Dayton G5861581

Dayton 24EN73 Time Delay Relay User Manual

Model: G5861581

1. Introduction

The Dayton 24EN73 is a versatile time delay relay designed for industrial and commercial applications requiring precise timing control. This device operates on 120 VAC/DC power, handles up to 10 A, and features a Double Pole Double Throw (DPDT) contact configuration. It is engineered for reliable performance in various control circuits, providing timed switching functions to automate processes.

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Dayton 24EN73 Time Delay Relay. Please read it thoroughly before use.

2. Safety Information

WARNING: Electrical shock hazard. Improper installation or use can result in serious injury or death. Always disconnect power before installing, servicing, or removing this device.

- Installation and servicing should only be performed by qualified personnel in accordance with all national and local electrical codes.
- Ensure the power supply voltage and current ratings match the specifications of the relay.
- Do not operate the relay in environments exceeding its specified temperature or humidity limits.
- Verify all connections are secure and properly insulated to prevent short circuits.
- Never attempt to open or repair the relay housing. Refer servicing to authorized personnel.

3. Product Features

- **Input Voltage:** 120 VAC/DC
- **Contact Rating:** 10 Amperes
- **Contact Configuration:** Double Pole Double Throw (DPDT)
- **Mounting Type:** Plug-In Mount
- **Function:** Time Delay Relay
- **Compact Design:** Suitable for various control panel installations.

4. Specifications



Image: Dayton 24EN73 Time Delay Relay. This image displays the compact form factor of the relay, typically used in industrial control applications. The relay features a plug-in base for easy installation and replacement.

Attribute	Value
Manufacturer	Dayton
Part Number	24EN73
Model Number	G5861581
Input Voltage	120 VAC/DC
Current Rating	10 A
Contact Configuration	DPDT (Double Pole Double Throw)
Wattage	2 watts
Mounting Type	Plug In Mount
Connector Type	Plug-In
Item Weight	113 g
Parcel Dimensions	10.8 x 6.35 x 4.78 cm
UPC	190735191040

5. Installation and Setup

The Dayton 24EN73 Time Delay Relay is designed for plug-in mounting, typically into a compatible relay socket (not included). Ensure the socket is rated for the relay's voltage and current.

1. **Power Disconnection:** Before beginning any installation, ensure that all power to the circuit is disconnected at the main breaker or fuse box. Verify with a voltage tester.
2. **Socket Preparation:** Mount the appropriate relay socket securely in the desired location within the control panel or enclosure.
3. **Wiring:** Wire the relay socket according to your application's schematic and local electrical codes. Pay close attention to the coil connections (for power) and the DPDT contact connections (for the load).
4. **Relay Insertion:** Carefully align the pins of the Dayton 24EN73 relay with the corresponding holes in the socket. Gently push the relay into the socket until it is fully seated. Do not force it.
5. **Verification:** Double-check all wiring for correctness and security. Ensure no bare wires are exposed.
6. **Power Restoration:** Once installation is complete and verified, restore power to the circuit.

Note: Specific wiring diagrams for your application should be consulted. If you are unsure about any step, consult a qualified electrician.

6. Operating Instructions

The Dayton 24EN73 is a time delay relay. Its operation depends on the specific timing function (e.g., On-Delay, Off-Delay, Interval) it is configured for within your control system. This relay itself does not have user-adjustable timing settings; its timing characteristics are inherent to its design or determined by external components in the circuit.

- **Power Application:** When power is applied to the relay coil (120 VAC/DC), the internal timing circuit begins its sequence.
- **Timing Sequence:** After the preset time delay has elapsed, the DPDT contacts will switch state. For example, normally open (NO) contacts will close, and normally closed (NC) contacts will open.
- **Load Control:** The switching of the contacts controls the connected load (e.g., motor, light, solenoid).
- **Reset:** The relay typically resets its timing sequence when power is removed from the coil, or as dictated by its specific timing function.

Refer to your overall system's control schematic for details on how this specific time delay relay integrates and functions within your application.

7. Maintenance

The Dayton 24EN73 Time Delay Relay is designed for long-term, maintenance-free operation under normal conditions. However, periodic inspection of the installation environment and connections is recommended.

- **Visual Inspection:** Periodically inspect the relay and its socket for any signs of physical damage, discoloration, or loose connections.
- **Environmental Check:** Ensure the operating environment remains within the specified temperature and humidity ranges. Excessive dust, moisture, or corrosive atmospheres can degrade performance and lifespan.
- **Connection Integrity:** With power disconnected, gently check that the relay is firmly seated in its socket and that all wiring connections are tight.
- **Cleaning:** If necessary, gently clean the exterior of the relay with a dry, soft cloth. Do not use solvents or abrasive cleaners.

No internal user-serviceable parts are present. Do not attempt to disassemble the relay.

8. Troubleshooting

If the Dayton 24EN73 Time Delay Relay is not functioning as expected, consider the following troubleshooting steps:

- **No Operation:**
  - Verify that power is correctly supplied to the relay coil (120 VAC/DC).
  - Check for loose or incorrect wiring connections at the relay socket.
  - Ensure the relay is fully seated in its socket.
  - Confirm that the control signal triggering the relay is present and correct.
- **Incorrect Timing:**
  - The Dayton 24EN73 has a fixed timing characteristic. If the timing is incorrect, verify that the correct relay model is installed for your application.
  - Check for external timing components (e.g., resistors, capacitors) if your system uses them to modify the relay's inherent timing.
- **Contacts Not Switching:**
  - Ensure the relay coil is energized and the timing sequence has completed.
  - Verify that the load connected to the contacts is not exceeding the relay's 10 A rating, which could cause contact welding or failure.
  - Check the continuity of the contacts with a multimeter (with power disconnected) to confirm they are opening and closing as expected.
- **Intermittent Operation:**
  - Inspect for intermittent power supply issues or loose connections.
  - Check for excessive vibration or temperature fluctuations in the operating environment.

If issues persist after performing these checks, the relay may be faulty and require replacement. Always disconnect power before replacing the unit.

9. Warranty and Support

Specific warranty information for the Dayton 24EN73 Time Delay Relay is typically provided by the manufacturer or the point of purchase. Please refer to the documentation included with your purchase or visit the official Dayton website for detailed warranty terms and conditions.

For technical support, product inquiries, or assistance with troubleshooting beyond the scope of this manual, please contact Dayton customer service or your authorized distributor. Have your product model number (G5861581) and part number (24EN73) ready when contacting support.

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