed in horizontal or vertical pipework. Do not install the valve upside down.
- Suitable sealing material should be used during installation. Sealing material is not required on the union joints.
- The valve is uni-directional and this is clearly highlighted by flow directional arrows on the valve.
- The valve should be installed with no undue stress in the pipework system. Suitable bracketing / supports should always be used.
- It is recommended that the valve has suitable isolation valves both upstream and downstream to allow maintenance to take place.
- The PRV must be installed with a minimum of 5 pipe diameters upstream and 2 pipe diameters downstream as per the image below. This will reduce noise and ensure laminar flow.





## **Flushing**

Control valves are sized to give good control over the system water and have therefore been designed with small, convoluted flow paths. These water ways may not allow adequate water velocities needed for flushing the system during the pre-commissioning stages of water treatment, even when fully open. In line with BSRIA recommendations, suitable consideration needs to be made as to how the removal of system debris can be achieved during the system flushing process.

## **5. Setting Instructions**

- The outlet pressure of the ART 671 PRV can be set and adjusted as follows: -
- Leave one tap in the property open.
- Adjust the PRV to the required outlet pressure by turning the handwheel in the same direction as the +/- arrows).
- Read the pressure on the gauge (ensure the tap is still open).
- Adjust as necessary by following steps 1-5 inclusive.
- A tap / faucet must always be left open whilst adjustments are being made.
- The pressure gauge may be read incorrectly with the stopcock open and all taps closed.

## **6. Valve Maintenance**

- The ART 671 PRV may require occasional cleaning of the internal filter. To do this by the following steps: -
  - Isolate the valve.
  - Unscrew the plastic head.
  - Remove the filter.
  - Rinse with warm water – do not use detergents.
  - Reassemble.

## **7. Pressure Reduction**

- A pressure reduction ratio of three to one should never be exceeded. For example, inlet pressure 9 bar, minimum outlet pressure 3 bar.

## **8. Approvals Classification**

- ART 671 PRV are WRAS approved.
- The valve is classified in accordance with PED 2014/68/EU as Sound Engineering Practice (SEP).

## **9. Troubleshooting**

- 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.

## **10. 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.