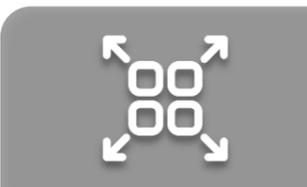
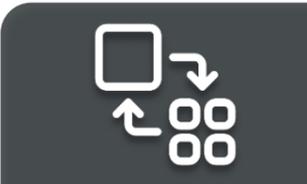
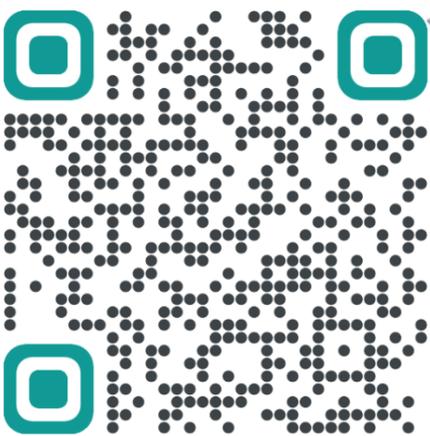




PNEUMATIC COAXIAL VALVE USER MANUAL



INTRODUCTION

Thank you for purchasing Convalve products. Each product has been thoroughly inspected after its production to offer you the highest quality and reliable performance. Please read the product manual carefully prior to installing and commissioning the product.

- Installation, commissioning, and maintenance of the product may only be performed by trained specialist personnel who have been authorized by the plant operator accordingly.
- The manual should be provided to the end-user.
- The manual can be altered or revised without any prior notice. Any changes in product's specification, design, and/or any components may not be printed immediately but until the following revision of the manual.
- The manual should not be duplicated or reproduced for any purpose without prior approval from Convalve.
- In case of any other problems that are not stated in this manual, please make immediate contact with Convalve for assistance.

TRANSPORTATION AND STORAGE

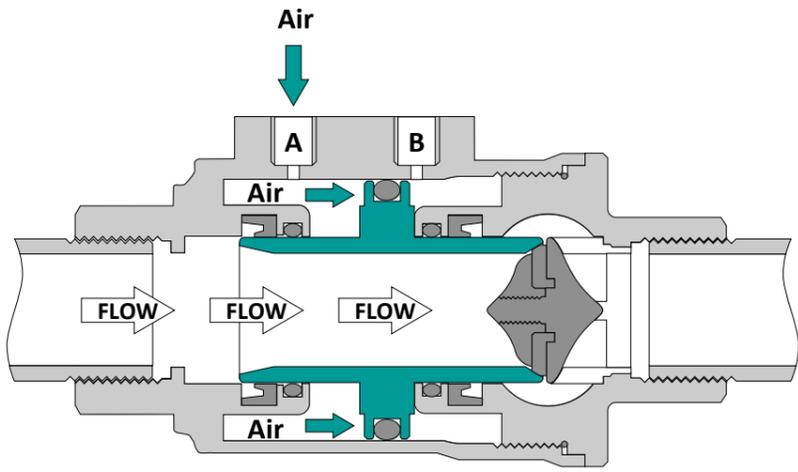
- Convalve recommends storing Pneumatic Coaxial Valve in a clean and dry environment. For optimal storage conditions, it is recommended to store the Pneumatic Coaxial Valve , safeguarding them against adverse weather conditions and other potentially harmful elements. At Convalve, we prioritize the longevity and performance of our products, and these storage guidelines are meant to preserve the Pneumatic Coaxial Valve ' functionality and reliability throughout their lifecycle.
- Handling the Pneumatic Coaxial Valve with care is of utmost importance to prevent any scratches, damage, or harm to the environment during transportation. Adequate protection should be provided to ensure the pneumatic coaxial valve remain intact throughout the transportation process.

