NuNeth SZR-MY4-N1

NuNeth SZR-MY4-N1 Series Relay User Manual

Model: SZR-MY4-N1, SZX-SMF-14N Base

1. Introduction

This manual provides essential information for the safe and effective use of the NuNeth SZR-MY4-N1 series industrial relays and the compatible SZX-SMF-14N relay base. These relays are designed for various industrial control applications, offering reliable switching capabilities. Please read this manual thoroughly before installation and operation to ensure proper functionality and safety.

2. Product Features

- **Versatile Voltage Options:** Available in 24VDC, 100VAC, and 200VAC coil voltage variants to suit diverse power requirements.
- **High Current Capacity:** Designed to handle up to 10A, suitable for various load types.
- **Automatic Operation:** Features automatic operation for seamless integration into control systems.
- **Normally Open Configuration:** Contacts are normally open, providing flexibility in circuit design.
- **Durable Construction:** Housed in a clear, protective casing for visual inspection and enhanced durability.
- **Compatible Base:** Designed for use with the SZX-SMF-14N track-mounted socket for secure and organized installation.

3. Safety Information

WARNING: Risk of Electric Shock. Installation and maintenance should only be performed by qualified personnel.

- Always disconnect power before installing, wiring, or servicing the relay or its base.
- Ensure all wiring conforms to local and national electrical codes.
- Do not exceed the specified voltage and current ratings of the relay and base.

- Protect the relay from moisture, dust, and extreme temperatures.
- Verify correct polarity for DC coil versions.

4. Setup and Installation

The SZR-MY4-N1 relay is designed to be installed into a compatible SZX-SMF-14N track-mounted socket. Ensure the socket is securely mounted before inserting the relay.

4.1. Relay Variants

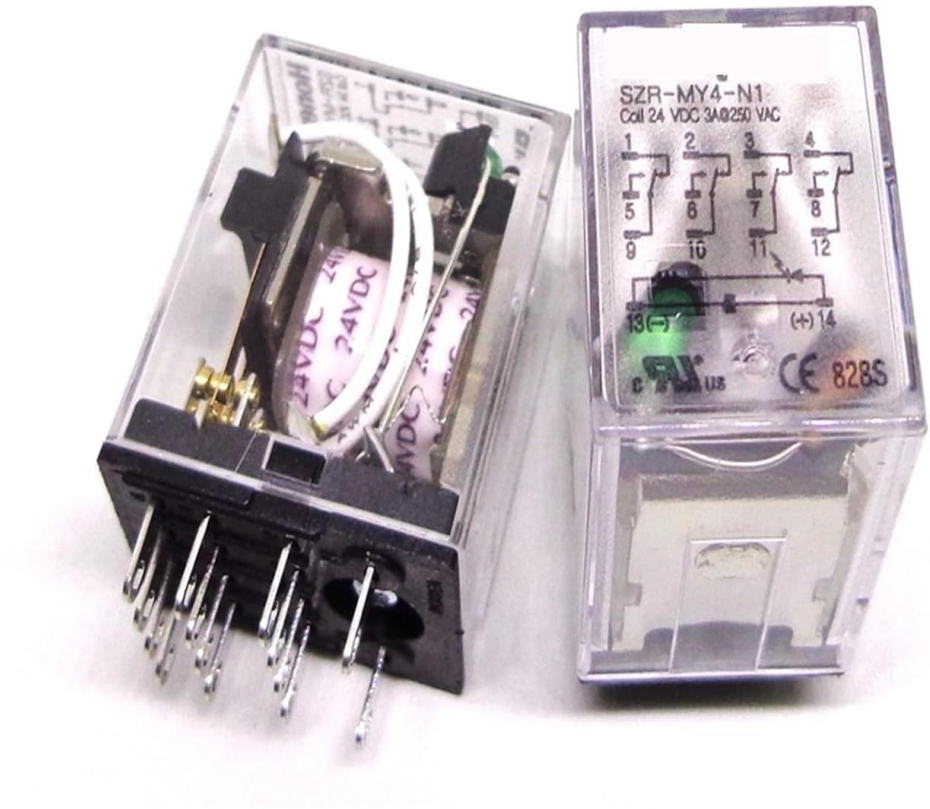

Figure 4.1.1: NuNeth SZR-MY4-N1 24VDC Relay. This image shows the 24VDC version of the SZR-MY4-N1 relay, highlighting its transparent casing and internal components, including the coil and pin configuration.

