Wolo 812-EV

Wolo Electric Solenoid Air Valve Model 812-EV Instruction Manual

Model: 812-EV

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the Wolo Electric Solenoid Air Valve, Model 812-EV. This universal valve is designed for controlling air flow in various automotive pneumatic systems, such as air horns. Please read this manual thoroughly before installation and operation to ensure proper function and safety.

2. Safety Information

Always observe the following safety precautions:

- Ensure the vehicle's electrical system is disconnected before performing any electrical wiring.
- Verify that the power supply matches the valve's voltage requirements (12V DC).
- Use appropriate tools and wear safety glasses during installation.
- Ensure all air connections are secure and leak-free to prevent pressure loss.
- Do not exceed the recommended operating pressure for the valve or connected components.

3. Package Contents

The Wolo Electric Solenoid Air Valve package includes the following items:

- Wolo Electric Solenoid Air Valve Unit (Model 812-EV)
- 1/4 inch O.D. Brass Fittings
- Mounting Hardware
- Instruction Guide (this document)

4. Setup and Installation

Follow these steps for proper installation of the solenoid air valve:

4.1 Mounting the Valve

1. Select a suitable, secure location for mounting the valve. The location should be protected from excessive heat, moisture, and physical damage.
2. Use the provided mounting bracket and hardware to firmly attach the valve to a stable surface. Ensure the valve is oriented correctly for air flow, if indicated on the unit.

4.2 Air Connections

1. Connect the air supply line to the inlet port of the valve. The valve features 1/4 inch NPT threaded ports.
2. Connect the air output line (e.g., to an air horn) to the outlet port of the valve.
3. Use the provided 1/4 inch O.D. brass fittings. Apply thread sealant (e.g., PTFE tape or liquid sealant) to all threaded connections to ensure an airtight seal and prevent leaks.
4. Tighten all connections securely, but do not overtighten, which can damage the threads or fittings.

4.3 Electrical Connections

1. The solenoid valve operates on 12V DC power. Connect one of the valve's electrical wires to a switched 12V DC positive (+) power source.
2. Connect the other electrical wire to a reliable ground (-) point on the vehicle chassis.
3. It is recommended to install an inline fuse (not included) on the positive power line to protect the circuit.
4. Ensure all electrical connections are secure and insulated to prevent short circuits.

Figure 1: Wolo Electric Solenoid Air Valve. This image shows the chrome-plated metal body of the valve, a cylindrical solenoid, and a mounting bracket. Two blue and white electrical wires extend from the base. A brass fitting is visible on one side for air connection.

5. Operating Instructions

The Wolo Electric Solenoid Air Valve functions as an on/off switch for air flow:

- When 12V DC power is applied to the electrical wires, the solenoid energizes, opening the valve and allowing air to flow from the inlet to the outlet.
- When the 12V DC power is removed, the solenoid de-energizes, closing the valve and stopping the air flow.

Ensure your air supply system (e.g., air compressor and tank) is properly pressurized before operating the valve.

6. Maintenance

The Wolo Electric Solenoid Air Valve is designed for minimal maintenance. However, periodic checks can ensure optimal performance and longevity:

- **Visual Inspection:** Regularly inspect the valve for any signs of physical damage, corrosion, or loose connections.
- **Air Connections:** Periodically check all air line connections for leaks. If a leak is detected, tighten the fitting or reapply thread sealant as necessary.
- **Electrical Connections:** Ensure electrical wires are securely connected and insulation is intact.
- **Cleanliness:** Keep the valve free from dirt, dust, and debris. Use a soft, dry cloth for cleaning.

7. Troubleshooting

If you encounter issues with your Wolo Electric Solenoid Air Valve, refer to the following troubleshooting guide:

Problem	Possible Cause	Solution
Valve does not open or close	No electrical power; incorrect wiring; faulty switch; low air pressure; valve obstruction.	Check 12V DC power supply and ground connections. Verify switch functionality. Ensure air supply system is pressurized. Inspect valve for debris.
Air leaks from connections	Loose fittings; insufficient thread sealant; damaged threads or fittings.	Tighten fittings. Disassemble, reapply thread sealant, and reassemble connections. Replace damaged fittings if necessary.
Reduced performance in cold temperatures	Internal components affected by low temperatures.	This can be a characteristic of some solenoid valves. If possible, relocate the valve to a warmer area or insulate it. Allow the vehicle to warm up before operation.

8. Specifications

Feature	Detail
Model Number	812-EV
Brand	Wolo
Material	Metal
Finish	Chrome

Feature	Detail
Voltage	12V DC
Valve Type	Solenoid Valve
Inlet Connection Size	0.25 Inches (1/4 inch)
Inlet Connection Type	Threaded (NPT)
Number of Ports	1
Product Dimensions (L x W x H)	10.8 in. x 3.125 in. x 2.125 in.
Package Dimensions (L x W x H)	7.3 in. x 4 in. x 5.75 in.
Item Weight	1 Pound
Included Fittings	1/4 inch O.D. Brass Fittings
Included Hardware	Mounting Hardware

9. Warranty Information

Specific warranty details for the Wolo Electric Solenoid Air Valve Model 812-EV are not provided in this document. For information regarding warranty coverage, terms, and conditions, please refer to the documentation included with your purchase or contact Wolo customer support directly.

10. Customer Support

If you require further assistance, have questions about installation, or need to troubleshoot an issue not covered in this manual, please contact Wolo customer support. Contact information can typically be found on the manufacturer's official website or on the product packaging.