PRODUCT DESCRIPTION

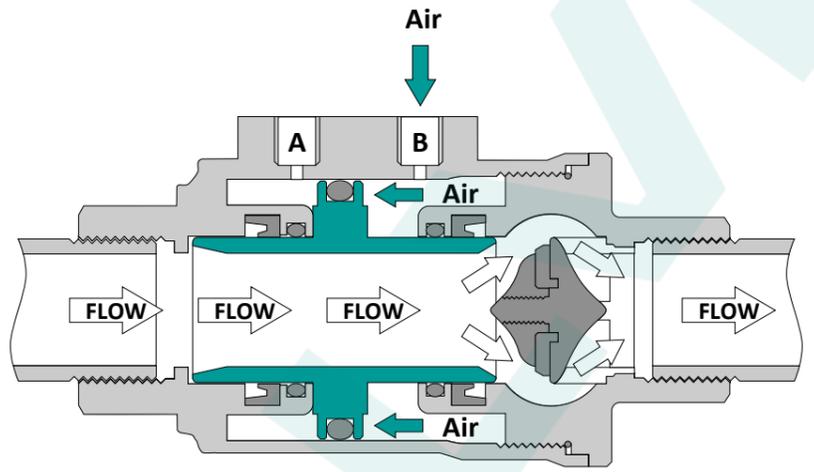
A pneumatic coaxial valve is a type of valve that uses pneumatic (air) pressure to control the flow of fluids or gases. It operates using a coaxial design, where the control element is placed along the same axis as the flow path. This design allows for precise and efficient flow control.

The valve consists of a piston or diaphragm that moves within a coaxial cylinder. When air pressure is applied, the piston or diaphragm moves, opening or closing the flow path and controlling the flow of the fluid or gas. The valve can be either normally open (N.O.) or normally closed (N.C.) depending on its design and application.

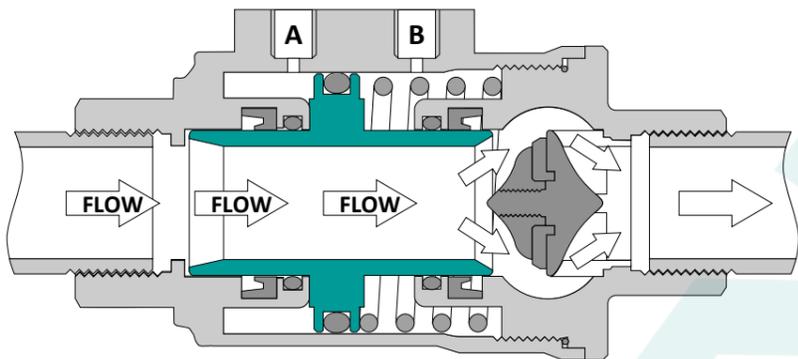
Pneumatic coaxial valves are commonly used in various industrial processes, including manufacturing, automation, and control systems. They are valued for their reliability, fast response time, and ease of control using pneumatic systems. Proper maintenance and adherence to safety guidelines are essential for ensuring the optimal performance and safety of the valve.



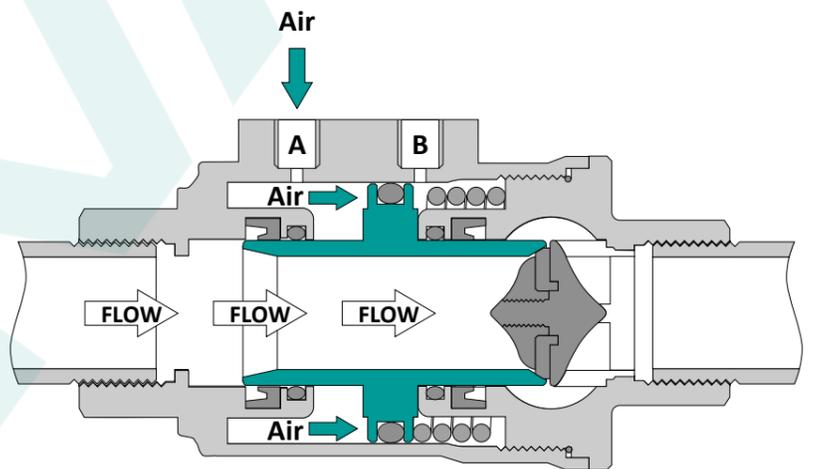
BY SUPPLYING AIR TO PORT A, THE PISTON WILL MOVE TO CLOSE THE VALVE.



