

ICS 29.120.70; 31.220.99
CCS L 25



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 21711.3-2025

**Electromechanical elementary relays - Part 3: Relays with
forcibly guided (mechanically linked) contacts**
(English Translation)

Issued on: May 30, 2025

Implemented on: May 30, 2025

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is part 3 of GB/T 21711 "Basic electromechanical relays". GB/T 21711 has

been published in the following parts.

- Part 1: General and safety requirements;
- Part 2: Reliability;
- Part 2-1. Reliability B10 value verification procedure;
- Part 3: Forced positioning (mechanical interlocking) contact relays;
- Part 7: Test and measurement procedures;
- Part 10: Additional functional characteristics and safety requirements for large capacity relays.

This document is equivalent to IEC 61810-3:2015 "Basic electromechanical relays Part 3: Forced positioning (mechanical interlocking) contact relays "Instrument".

Introduction

In order to standardize the development, testing, quality assessment and use of relay products in my country and promote the steady and coordinated development of the relay industry, this GB/T 21711. GB/T 21711 is the basic product specification for various basic electromechanical relays and is intended to consist of seven parts.

- Part 1: General and safety requirements. The purpose is to determine the basic electromechanical relays used in various fields of electrical or electronic engineering Functional and safety requirements and safety related characteristics.
 - Part 2: Reliability. The purpose is to standardize the requirements for reliability assessment of basic electromechanical relays.
 - Part 2-1. Reliability B10 value verification procedure. The purpose is to standardize the reliability index assessment of basic electromechanical relays and reliability growth requirements assessment requirements.
 - Part 3: Forced positioning (mechanical interlocking) contact relays. The purpose is to add applicable Special requirements for forced positioning (mechanical interlocking) contact relays.
 - Part 4: General and safety requirements for reed relays. The purpose is to provide reed relays suitable for general control circuits.
- Establish basic functional and safety requirements.
- Part 7: Test and measurement procedures. The purpose is to specify the test and measurement procedures applicable to basic electromechanical relays.
 - Part 10: Additional functional characteristics and safety requirements for large capacity relays. The purpose is to build on the general requirements of Part 1.

In addition, additional functional characteristics and safety requirements applicable to large-capacity relays are added.

Basic Electromechanical Relays Part 3: Positive positioning (mechanical interlocking) contacts Relay

1 Scope

This document specifies specific requirements and tests for positive position (mechanical interlock) contact based relays. These requirements are based on Special requirements based on the general requirements of GB/T 21711.1.

NOTE 1 This document does not apply to electromechanical control circuit appliances as described in IEC 60947-5-1.

NOTE 2 IEC 61810-2-1 provides guidance on the evaluation of reliability values.

NOTE 3 This document does not consider contacts that are not positively positioned (mechanically interlocked).

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 21711.1-2023 Basic electromechanical relays Part 1: General and safety requirements (IEC 61810-1:2015, IDT) IEC 60947-5-1 Low-voltage switchgear and controlgear Part 5-1. Control circuits and switching elements Electromechanical control circuits Note. GB/T 14048.5-2017 Low-voltage switchgear and controlgear Part 5-1. Control circuit devices and switching elements Electromechanical control circuits Electrical appliances (IEC 60947-5-1:2016, MOD) Note. GB/T 21711.7-2018 Basic electromechanical relays Part 7: Test and measurement procedures (IEC 61810-7:2006, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

elementary relay

An all or nothing relay that operates and releases without any predetermined delay.

NOTE: In this document, the word "foundation" is sometimes omitted for clarity.

[Source. GB/T 2900.63-2003, 444-01-03, modified] 3.2 Failure to open A fault or failure

condition where the contacts do not open as expected.