ABB CAL5-11

ABB CAL5-11 Auxiliary Contact User Manual

Model: CAL5-11

Introduction

The ABB CAL5-11 auxiliary contact is an essential component designed to expand the functionality of contactors and circuit breakers. It provides additional normally open (NO) and normally closed (NC) contacts for signaling, interlocking, and control circuit applications. This manual provides detailed information on the installation, operation, maintenance, and specifications of the CAL5-11 auxiliary contact.



Figure 1: Two ABB CAL5-11 auxiliary contacts alongside their original packaging.

Product Identification

Each CAL5-11 auxiliary contact is clearly marked with its model number and relevant certifications. The packaging also contains important identification details.



Figure 2: Detailed view of the CAL5-11 packaging label, displaying the model number, part numbers (e.g., 1SBN010020R1011), and a barcode (3471522121073).

Setup and Installation

The CAL5-11 auxiliary contact is designed for easy snap-on or screw-on installation to compatible ABB contactors or circuit breakers. Always ensure power is disconnected before installation.

1. **Safety First:** Ensure all power to the main contactor or circuit breaker is completely shut off and locked out before beginning installation.
2. **Identify Mounting Location:** Locate the designated mounting slots or points on the side or front of the main device where the auxiliary contact will attach.
3. **Attach Auxiliary Contact:** Align the auxiliary contact with the mounting points and firmly press or slide it into place until it clicks or is securely fastened. Some models may require screws for attachment.
4. **Wire Connections:** Connect the control circuit wires to the appropriate terminals on the auxiliary contact. The terminals are typically marked for Normally Open (NO) and Normally Closed (NC) contacts. Refer to the markings on the device for correct wiring.


43X
NO
34X
NO
31X
NC
22X
NC
CAL5



Figure 3: Side views of the CAL5-11 auxiliary contact, illustrating the screw terminals for electrical connections. Note the NO (Normally Open) and NC (Normally Closed) markings.

