

Fig.570/577 Solenoid Valve



Fig.570 Namur type



Fig.577 Inline type

Overview

Coreline solenoid valves Fig.570 and Fig.577 are modular, high-performance directional control valves for pneumatic actuator systems.

- **Fig.570:** NAMUR interface for direct mounting on actuators
- **Fig.577:** Inline threaded version for panel or cabinet installation
- Both types are suitable for **3/2 NC** or **5/2** configurations

Standard supply includes a monostable solenoid coil. Standard voltages: 24VDC, 24VAC, 230VAC (optional: 110VAC).

Safety Instructions

Only trained and qualified personnel may install and service the valve.

Use with filtered ($\leq 5 \mu\text{m}$), lubricated or dry compressed air, or inert gas per **ISO 8573-1 Class 3**.

Modification of the product is not allowed without prior consultation with **Coreline Ltd.**

Always read technical specifications before use.

Pneumatic Connection

General recommendations

Connect pipes for the required functions in accordance with this documentation and the ports markings on the product. Make sure that no foreign matter enters the system. Correctly support and align pipes to prevent mechanical strain on the valve.

When tightening, do not use the valve as a lever. Locate wrenches as close as possible to connection point. To avoid damage to the equipment, **DO NOT OVERTIGHTEN** pipe connections.

Connection of pilot exhaust

The Fig.570/577 features a $\varnothing 3$ mm exhaust port at the end of the solenoid valve. The coil is secured with the supplied $M8 \times 0.75$ nut.

Air consumption: 1100 L/min at 5 bar

- **Fig.570** is supplied with 3/2 and 5/2 function Namur interface plate.
- **Fig.577** is designed for inline installation with BSPP threaded ports.

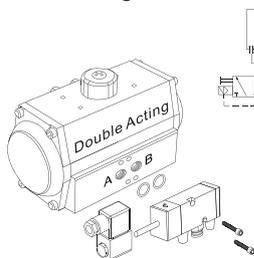


Fig.570 - 5/2

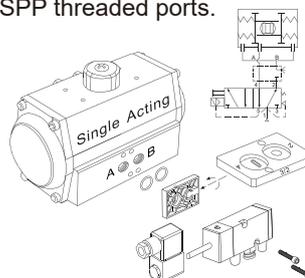


Fig.570 - 3/2 NC

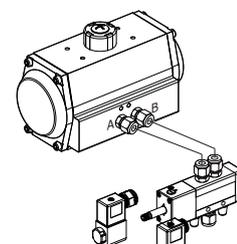


Fig.577

Electrical Connection

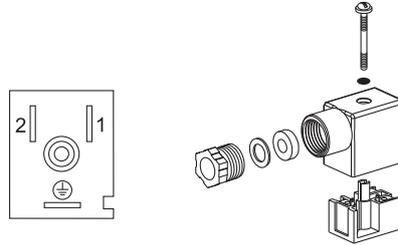
Electrical connection must be made by qualified personnel and according to applicable local standards and regulations.

Before any electrical connection, turn off the electrical current to power off the components.

Depending on the voltage, electrical components must be grounded according to local standards and regulations.

Most valves are designed for continuous duty. To prevent the risk of personal injury, do not touch the solenoid operator which can become hot under normal operating condition.

- Electrical connection is made with detachable plug connector for cable dia. 6-8mm (see fig.), rotatable 180° (3 pins: 1, 2 electric pins+PE)



Maintenance

Prior to any maintenance work, switch off the power supply, depressurize and vent the valve to prevent the risk of personal injury or damage to the equipment.

Preventive maintenance

Operate the valve at least once a month to ensure proper function.

Avoid obstruction of the exhaust port when the valve is not connected. If not in use, protect it with a cap.

Cleaning

Maintenance frequency depends on the operating conditions.

Valves should be cleaned at regular intervals. Cleaning is necessary when there is a noticeable slowing of the cycle, air leakage, or abnormal noise during operation.

All components should be inspected for signs of excessive wear. Cleaning must be carried out using a suitable solvent.

Troubleshooting

| Problem | Solution |
|---|--|
| Valve fails to operate (No switching noise) | <ul style="list-style-type: none"> - Verify power supply matches the nameplate or coil rating. - Inspect the coil for shorts or damage. - Ensure moving parts aren't blocked by debris. - Check for incorrect mounting of the NAMUR plate. |
| Valve fails to return (for mono-stable) | <ul style="list-style-type: none"> - Inspect the return spring for damage. - Ensure the pilot exhaust port is clear. |
| Valve switches but without effect | <ul style="list-style-type: none"> - Verify pilot pressure (min. 2 bar). - Check if the pilot plunger spring is broken. |
| External leakage | <ul style="list-style-type: none"> - Verify the connectors and the valve's mounting on the interface plate. - Check the pilot section for proper tightening. |

Storage Information

To ensure proper performance upon commissioning, please observe the following storage guidelines:

- **Environment:** Store indoors in a dry, clean, ventilated place at -20°C to +50°C, with humidity below 75%.
- **Protection:** Keep the valve in its original packaging until installation.
- **Duration:** If stored for more than 12 months, inspect seals and moving parts before use.
- **Exposure:** Avoid contact with corrosive gases or environments that may cause condensation or mechanical stress.

Long-term storage under unsuitable conditions may degrade internal seals, reduce spring tension, and affect overall valve performance. Reconditioning or functional testing is recommended before installation after extended storage.