

## Description

The Bray Series 62 solenoid pilot spool valves have an aluminum body and mounting interface pattern conforming to NAMUR. The Bray Series 62 is IP65, NEMA 4, 4x.

The Bray Series 62 solenoid can be used either with Single Acting/Spring Return or Double Acting/Direct Acting actuators. Double Acting/Direct Acting actuators use the 5/2 configuration (Fig. 1-2) and requires no adapter kit. Single Acting/Spring Return actuators use the 3/2 configuration (Fig. 3-4) and require the use of a conversion kit to convert 4-Way to 3 -Way, part number 62-1250-22500-536 (sold separately). This kit includes an airflow plate, O-ring seal and longer screws.

## Installation

Valves are designed to be operated within the technical characteristics specified on the nameplate. Bray reserves the right to change or modify product design without prior notice.

These valves are designed to operate with filtered air or inert gas (e.g. Nitrogen). Do not exceed the maximum allowable pressure of 130 psi (9 bar), and minimum operating pressure of 22 psi (1.5 bar). Operating ambient temperature range is a +5°F to +140° F (-15° C to +60° C). Installation and maintenance of the solenoid valve must be carried out by qualified personnel only.

Before mounting the solenoid spool valve assembly on the actuator it must be configured for the required function.

**For 5/2 Double Acting/Direct Acting 4-Way:** no conversion kit is required. The solenoid spool valve assembly mounts directly to the actuator with 2 each (#10-32 -1 1/8" or m5 x 0.8, 28mm depending on actuator drilling) screws and O-rings as shown in figures 1 and 2.

**For 3/2 Single Acting/Spring Return 3-Way:** the 4-way to 3-way conversion kit (flow plate, O-ring and 2 each (#10-32 -1 3/8" or m5 x 0.8, 28mm depending on actuator drilling) longer screws, part # 62-1250-22500-536 (sold separately) may be used. Install the conversion kit as shown between the solenoid pilot valve and actuator as shown in figures 1 and 2. It however is not uncommon to use a 4-way solenoid to operate a Single Acting actuator, in a "spring to close air assist" configuration. In this configuration no adapter kit is required.

## Pneumatic Connections

Connect supply pipes in accordance with the markings on the nameplate

- **5/2 Double Acting/Spring Return configuration:** Supply pressure to Port 1 (1/4"NPT). Exhaust both Ports 3 and 5 (1/4"NPT).

- **3/2 Single Acting/Spring Return configuration:** Supply pressure to Port 1 (1/4"NPT), Exhaust to Port 3 (1/4" NPT). It is recommended to protect Port 5 (when not used) with a vented pipe plug or screen, do not plug completely.

## Manual override

The solenoid is equipped with a Manual Override:

To engage Override; depress the red manual override button and rotate 90° clockwise, the override will lock in place, causing the spool valve to activate. The button can also be pressed to activate the spool momentarily. (Please refer to Figs 1, 2, and 3 on page 2 for the location of the manual override button).

To disengage Override; rotate the red manual override button counterclockwise 90°, the manual override button will pop out and the spool will deactivate and be returned to the normal position. (Please refer to Figs 1, 2, and 3 on page 2 for the location of the manual override button).



## CAUTION!

In order to prevent injury or damage and to ensure correct remote operation of the pilot solenoid valve, the Manual Override must be returned to the disengaged position by rotating it 90° counterclockwise, to normal (disengaged) before returning to remote operation of the pilot solenoid.

**General Recommendations concerning pneumatic connections:** connect pipes with the required functions in accordance with this documentation and port markings on the valve. Make sure no foreign matter enters the system. Use of a coalescing filter regulator is recommended.

Correctly support the supply piping to avoid subjecting the solenoid spool valve assembly to mechanical stress, when tightening, avoid using the valve as a lever. Use proper tools and locate wrenches as close as possible to the connection point. To avoid damage of the equipment ***DO NOT OVER TIGHTEN*** pipe connections.

