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White-Rodgers 124-105111 DC Power Solenoid Instruction Manual

Model: 124-105111

1. PRODUCT OVERVIEW

This manual provides essential information for the safe and efficient installation, operation, and maintenance of the White-Rodgers 124-105111 DC Power Solenoid. This device is designed for continuous duty applications, featuring a 12V DC coil voltage and a 100/50 Amp rating.

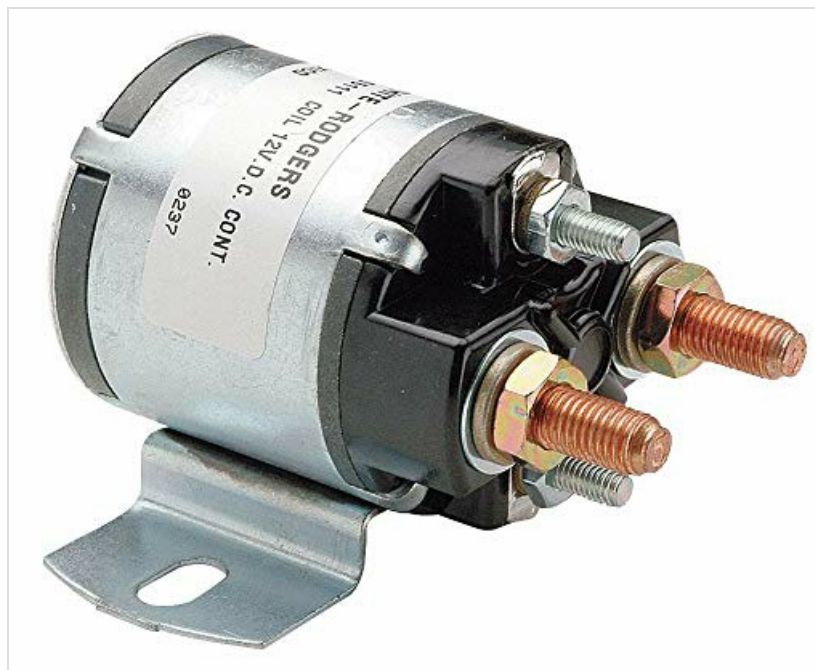


Figure 1: White-Rodgers 124-105111 DC Power Solenoid. This image shows the compact design of the solenoid with its terminals.

2. SAFETY INFORMATION

WARNING: Always disconnect power before installing or servicing this device. Failure to do so may result in electrical shock, personal injury, or equipment damage. Installation should be performed by qualified personnel in accordance with all local and national electrical codes.

- Ensure proper wire gauge is used for the current rating to prevent overheating.
- Verify correct polarity when connecting DC power.
- Mount the solenoid securely to prevent movement or vibration.
- Keep the solenoid free from excessive moisture and corrosive environments.

California Proposition 65 Warning: This product can expose you to chemicals including Styrene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

3. PRODUCT FEATURES

- **Item:** DC Power Solenoid
- **Coil Voltage DC:** 12V
- **Amps:** 100/50 (Continuous Duty)
- **Coil Type:** Isolated
- **Contact Form:** SPNO (Single Pole Normally Open)
- **Coil Termination:** #10-32 UNF-2A Thread
- **Contact Termination:** 5/16-24 UNF-2A Thread
- **Contact Material:** Silver Alloy
- **Duty Cycle:** Continuous
- **Mounting Base:** Standard Bracket
- **Series:** 124
- **Enclosure:** Dust Resistant

4. SETUP AND INSTALLATION

Follow these steps for proper installation of the DC Power Solenoid:

1. **Mounting:** Secure the solenoid using its standard bracket to a stable, vibration-free surface. Ensure adequate clearance for wiring and heat dissipation.
2. **Coil Wiring:** Connect the 12V DC control voltage to the #10-32 UNF-2A threaded coil terminals. Observe correct polarity if specified for your control circuit. The coil is isolated.
3. **Contact Wiring:** Connect the main power circuit to the 5/16-24 UNF-2A threaded contact terminals. Ensure these connections are tight and secure to handle the rated current (100/50 Amps).
4. **Verification:** After all connections are made, double-check wiring for correctness and tightness before applying power.

Note: The solenoid is designed for continuous duty, meaning it can remain energized for extended periods without damage.

5. OPERATION

The White-Rodgers 124-105111 is a Single Pole Normally Open (SPNO) solenoid. This means that when the 12V DC coil is de-energized, the main contacts are open, preventing current flow through the main power circuit. When 12V DC is applied to the coil terminals, the coil energizes, closing the main contacts and allowing current to flow through the main power circuit.

- **Energizing the Coil:** Apply 12V DC to the coil terminals. The solenoid will audibly click as the contacts close.

- **De-energizing the Coil:** Remove the 12V DC supply from the coil terminals. The solenoid will audibly click as the contacts open.

Ensure the control circuit provides stable 12V DC to the coil for reliable operation.

6. MAINTENANCE

The 124-105111 DC Power Solenoid is designed for minimal maintenance. However, periodic checks can ensure long-term reliability:

- **Visual Inspection:** Periodically inspect the solenoid for any signs of physical damage, corrosion, or loose connections.
- **Terminal Tightness:** Check that all electrical connections (coil and contact terminals) remain tight. Loose connections can cause resistance, heat buildup, and potential failure.
- **Cleanliness:** Although dust resistant, keep the solenoid free from excessive dust, dirt, and debris. Use a dry cloth or compressed air for cleaning.
- **Environmental Conditions:** Ensure the operating environment remains within specified temperature and humidity ranges.

7. TROUBLESHOOTING

If the solenoid is not functioning as expected, consider the following:

- **Solenoid Does Not Energize:**
 - Check for 12V DC supply at the coil terminals.
 - Verify coil wiring connections are secure and correct.
 - Inspect the coil for visible damage (e.g., burnt insulation).
- **Solenoid Energizes but Contacts Do Not Close (or Open):**
 - Listen for the audible click. If no click, refer to "Solenoid Does Not Energize."
 - Check for mechanical obstruction.
 - Verify the main contact terminals are correctly wired and not shorted.
- **Overheating:**
 - Ensure the solenoid is not exceeding its rated current.
 - Check for loose connections, which can cause resistance and heat.
 - Verify adequate ventilation around the solenoid.

If issues persist, contact a qualified electrician or the manufacturer for assistance.

8. SPECIFICATIONS

Attribute	Value
Manufacturer	White-Rodgers
Part Number	124-105111
Coil Voltage DC	12V
Amperage Rating	100/50 Amps
Duty Cycle	Continuous
Contact Form	SPNO (Single Pole Normally Open)
Coil Termination	#10-32 UNF-2A Thread
Contact Termination	5/16-24 UNF-2A Thread
Contact Material	Silver Alloy
Enclosure	Dust Resistant
Parcel Dimensions	5.08 x 5.08 x 5.08 cm

9. WARRANTY AND SUPPORT

For warranty information or technical support regarding your White-Rodgers 124-105111 DC Power Solenoid, please contact White-Rodgers directly or refer to their official website. Keep your purchase receipt for warranty claims.

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