

Aexit JF-Z05

Aexit JF-Z05 DC Solenoid Electromagnet Instruction Manual

Model: JF-Z05

1. INTRODUCTION

This manual provides essential information for the safe and effective use of the Aexit JF-Z05 DC Solenoid Electromagnet. Please read these instructions carefully before installation and operation, and retain this manual for future reference.

2. PRODUCT OVERVIEW

The Aexit JF-Z05 is a pull-push type DC solenoid electromagnet designed for linear motion applications. It features an open frame construction and a plunger with spring return. This solenoid is commonly used in various applications such as vending machines, transport equipment, office facilities, and household appliances requiring controlled mechanical actuation.



Figure 2.1: Front view of the Aexit JF-Z05 DC Solenoid Electromagnet, highlighting the blue coil and the plunger mechanism with its return spring.



Figure 2.2: Side view of the solenoid, displaying the product label with model number JF-Z05 and electrical specifications.



Figure 2.3: Another side view of the solenoid, illustrating the plunger's position and the blue electrical wires connected to the coil.

3. SAFETY INFORMATION

Please observe the following safety precautions to prevent injury or damage to the product:

- **Children:** Do not allow children to have casual contact with the device.
- **Handling:** Handle the solenoid with care. Do not shake it forcefully.
- **Temperature:** Avoid use in extreme temperatures, including near open flames or in super high-temperature environments.
- **Electrical Safety:** Ensure proper electrical connections and voltage (DC 24V) to prevent overheating or malfunction.

Figure 3.1: Example of safety warning labels, emphasizing precautions for handling and environmental conditions.



Figure 3.2: Product packaging showing the integrated safety and compliance information.

4. SETUP

- 1. **Mounting:** Securely mount the solenoid in the desired application using appropriate fasteners through the mounting holes on the frame. Ensure the solenoid is stable and will not vibrate excessively during operation.
- 2. **Electrical Connection:** Connect the two blue wires to a DC 24V power source. The solenoid is not polarity-sensitive for basic operation, but consistent wiring practices are recommended. Ensure connections are secure and insulated to prevent short circuits.
- 3. **Plunger Alignment:** Verify that the plunger's path of motion is clear and unobstructed. Ensure the object to be actuated is properly aligned with the plunger for smooth operation.

5. OPERATING INSTRUCTIONS

The JF-Z05 is a pull-push type solenoid. Its operation involves the plunger moving linearly when energized.

- 1. **Energizing:** When a DC 24V power supply is connected to the solenoid's wires, the coil becomes energized.
- 2. **Actuation:** Upon energization, the electromagnetic force pulls the plunger inwards (pull action) or pushes it outwards (push action, depending on mounting and application). The solenoid is designed to perform work by moving an attached object.
- 3. **De-energizing:** When the power supply is disconnected, the electromagnetic force ceases, and the internal spring returns the plunger to its original position.

Note: The solenoid is rated for a force of 45N over a stroke of 10mm. Ensure your application's requirements are within these specifications.

6. MAINTENANCE

The Aexit JF-Z05 DC Solenoid Electromagnet is designed for low maintenance. However, periodic checks can extend its lifespan and ensure reliable operation:

- **Cleaning:** Keep the solenoid free from dust, dirt, and debris, especially around the plunger mechanism, to ensure smooth movement. Use a dry, soft cloth for cleaning.
- **Connections:** Periodically inspect electrical connections for tightness and signs of corrosion. Re-secure or clean as necessary.
- **Plunger Movement:** Ensure the plunger moves freely without binding. If resistance is noted, check for obstructions or misalignment.
- **Environmental Conditions:** Confirm that the operating environment remains within suitable temperature and humidity ranges, avoiding extreme conditions as outlined in the safety section.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Solenoid does not actuate when energized.	No power supply or incorrect voltage. Loose or faulty electrical connections. Internal coil damage. Plunger obstructed.	Verify DC 24V power supply is connected and active. Check all wiring for secure connections. Inspect plunger for any physical obstructions. If coil damage is suspected, replace the unit.
Plunger movement is sluggish or incomplete.	Insufficient voltage or current. Friction due to dirt or misalignment. Excessive load on the plunger.	Confirm power supply meets 24V DC, 0.4A specifications. Clean the plunger area and ensure proper alignment. Reduce the load if it exceeds the 45N force rating.
Solenoid overheats during operation.	Continuous energization (not designed for continuous duty). Overvoltage or overcurrent. Poor ventilation.	Ensure the solenoid is used within its duty cycle (typically intermittent). Verify power supply voltage and current are within specifications. Ensure adequate airflow around the solenoid.

8. SPECIFICATIONS

Feature	Specification
Model	JF-Z05
Type	Pull Push, Open Frame
Rated Voltage	DC 24V
Rated Current	0.4A
Force / Stroke	45N / 10mm
Overall Size (L*W*H)	75 x 29 x 25mm (3" x 1.2" x 1")
Material	Metal, Electronic Parts
Net Weight	174g
Manufacturer	Aexit
Country of Manufacture	CHINA
ASIN	B07LFGCGQH

9. WARRANTY AND SUPPORT

Specific warranty information for the Aexit JF-Z05 DC Solenoid Electromagnet is not provided in the product details. For warranty claims or technical support, please contact your retailer or the manufacturer directly. Retain your purchase receipt as proof of purchase.

Manufacturer: Aexit

For further assistance, please refer to the contact information provided at the point of purchase.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question