## Electrical Connections

IP65/NEMA 4,4X 3 wire flying lead (2+ ground/earth)

- Red power, Yellow/green: ground/earth

### DIN: 3 prong DIN Connector

**General recommendations for electrical connections:** electrical connections are only to be made by trained personnel and in accordance with the applicable regulations and standards.

**! CAUTION!**

Before work, switch off the electrical power supply to de-energize all components

Depending on the voltage, electrical components must be provided with a ground/earth connection and satisfy local regulations and standards.

The Bray Series 62 solenoid valve is designed for continuous duty service. To avoid any possibility of damage or injury do not touch the solenoid which can become hot under normal operating conditions. If the solenoid valve is easily accessible, the installer must provide protection against accidental contact.

**Maintenance.**

**! CAUTION!**

Prior to any maintenance work or returning to operation, shut off supply to the pilot solenoid valve, depressurize and vent the valve in order to prevent injury or damage.

**Cleaning:** maintenance of the valve depends on the operating conditions. They must be cleaned at regular intervals. During servicing, the components must be checked for excessive wear. If operation cycle is slow, ensure proper supply pressure and that there is no unusual noise or leak detected.

**Sound emission:** the sound emission depends on the application, supply medium and nature of the equipment used. Exact determination of the sound level can only be carried out by the user having the valve installed in their system.

**Preventive maintenance:** Operate the pilot solenoid valve monthly to check function. Should any difficulties or questions arise during installation and maintenance, please contact a Bray representative.

**Troubleshooting:**

Incorrect supply pressure: check the supply pressure,

- Minimum air supply – 22 psi (1.5 bar)
- Maximum air supply - 130 psi (9 bar)

**Tools Required**

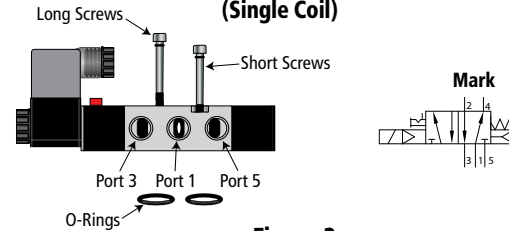
Phillips (cross drive) screwdriver, to assemble and disassemble solenoid coil to pilot valve

Small flat blade screwdriver, to engage disengage manual red close button.

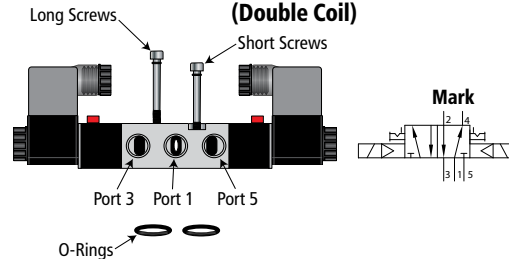
5/32" or 4mm hex screwdriver (Allen wrench), to fasten the solenoid pilot valve to pneumatic actuator.

**Configuration Diagrams**

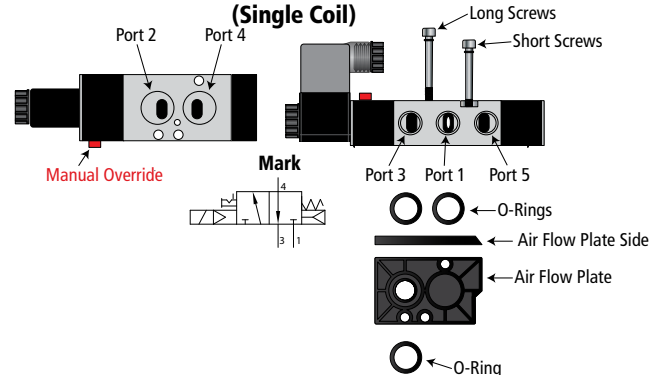
**Figure 1  
5/2 for Double Acting Solenoid Valve  
(Single Coil)**



**Figure 2  
5/2 for Double Acting Solenoid Valve  
(Double Coil)**



**Figure 3  
3/2 for Single Acting/Spring Return Valve  
(Single Coil)**



**Figure 4  
3/2 for Single Acting/Spring Return Valve  
(Double Coil)**