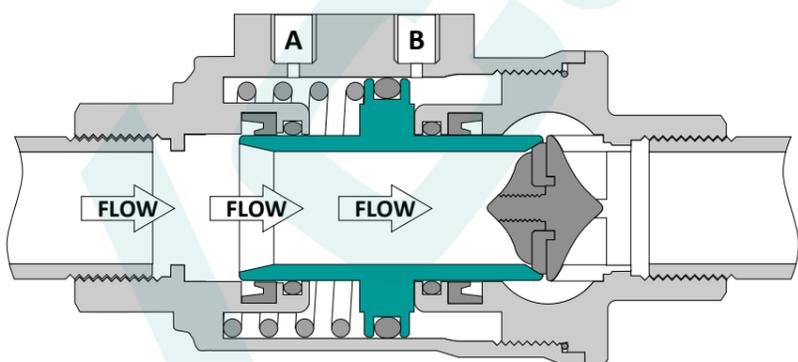
BY SUPPLYING AIR TO PORT B WILL CAUSE THE PISTON TO MOVE AND OPEN THE VALVE.



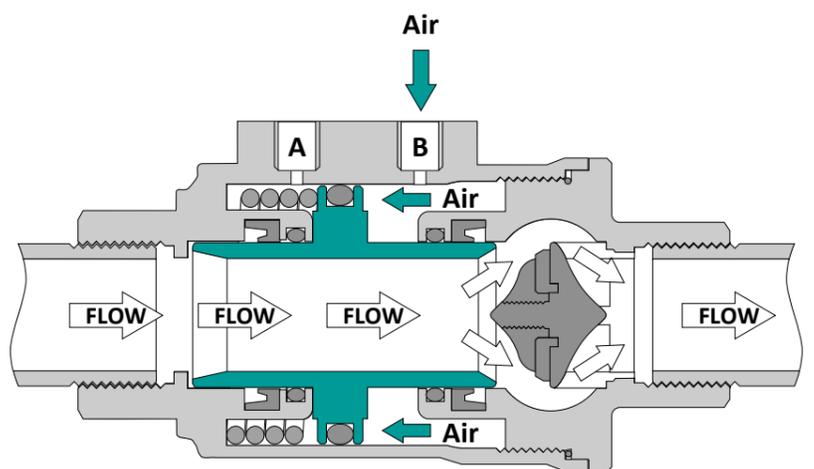
WHEN NEITHER PORT IS SUPPLIED WITH AIR, THE SPRING MAINTAINS THE PISTON IN THE OPEN POSITION.



BY SUPPLYING AIR TO PORT A CAUSES THE PISTON TO CLOSE THE VALVE.



IN THE ABSENCE OF AIR SUPPLIED TO EITHER PORT, THE SPRING MAINTAINS THE PISTON IN THE CLOSED POSITION.



BY SUPPLYING AIR TO PORT B, THE PISTON IS ACTUATED TO OPEN THE VALVE.

INSTALLATION

Before proceeding with the installation of the Pneumatic Coaxial valve, it is crucial to perform the following steps to ensure optimal performance:

1. **Tube Inspection** : Thoroughly inspect all tubes to ensure they are free from any dirt, debris, or welding residues that could potentially damage the seat seals. Cleaning the tubes is essential for maintaining the valve's integrity.
2. **Tube Expansion Consideration** : Take precautions to prevent tube expansions that could adversely affect the valve's operation. Properly accommodate tube expansions to ensure the valve's performance remains unaffected.
3. **Proper Sealing** : Use standard sealing materials, such as PTFE or hemp, on threads to establish reliable seals and prevent any leakage issues.
4. **Wrench Usage** : When handling the valve during installation or maintenance, strictly use a wrench on the designated hexagon flats. Avoid using a wrench on any other part of the valve, as this may cause damage and result in improper valve functionality.

Proper pipeline alignment is essential for efficient and reliable fluid or gas flow. Install pipelines straight, support them adequately, and avoid stress concentrators. Regular inspection and maintenance are crucial for optimal performance and longevity.

