

Harmonized system of quality assessment for electronic components — Generic specification: Electromechanical switches

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Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Electronic Components Standards Committee (ECL/-) to Technical Committee ECL/21, upon which the following bodies were represented:

- British Telecommunications plc
- Electronic Components Industry Federation
- Electronic Engineering Association
- Ministry of Defence
- National Supervising Inspectorate
- Society of British Aerospace Companies Limited
- Telecommunication Engineering and Manufacturing Association (TEMA)

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

Association of Control Manufacturers — TACMA (BEAMA Ltd.) BEAMA Ltd.

This British Standard, having been prepared under the direction of the Electronic Components Standards Committee, was published under the authority of the Board of BSI and comes into effect on 31 March 1987

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National foreword

This British Standard has been prepared under the direction of the Electronic Components Standards Committee. It is identical with CENELEC Electronic Components Committee (CECC) 96000:1985 “*Harmonized system of quality assessment for electronic components. Generic specification: Electromechanical switches*”.

This standard gives the terminology, quality assessment procedures and test and measurement conditions applicable to electromechanical switches.

Any sectional and blank detail specification to be used in conjunction with this standard will select those tests which are considered appropriate and will also give more detailed information.

This standard is a harmonized specification within the CECC system.

This standard specifies the use of substances and/or test procedures that may be injurious to health if adequate precautions are not taken. It refers only to technical suitability and in no way absolves either the supplier or the user from statutory obligations relating to health and safety at any stage of manufacture or use.

Terminology and conventions. The text of the CECC specification has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used throughout as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Cross-references. The British Standard which implements CECC 00007, CECC 00009, CECC 00107, CECC 00109, and CECC 00111 is BS 9000 “*General requirements for a system for electronic components of assessed quality*” Part 1 “*Specification of basic rules and rules of procedure*”.

International Standards	Corresponding British Standards
IEC 68	BS 2011 <i>Basic environmental testing procedures</i> (Most Parts are identical)
IEC 512	BS 5772 <i>Basic testing procedures and measuring methods for electromechanical components for electronic equipment</i> (Most Parts are identical)
IEC 695	BS 6458 <i>Fire hazard testing for electrotechnical products</i>
Part 2-1:1980	Section 2.1:1984 <i>Glow-wire test</i> (Identical)
Part 2-2:1980	Section 2.2:1984 <i>Needle-flame test</i> (Identical)
ISO 1000-1981	BS 5555:1981 <i>Specification for SI units and recommendations for the use of their multiples and of certain other units</i> (Identical)

IEC 117 has now been superseded by IEC 617 which is identical with BS 3939 “*Graphical symbols for electrical power, telecommunications and electronics diagrams*”.

The Technical Committee has reviewed the provisions of IEC 27, IEC 50 (581) 1978, IEC 65, IEC 341-1 1973, IEC 389-1 1972, IEC 389-1A 1976 and IEC 410, to which reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard.

IEC 65 is related to BS 415 “*Specification for safety requirements for mains-operated electronic and related apparatus for household and similar general use*”, and IEC 410 is related to BS 6001 “*Sampling procedures and tables for inspection by attributes*”.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, the CECC title page, pages ii to iv, pages 1 to 24, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

English version

Harmonized System of Quality Assessment for
Electronic Components

GENERIC SPECIFICATION:
**ELECTROMECHANICAL
SWITCHES**

Système Harmonisé d'Assurance de la Qualité
des Composants Electroniques

SPECIFICATION GNERIQUE:
**INTERRUPTEURS
ELECTROMECHANIQUES**

Harmonisiertes Gütebestätigungssystem für
Bauelemente der Elektronik

FACHGRUNDSPEZIFIKATION:
**ELEKTROMECHANISCHE
SCHALTER**



1 Edition
Issue
Ausgabe

CECC 96000

1985

AVA Documents
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Foreword

The CENELEC Electronic Components Committee (CECC) is composed of those member countries of the European Committee for Electrotechnical Standardization (CENELEC) who wish to take part in a harmonized System for electronic components of assessed quality.

The object of the System is to facilitate international trade by the harmonization of the specifications and quality assessment procedures for electronic components, and by the grant of an internationally recognized Mark, or Certificate, of Conformity. The components produced under the System are thereby accepted by all member countries without further testing.

This specification has been formally approved by the CECC and has been prepared for those countries taking part in the System who wish to issue national harmonized specifications for ELECTROMECHANICAL SWITCHES. It should be read in conjunction with the current Regulations for the CECC System.

At the date of printing of this document the member countries of the CECC are Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom, and copies of it can be obtained from the addresses shown on the blue fly sheet.

Preface

This generic specification was prepared by CECC WG 24 "*Switches*".

It is based, wherever possible, on the Publications of the International Electrotechnical Commission.

The text of this specification was circulated to the CECC for voting in the document listed below and was ratified by the President of the CECC for printing as a CECC specification:

Document	Date of Voting	Report on the Voting
CECC(Secretariat)1391	November 1983	CECC(Secretariat)1540

The numbering of clauses of this specification does not fully comply with CECC 00 400.

Section 1. Scope

1.1 Scope

This Generic Specification relates to electromechanical switches intended primarily for use in telecommunications equipment and in electronic equipment employing similar techniques. It is limited to switches with a rated voltage not exceeding 500 V (d.c. or a.c. r.m.s.) and a rated carrying current not exceeding 25 A. It specifies the terms, definitions, symbols, test methods and other material necessary to prepare detail specifications for these components in the CECC System.

1.2 Switch classes included

The following classes of switch are covered by this specification, together with their sub-classes.

Class	Examples of sub-class
Lever (toggle)	Rocker Joystick
Rotary	Thumbwheel (edge-mounted) Key activated
Sensitive (microswitch)	
Push-button	Multicell Matrix Piano-key Keyboard Keypad
Slide	
Non-mechanically activated	Temperature Pressure

NOTE 1 The principal classes of switch listed have been classified according to mode of actuation; classification by other features is permitted: for example, dual-in-line mounting.

NOTE 2 Each class of switch, inclusive of its sub-classes, is covered by one BDS.

NOTE 3 All classes of switch may have further sub-classification according to other features relating, for example, to direct or indirect actuation, the provision of illumination or indication, time delay, mounting facilities, and method of termination. The detail specification shall clearly indicate such features.

1.3 Switch classes excluded

The following classes of switch are not covered by this specification:

- relays;
- circuit breakers;
- optically activated switches;
- solid-state switches which are wholly electronic with no integral moving parts (for example touch-sensitive and proximity devices);
- waveguide switches;
- coaxial switches.

Section 2. General

2.1 Related documents

CECC-00-007	<i>Basic specification: Sampling plans and procedures for inspection by attributes</i>
CECC-00-009	<i>Basic specification: Basic testing procedures and measuring methods for electromechanical components</i>
CECC-00-107	<i>Quality Assessment Procedures</i>
CECC-00-109	<i>Certified Test Records</i>
CECC-00-111	<i>Specifications and their Harmonization</i>