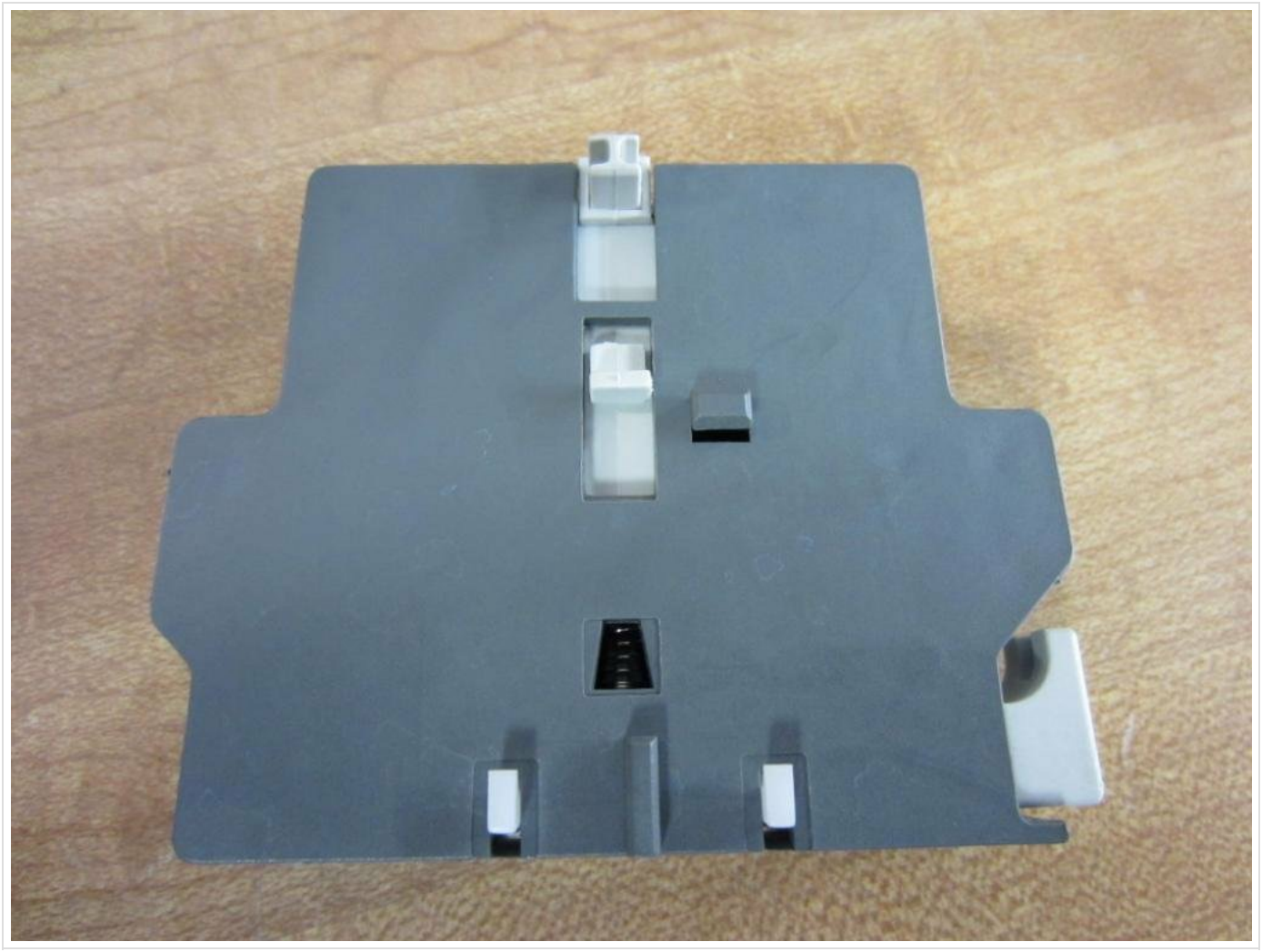


Figure 4: Rear view of the CAL5-11 auxiliary contact, showing the snap-on or screw-on mounting interface for attachment to a main contactor or circuit breaker.

Operating Principle

The CAL5-11 auxiliary contact operates in conjunction with the main device (contactor or circuit breaker) to which it is attached. When the main device changes state (e.g., energizes or trips), the auxiliary contacts also change state, providing electrical signals for various control functions.

- **Normally Open (NO) Contacts:** These contacts are open when the main device is de-energized or in its default state, and they close when the main device is energized or activated.
- **Normally Closed (NC) Contacts:** These contacts are closed when the main device is de-energized or in its default state, and they open when the main device is energized or activated.

These contacts can be used for applications such as:

- Indicator lights (e.g., "contactor on" light)
- Interlocking circuits to prevent simultaneous operation of conflicting devices
- Control circuit logic
- Remote signaling

Maintenance

The ABB CAL5-11 auxiliary contact is designed for long-term reliability with minimal maintenance. However, periodic inspection is recommended to ensure optimal performance and safety.

- **Visual Inspection:** Regularly inspect the auxiliary contact for any signs of physical damage, discoloration, or loose connections.
- **Terminal Tightness:** Periodically check that all wire connections to the terminals are secure. Loose connections can lead to overheating or intermittent operation.
- **Cleanliness:** Ensure the contact is free from dust, dirt, or moisture accumulation, which can affect performance. Use a dry, lint-free cloth for cleaning. Do not use solvents.
- **Functionality Check:** If possible and safe to do so, verify the proper operation of the NO and NC contacts by observing associated indicator lights or control circuit responses when the main device is activated.

Troubleshooting

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

Problem	Possible Cause	Solution
Auxiliary contact not changing state.	• Incorrect wiring (NO/NC terminals). • Loose connection to main device. • Main device not activating. • Damaged auxiliary contact.	• Verify wiring against device markings. • Ensure auxiliary contact is securely mounted. • Check operation of the main contactor/breaker. • Replace the auxiliary contact if damaged.
Intermittent operation.	• Loose wire connections. • Dust or debris affecting contacts.	• Tighten all terminal screws. • Clean the contact thoroughly.

If issues persist, consult a qualified electrician or contact ABB technical support.

Specifications

The following specifications apply to the ABB CAL5-11 Auxiliary Contact:



Figure 5: Front view of the CAL5-11 auxiliary contact, displaying key electrical ratings and compliance marks such as UL, IND. CONT. EQ., CCC, and CE.

Attribute	Value
Brand	ABB
Model Number	CAL5-11
Connector Type	Screw
Rated Insulation Voltage (Ui)	690V~
Conventional Thermal Current (Ith)	16A
Rated Operational Current (Ie) AC-15	• 230V: 4A • 400V: 3A • 500V: 2A • 690V: 1A
Standards	IEC 60947-5-1, EN 60947-5-1
Certifications	UL Listed 94D7 IND. CONT. EQ., CCC, CE
Manufacturing Origin	Made in Czech Republic
Package Dimensions	4.96 x 3.86 x 1.89 inches

Attribute	Value
Item Weight	1.28 ounces

Warranty and Support

For information regarding warranty terms, technical support, or service for your ABB CAL5-11 auxiliary contact, please refer to the official ABB website or contact your authorized ABB distributor. Product documentation and support resources are typically available through these channels.
You can visit the official ABB store for more products and information:ABB Store on Amazon

© 2024 ABB. All rights reserved. Information subject to change without notice.