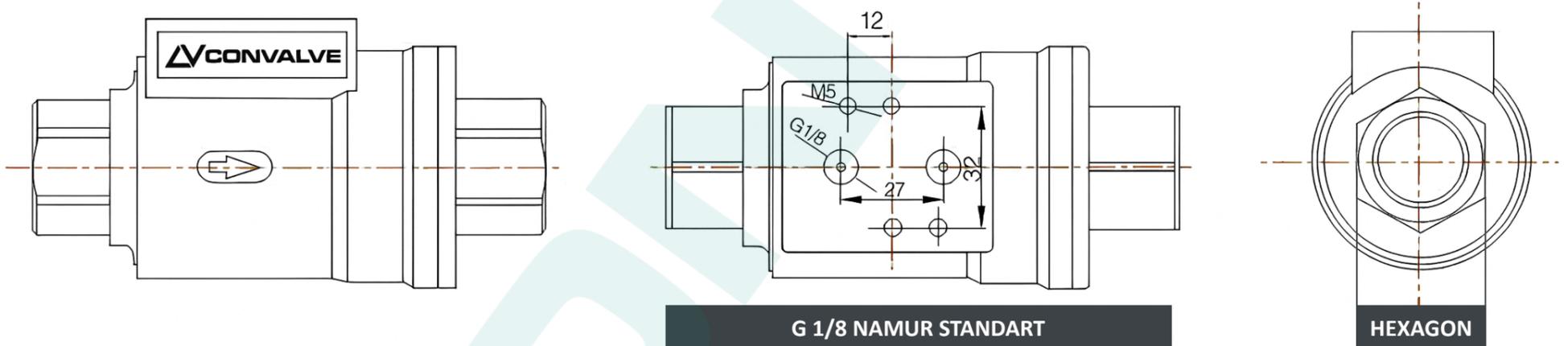
By adhering to these guidelines, you can ensure the smooth and efficient installation of the Pneumatic Coaxial valve while maintaining its optimal performance and longevity in the system.

ARRANGEMENTS FOR ACCESSORIES

The Pneumatic Coaxial valve is specifically designed for seamless integration into a pneumatic control network. It features 1/8" connections compatible with NAMUR solenoid valves, enabling a straightforward and efficient pneumatic connection.

For added convenience, magnetic limit switches can be effortlessly mounted on the valve. The supplied mounting kit facilitates a quick and easy installation process, ensuring accurate and reliable valve positioning.

With its user-friendly design and compatibility features, the Pneumatic Coaxial valve offers a hassle-free installation experience and seamless integration within the pneumatic control system.



CONTROL MEDIA

- Dry, filtered compressed air, not necessarily lubricated.
- Pressure: 3 bar min. - 8 bar max. (Double Acting)
- Pressure: 4.2 bar min. - 8 bar max. (Spring Return)
- Temperature: from 0°C (-20°C with dry air) to +80°C

OPERATING MEDIA

- Pressure: 10 bar max.
- Vacuum tightness: 740 mm Hg (Mercury).
- Temperature: -20°C to +80°C (NBR seals)
- Temperature: -20°C to +150°C (FKM seals)
- Temperature: -20°C to +150°C (EPDM seals)
- **NBR** : Suitable for air, gas, oil... at low temperatures.
- **FKM** : Suitable for most fluids. Unsuitable for steam.
- **EPDM** : Perfectly suitable for steam and hot water. Unsuitable for mineral products (oils, greases, fuels, etc.).

The Pneumatic Coaxial valve offers excellent versatility, making it a reliable choice for a wide range of applications and environments. Its robust design and compatibility with various media ensure efficient and dependable operation.

MAINTENANCE

If you use the Pneumatic Coaxial valve (Pneumatic Coaxial Valve) properly and follow the provided instructions, it will require minimal maintenance. However, if any part needs replacement, it can be easily done by any trained staff without specialized equipment.

