

Fuji Electric SZ-AS2

Fuji Electric SZ-AS2 Auxiliary Contact Block User Manual

Model: SZ-AS2 | Brand: Fuji Electric

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of the Fuji Electric SZ-AS2 Auxiliary Contact Block. This device is designed to expand the control capabilities of compatible Fuji Electric contactors by providing additional switching contacts.

2. SAFETY INFORMATION

Adherence to the following safety guidelines is crucial for preventing injury and damage to equipment. Only qualified personnel should perform installation, wiring, and maintenance procedures.

- **Disconnect Power:** Always ensure that all power to the main contactor and control circuits is disconnected and locked out before installing, wiring, or performing any maintenance on the auxiliary contact block.
- **Electrical Codes:** Install and wire the device in accordance with all applicable national, state, and local electrical codes and regulations.
- **Proper Tools:** Use appropriate insulated tools for electrical work.
- **Grounding:** Ensure proper grounding of the main contactor and associated equipment.
- **Environmental Conditions:** Do not expose the device to conditions beyond its specified operating environment (e.g., excessive moisture, extreme temperatures, corrosive atmospheres).

3. PRODUCT OVERVIEW

The Fuji Electric SZ-AS2 is an auxiliary contact block designed for side mounting onto specific Fuji Electric contactors, such as the 3NC2T0-3NC5H0 series. It provides additional electrical contacts for control and signaling purposes, operating in conjunction with the main contactor's state.



Figure 1: Fuji Electric SZ-AS2 Auxiliary Contact Block. This image displays the compact black auxiliary contact block with its label clearly visible, showing model number SZ-AS2, electrical ratings, and terminal markings.

Key Features:

- **Contact Configuration:** 2 Normally Open (N.O.) and 2 Normally Closed (N.C.) contacts.
- **Mounting:** Designed for easy side mounting (left or right) on compatible contactors.
- **Reliability:** Manufactured to Fuji Electric's quality standards for industrial applications.
- **Standards Compliance:** Meets international standards including JIS C 8201, IEC/EN 60947, and GB 14048.5 VDE 0660.

4. SPECIFICATIONS

Parameter	Value
Model Number	SZ-AS2

Parameter	Value
Contact Configuration	2 N.O. (Normally Open) / 2 N.C. (Normally Closed)
Rated Insulation Current (Ith)	10A
Rated Operational Voltage (AC-15)	100-120V: 6A 200-240V: 3A 380-480V: 1.5A 500-600V: 1.2A
UL/CSA Ratings	A600, Q300
Mounting Type	Side Mount (Left or Right)
Compatible Contactors	Fuji Electric 3NC2T0-3NC5H0 series
Approximate Dimensions (L x W x H)	2.5 x 2 x 2 inches (63.5 x 50.8 x 50.8 mm)
Approximate Weight	1.75 lbs (0.79 kg)
Standards	JIS C 8201, IEC/EN 60947, GB 14048.5 VDE 0660
Origin	Made in Japan

5. INSTALLATION (SETUP)

Follow these steps for proper installation of the auxiliary contact block.

5.1. Mounting

1. Ensure the main contactor is completely de-energized and secured against accidental re-energization.
2. Locate the side mounting slots on the main contactor.
3. Align the Fuji Electric SZ-AS2 auxiliary contact block with these slots.
4. Slide the auxiliary contact block firmly onto the contactor until it clicks securely into place. Verify that it is seated properly and does not wobble.

5.2. Wiring

1. Refer to your control circuit schematic to identify the required N.O. and N.C. contact connections.
2. The terminal markings on the SZ-AS2 typically follow IEC standards: 53-54 and 83-84 for Normally Open (N.O.) contacts, and 61-62 and 71-72 for Normally Closed (N.C.) contacts.
3. Connect the control circuit wires to the appropriate terminals.
4. Ensure all terminal screws are tightened to the manufacturer's specified torque to prevent loose connections and potential hazards.

6. OPERATION

The Fuji Electric SZ-AS2 auxiliary contact block operates in direct synchronization with the main contactor to which it is attached.

- **Contactor De-energized:** When the main contactor's coil is de-energized, its main contacts are in their normal state. Simultaneously, the N.O. contacts (53-54, 83-84) of the SZ-AS2 are open, and the N.C. contacts (61-62,

71-72) are closed.

- **Contactor Energized:** When the main contactor's coil is energized, its main contacts change state. Concurrently, the N.O. contacts of the SZ-AS2 close, and the N.C. contacts open.

These auxiliary contacts are commonly used for interlocking circuits, signaling lamp control, motor starter feedback, or other control logic functions within an industrial control system.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable operation of the auxiliary contact block.

- **Periodic Inspection:** Visually inspect the auxiliary contact block and its wiring connections at regular intervals (e.g., during scheduled equipment maintenance). Look for signs of physical damage, discoloration from overheating, or loose wires.
- **Cleaning:** Keep the contact block free from dust, dirt, and other contaminants. Use a dry, clean, lint-free cloth for cleaning. *Do not use solvents or abrasive cleaners.*
- **Connection Check:** Periodically re-check the tightness of all terminal screws to ensure secure electrical connections.
- **Contact Wear:** If operational issues arise, and after disconnecting power, inspect the contact surfaces for excessive pitting, burning, or wear. If contacts are severely degraded, the auxiliary contact block should be replaced.

8. TROUBLESHOOTING

This section provides guidance for common issues encountered with the auxiliary contact block.

Problem	Possible Cause	Solution
Auxiliary contacts not changing state	Main contactor not operating correctly	Check the main contactor's coil voltage and mechanical operation.
	Auxiliary contact block not properly mounted	Ensure the auxiliary contact block is firmly seated on the main contactor.
	Damaged auxiliary contact block	Replace the auxiliary contact block.
Intermittent operation of auxiliary contacts	Loose wiring connections	Tighten all terminal screws to the specified torque.
	Dust or debris interfering with contacts	Disconnect power and carefully clean the contact block.

9. DISPOSAL

When the Fuji Electric SZ-AS2 Auxiliary Contact Block reaches the end of its service life, it should be disposed of responsibly. This product contains electrical components and should not be discarded with general household waste. Please follow all local environmental regulations and guidelines for the recycling or disposal of electronic and electrical equipment.

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.

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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