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› Bürkert 134433 Solenoid Valve User Manual

Bürkert 134433

Bürkert 134433 Solenoid Valve User Manual

Model: 134433 | Brand: Bürkert

1. INTRODUCTION AND OVERVIEW

This manual provides essential information for the safe and efficient installation, operation, and maintenance of your Bürkert 134433 2/2-way servo-controlled solenoid valve. This valve is designed for reliable control of various media, featuring a media-separated pilot valve, suitable for 230V / 50-60Hz electrical systems, and equipped with a G 1/2 connection.

2. SAFETY INFORMATION

Always adhere to local safety regulations and guidelines when installing, operating, or maintaining the valve. Failure to do so may result in injury or damage to equipment.

- **Electrical Safety:** Always disconnect power to the valve and associated circuits before performing any installation, maintenance, or troubleshooting. Ensure proper grounding.
- **Pressure Safety:** Ensure the system is completely depressurized and drained before working on the valve. Sudden release of pressure can cause severe injury.
- **Media Compatibility:** Verify that the valve's materials (brass housing, NBR seals) are compatible with the media being controlled to prevent corrosion or degradation.
- **Personal Protective Equipment (PPE):** Wear appropriate PPE, such as safety glasses, gloves, and protective clothing, when handling the valve or working with the system.
- **Qualified Personnel:** Installation and maintenance should only be performed by qualified and trained personnel.

3. PRODUCT DESCRIPTION AND FEATURES

The Bürkert 134433 is a high-quality 2/2-way servo-controlled solenoid valve designed for robust performance in various industrial applications. Its construction offers enhanced reliability and reduced sensitivity to impurities in the media.

Key Features:

- **Model:** Bürkert 5282 134433
- **Housing Material:** Durable brass construction.
- **Seal Material:** NBR (Nitrile Butadiene Rubber).
- **Impurity Tolerance:** Less sensitive to impurities compared to direct-acting solenoid valves, ensuring longer service

life.

- **Adjustable Operation:** Features continuously adjustable opening and closing times for precise control.
- **Manual Override:** Some Bürkert solenoid valves, including certain pivoted armature types, may feature a manual override for emergency or testing purposes.



An image showing the Bürkert 134433 2/2-way servo-controlled solenoid valve. The valve features a brass body with a black electrical coil housing on top. It has a G 1/2 threaded connection at the bottom. Labels on the coil housing indicate 'Bürkert', 'Made in Germany', model number '00134430', and flow direction symbols for NC (Normally Closed) and NO (Normally Open) with 'IN-OUT'.

4. SETUP AND INSTALLATION

Proper installation is crucial for the valve's performance and longevity. Follow these steps carefully:

1. **System Preparation:** Ensure the system is clean and free of debris before installing the valve. Flush pipes if necessary.
2. **Mounting:** Mount the valve in a position that allows for easy access for maintenance and inspection. The valve can typically be installed in any position, but for optimal performance and longevity, the coil should preferably be in an upright position.
3. **Flow Direction:** Observe the flow direction arrow marked on the valve body. Install the valve so that the media flows in the indicated direction (IN-OUT).
4. **Pipe Connection:** Connect the valve to the piping system using the G 1/2 threaded connections. Use appropriate thread sealant (e.g., PTFE tape) to ensure a leak-free connection. Do not overtighten.
5. **Electrical Connection:** Connect the valve to a 230V / 50-60Hz power supply. Ensure the electrical connections are secure and comply with all local electrical codes. Verify correct voltage and frequency before applying power.
6. **Testing:** After installation, slowly pressurize the system and check for any leaks. Test the valve's operation by applying and removing power to ensure it opens and closes correctly.

5. OPERATION

The Bürkert 134433 is a 2/2-way normally closed (NC) solenoid valve. When power is applied to the coil, the pilot valve opens, allowing system pressure to act on the main diaphragm, which then opens the main valve. When power is removed, the pilot valve closes, and the main valve returns to its closed position.

- **Power On:** Applying the specified 230V / 50-60Hz power to the coil will open the valve.
- **Power Off:** Removing power from the coil will close the valve.
- **Adjustable Times:** If equipped with adjustable opening/closing time features, refer to the specific instructions provided with the valve for setting these parameters.

6. MAINTENANCE

Regular maintenance ensures optimal performance and extends the lifespan of your Bürkert valve. Always depressurize the system and disconnect power before performing any maintenance.

- **Routine Inspection:** Periodically inspect the valve for any signs of external damage, corrosion, or leaks. Check electrical connections for tightness and integrity.
- **Cleaning:** Keep the exterior of the valve clean. Do not use harsh chemicals or abrasive materials that could damage the housing or labels.
- **Seal Replacement:** The NBR seals are subject to wear over time, especially with continuous operation or aggressive media. If leaks occur or valve operation becomes erratic, inspect the seals and replace them with genuine Bürkert spare parts.
- **Coil Inspection:** Check the coil for any signs of overheating or damage. A damaged coil should be replaced immediately.

7. TROUBLESHOOTING

This section provides solutions to common issues you might encounter with your solenoid valve.

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Valve does not open when energized.	No power supply; Incorrect voltage/frequency; Damaged coil; Clogged pilot orifice; Excessive back pressure.	Check electrical connections and power source; Verify voltage and frequency match specifications; Replace coil; Clean pilot orifice; Ensure pressure differential is within limits.
Valve does not close when de-energized.	Debris lodged in valve seat; Damaged seal; Pilot orifice blocked; Residual pressure.	Disassemble and clean valve internals; Replace seals; Clear any blockages; Ensure system is fully depressurized.
Leakage from valve body or connections.	Loose pipe connections; Damaged seals; Cracked housing.	Tighten connections (do not overtighten); Replace worn or damaged seals; If housing is cracked, valve must be replaced.
Valve operates sluggishly.	Low pressure differential; Contamination; Worn internal components.	Verify system pressure; Clean valve internals; Inspect and replace worn components.

8. SPECIFICATIONS

Detailed technical specifications for the Bürkert 134433 solenoid valve:

Attribute	Value
Manufacturer	Bürkert
Model Number	134433 (Bürkert 5282)
Valve Type	2/2-way Servo-controlled Solenoid Valve, Normally Closed (NC)
Housing Material	Brass
Seal Material	NBR
Electrical Connection	230V / 50-60Hz
Pipe Connection	G 1/2
Number of Ports	2
Product Dimensions (L x W x H)	8 x 8 x 38 cm
Weight	0.95 grams
Pressure Range	0.2 - 10 bar

9. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the documentation provided with your purchase or contact your

authorized Bürkert distributor. For technical assistance, spare parts, or further inquiries, please contact Bürkert customer service or visit their official website.

Always use genuine Bürkert spare parts to ensure compatibility and maintain product performance and warranty validity.

