

Red Lion PAXCDS20

Red Lion Controls PAXCDS20 Pax Quad Setpoint Relay Output Card Instruction Manual

For use with PAX Series Meters

1. PRODUCT OVERVIEW

The Red Lion Controls PAXCDS20 is a Quad Setpoint Relay Output Card designed to expand the functionality of Red Lion PAX Series Meters. This card provides four independent relay outputs, enabling the meter to control external devices or trigger alarms based on configured setpoints. It integrates seamlessly with compatible PAX meters, offering enhanced control capabilities for various industrial applications.



Image 1.1: The Red Lion Controls PAXCDS20 Pax Quad Setpoint Relay Output Card. This image displays the green circuit board with black relay components and a terminal block for connections.

2. INSTALLATION AND SETUP

Proper installation is crucial for the reliable operation of the PAXCDS20 card. Ensure all power is disconnected from the PAX meter before proceeding with installation.

2.1 Physical Installation

- Power Disconnection:** Turn off and disconnect all power to the PAX Series Meter.
- Access Slot:** Locate the expansion slot on the rear or side of the PAX meter, as specified in the meter's primary manual.
- Insert Card:** Carefully align the PAXCDS20 card with the expansion slot connector. Gently push the card into the slot until it is fully seated. Avoid excessive force.
- Secure Card:** If applicable, use any provided screws or clips to secure the card in place within the meter housing.

2.2 Electrical Connections

The PAXCDS20 card provides four relay outputs. Refer to the wiring diagram in the PAX meter's main manual for specific terminal assignments.

- **Relay Outputs:** Connect external devices (e.g., alarms, contactors, solenoids) to the appropriate relay output terminals. Ensure that the voltage and current ratings of the connected devices do not exceed the specifications of the PAXCDS20 relays.
- **Wiring Practices:** Use appropriate wire gauges and follow all local electrical codes and safety regulations.

3. OPERATION

Once installed, the PAXCDS20 card's relay outputs are controlled by the setpoint configurations within the host PAX Series Meter. The card itself does not have user-configurable settings; all control is managed through the meter's programming.

3.1 Setpoint Configuration

Refer to the Red Lion PAX Series Meter's primary instruction manual for detailed instructions on configuring setpoints. This typically involves:

- Accessing the meter's programming menu.
- Defining the setpoint values (e.g., high limit, low limit).
- Assigning each setpoint to a specific relay output on the PAXCDS20 card.
- Configuring the relay action (e.g., normally open/closed, latching/non-latching, delay times).

3.2 Relay Output Functionality

When a configured setpoint condition is met by the PAX meter's input, the corresponding relay on the PAXCDS20 card will activate or deactivate according to its programmed logic. This action can then control the connected external device.

4. MAINTENANCE

The PAXCDS20 card is designed for long-term, reliable operation with minimal maintenance. However, periodic inspection can help ensure continued performance.

- **Visual Inspection:** Periodically inspect the card and its connections for any signs of damage, corrosion, or loose wiring.
- **Cleaning:** If necessary, gently clean the card using a soft, dry brush or compressed air to remove dust and debris. Do not use liquid cleaners or solvents.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature and humidity ranges to prevent premature component failure.

5. TROUBLESHOOTING

If you encounter issues with the PAXCDS20 card, consider the following troubleshooting steps:

Problem	Possible Solution
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Problem	Possible Solution
Relay outputs not activating	<ul style="list-style-type: none">• Verify setpoint configuration in the PAX meter.• Check wiring to external devices for proper connection and continuity.• Ensure the PAX meter is powered on and functioning correctly.• Confirm the input signal to the PAX meter is within the expected range to trigger the setpoint.
Intermittent relay operation	<ul style="list-style-type: none">• Inspect for loose connections or damaged wiring.• Check for electrical noise or interference in the environment.• Ensure the power supply to the PAX meter is stable.
Card not recognized by PAX meter	<ul style="list-style-type: none">• Ensure the card is fully seated in the expansion slot.• Power cycle the PAX meter after installation.• Verify compatibility of the PAXCDS20 with your specific PAX meter model.

If problems persist after attempting these solutions, contact Red Lion Controls technical support.

6. TECHNICAL SPECIFICATIONS

- Manufacturer:** Red Lion Controls
- Model:** PAXCDS20
- Product Type:** Quad Setpoint Relay Output Card
- Compatibility:** Red Lion PAX Series Meters
- Outputs:** 4 Form C (SPDT) Relays
- Relay Rating:** (Refer to the specific PAX meter manual or Red Lion Controls datasheet for detailed current/voltage ratings)
- Installation:** Plug-in expansion card
- Date First Available:** May 7, 2018

7. WARRANTY AND SUPPORT

Red Lion Controls products are manufactured to high standards and are typically covered by a limited warranty against defects in materials and workmanship. For specific warranty terms and conditions applicable to the PAXCDS20, please refer to the official Red Lion Controls website or the documentation included with your PAX Series Meter.

For technical assistance, product support, or to report issues, please contact Red Lion Controls customer service or visit their official support portal. Provide your product model number (PAXCDS20) and any relevant details about your system when seeking support.