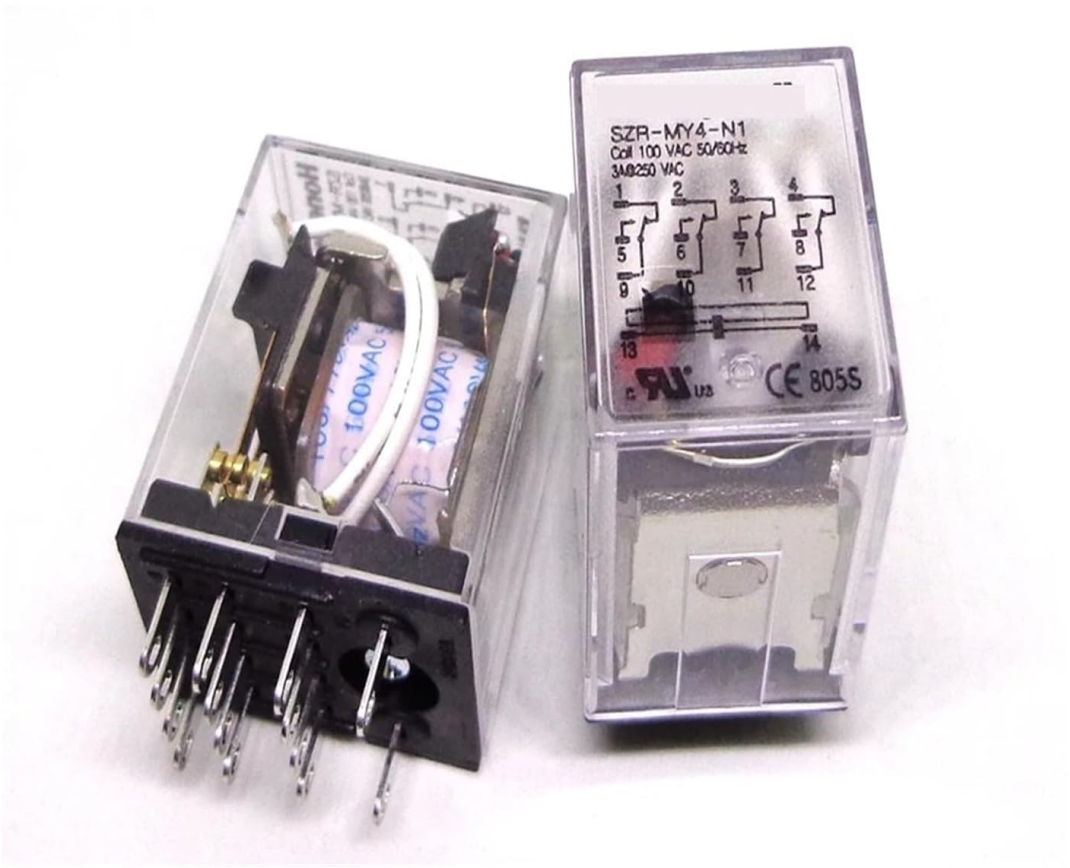

Figure 4.1.2: NuNeth SZR-MY4-N1 100VAC Relay. This image displays the 100VAC version of the SZR-MY4-N1 relay, similar in appearance to the 24VDC model but with a different coil voltage rating.