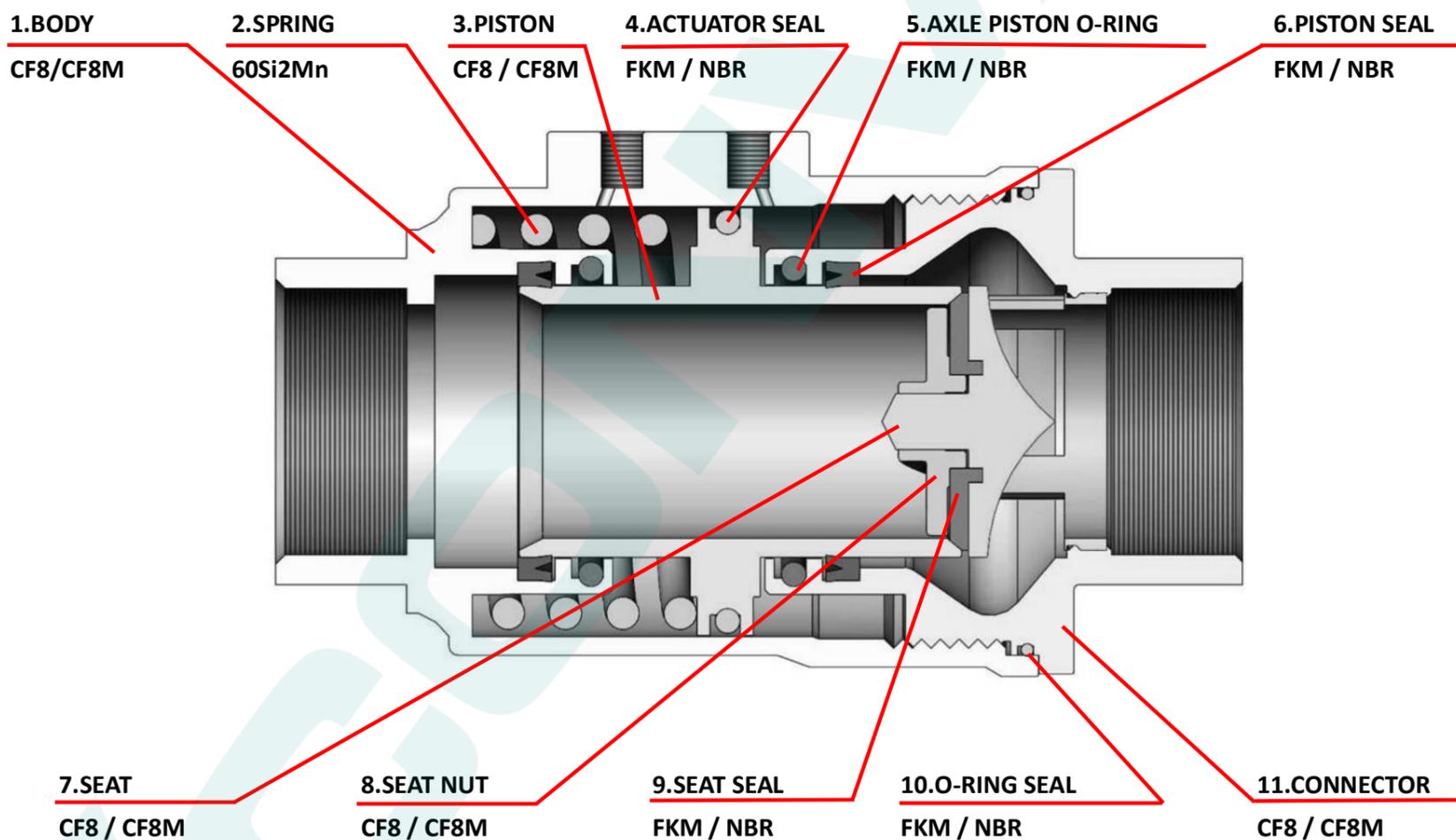
WARNING!

Before proceeding with any maintenance on the Pneumatic Coaxial valve, it is crucial to take the following precautions:

1. Verify the nature of the fluid flowing into the valve to identify if it is corrosive, toxic, inflammable, polluting, or otherwise dangerous.
2. Disconnect the air and electric supplies both upstream and downstream of the valve before disassembling it. Ensure that all nearby taps connected to the valve are closed during the maintenance procedures.
3. Prior to handling the Pneumatic Coaxial valve for maintenance, observe the following safety measures:
 - Wear protective glasses or a safety visor to protect the eyes.
 - Wear gloves, an overall, and a safety helmet for added protection.
 - Have access to running water in case of any emergencies.
 - Keep a suitable fire extinguisher nearby, especially if the fluid is inflammable.

Adhering to these technical safety guidelines will help ensure a safe and efficient maintenance process for the Pneumatic Coaxial valve.

REPLACEMENT PARTS



DISASSEMBLING THE VALVE :

To begin disassembly, carefully unscrew the sleeve (part 11). For Normally Open or Normally Closed executions, ensure to pay attention to the pressure of the springs (part 2).

After removing the sleeve, take out the piston (part 3) along with all the seals. Thoroughly clean all components, and then proceed to replace any necessary parts. If you need to replace the seat seal (part 7), unscrew the nut (part 8) in a counter-clockwise direction. Replace the seal and reassemble the parts, applying glue "Nm 045" on the thread to ensure proper sealing.