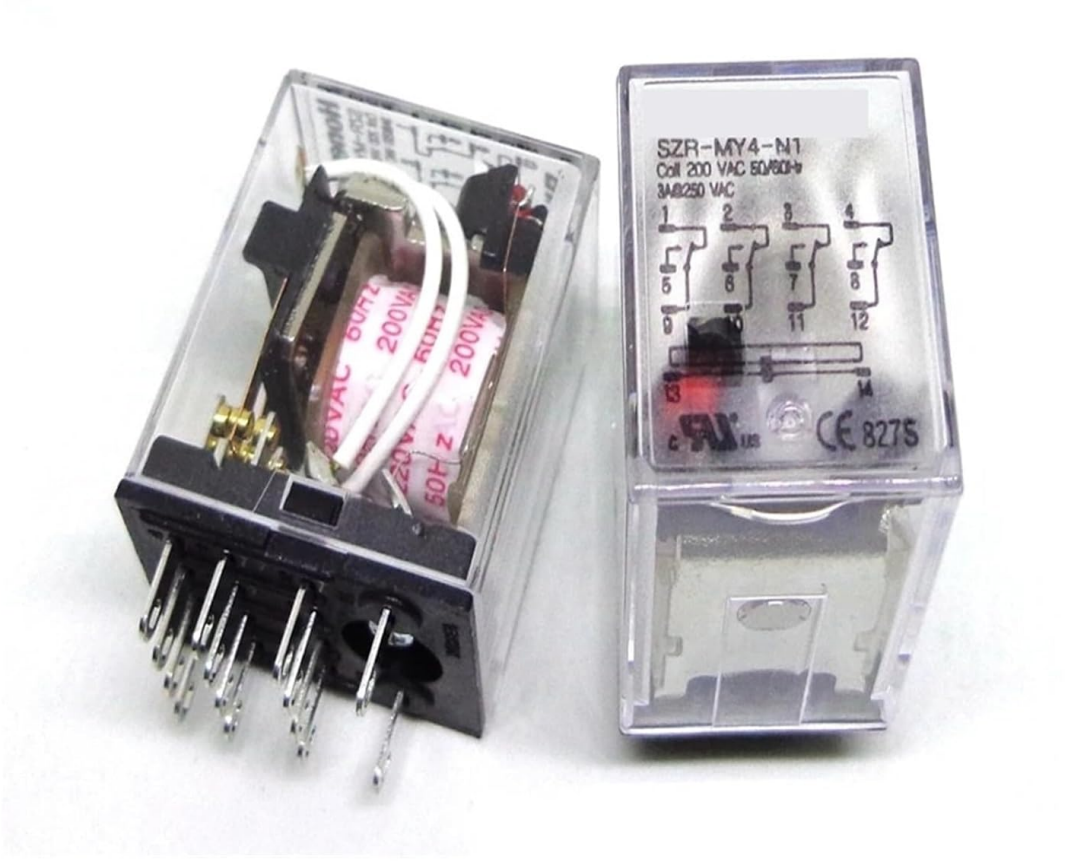

Figure 4.1.3: NuNeth SZR-MY4-N1 200VAC Relay. This image presents the 200VAC version of the SZR-MY4-N1 relay, showing its transparent housing and the internal coil labeled for 200VAC operation.

4.2. Relay Base (SZX-SMF-14N)

Figure 4.2.1: NuNeth SZX-SMF-14N Track Mounted Socket. This image shows the black track-mounted socket designed for the SZR-MY4-N1 relay, featuring screw terminals for wiring connections and a yellow release lever.

4.3. Wiring Instructions

1. **Mount the Base:** Securely mount the SZX-SMF-14N track-mounted socket to a DIN rail or panel using appropriate fasteners.
2. **Wire the Coil:** Connect the control voltage (24VDC, 100VAC, or 200VAC, depending on your relay model) to the coil terminals of the SZX-SMF-14N base. Refer to the wiring diagram on the relay for specific coil pin numbers (typically pins 13 and 14).
3. **Wire the Contacts:** Connect the load circuit to the appropriate contact terminals on the SZX-SMF-14N base. The SZR-MY4-N1 typically features multiple sets of normally open (NO) contacts. Consult the relay's diagram for contact pin assignments (e.g., 1-4, 5-8, 9-12).
4. **Insert the Relay:** Carefully align the pins of the SZR-MY4-N1 relay with the corresponding sockets on the SZX-SMF-14N base. Gently push the relay down until it is fully seated.
5. **Verify Connections:** Double-check all wiring for correctness and secure connections before applying power.

5. Operation

The NuNeth SZR-MY4-N1 relay operates by energizing its internal coil, which in turn actuates the mechanical contacts. When the specified coil voltage is applied to pins 13 and 14 of the relay (via the base), the coil creates a magnetic field. This field pulls the armature, causing the normally open contacts to close, thereby completing the load circuit. When the coil voltage is removed, the magnetic field collapses, and the contacts return to their normally open state.
Ensure the control signal matches the coil voltage of the specific relay variant being used (24VDC, 100VAC, or 200VAC).

6. Maintenance

The SZR-MY4-N1 relay is designed for long-term reliability with minimal maintenance. However, periodic inspection can help ensure optimal performance:

- **Visual Inspection:** Regularly check the relay and base for any signs of physical damage, discoloration, or loose connections.
- **Cleanliness:** Keep the relay and its surroundings free from dust, dirt, and moisture, which can affect performance and lifespan. Use a dry, soft cloth for cleaning.
- **Connection Integrity:** Periodically verify that all screw terminals on the SZX-SMF-14N base are tight and that wires are securely connected.

7. Troubleshooting

If the relay is not functioning as expected, consider the following common issues:

- **Relay Not Actuating:**
    - Check if the correct coil voltage is being applied to pins 13 and 14.
    - Verify that the coil voltage matches the relay's specified rating (e.g., 24VDC relay requires 24VDC).
    - Inspect wiring for loose connections or breaks.
    - Ensure the control circuit is providing sufficient current to energize the coil.
- **Load Not Switching:**
    - Confirm the relay coil is actuating (you may hear a click or see an indicator if present).
    - Check the load circuit wiring for continuity and correct connections to the relay contacts.
    - Ensure the load current does not exceed the relay's contact rating (10A).
    - Test the load independently to rule out issues with the load device itself.
- **Intermittent Operation:**
    - Check for unstable control voltage or current.
    - Inspect for loose connections at the relay base or within the control panel.
    - Ensure the operating environment is within specified temperature and humidity ranges.

If problems persist, consult a qualified electrician or contact NuNeth customer support.

8. Specifications

Attribute	Value

Attribute	Value
Brand	NuNeth
Model Number	SZR-MY4-N1
Compatible Base	SZX-SMF-14N
Coil Voltage Options	24VDC, 100VAC, 200VAC
Operation Mode	Automatic
Contact Type	Normally Open (NO)
Current Rating	10A (Max)
Connector Type	Screw (on base)
Package Dimensions	1.18 x 0.79 x 0.39 inches (Relay only)
Item Weight	Approx. 4.41 Pounds (for multiple units/packaging)
Country of Origin	China
Date First Available	March 18, 2024

9. Warranty and Support

For information regarding product warranty, technical support, or service, please contact your point of purchase or refer to the official NuNeth website. Keep your purchase receipt as proof of purchase.