## CONTENTS

1 Scope .......................................................................................................................... 7
2 Normative references .................................................................................................. 7
3 Terms and definitions ................................................................................................. 9
4 Test and measurement procedures ............................................................................ 18
   4.1 General .................................................................................................................. 18
   4.2 Deviations ............................................................................................................. 18
   4.3 Precision of measurement .................................................................................... 18
   4.4 Power supplies ..................................................................................................... 18
   4.5 Reference conditions for testing ......................................................................... 19
   4.6 Visual inspection and check of dimensions ......................................................... 20
   4.7 Mechanical tests and weighing ........................................................................... 20
   4.8 Relay coil properties ......................................................................................... 21
   4.9 Dielectric strength test ....................................................................................... 25
   4.10 Impulse voltage test ........................................................................................... 26
   4.11 Insulation resistance ......................................................................................... 27
   4.12 Contact-circuit resistance (or voltage drop) ..................................................... 28
   4.13 Functional tests ................................................................................................ 29
   4.14 Timing tests ......................................................................................................... 35
   4.15 Climatic tests/sequence ..................................................................................... 38
   4.16 Damp heat, steady state .................................................................................... 40
   4.17 Thermal resistance of the coil ........................................................................... 41
   4.18 Heating ................................................................................................................ 42
   4.19 Rapid change of temperature ............................................................................ 44
   4.20 Enclosure ............................................................................................................. 44
   4.21 Internal moisture ............................................................................................... 46
   4.22 Corrosive atmospheres ..................................................................................... 46
   4.23 Mould growth .................................................................................................... 47
   4.24 Robustness of terminals .................................................................................... 48
   4.25 Soldering .............................................................................................................. 48
   4.26 Shock .................................................................................................................... 49
   4.27 Bump .................................................................................................................... 50
   4.28 Vibration ............................................................................................................. 51
   4.29 Acceleration ........................................................................................................ 52
   4.30 Electrical endurance ........................................................................................... 53
   4.31 Mechanical endurance ........................................................................................ 56
   4.32 Thermal endurance ............................................................................................ 56
   4.33 Limiting continuous current ............................................................................. 57
   4.34 Overload (contact circuit) .................................................................................. 57
   4.35 Load transfer ....................................................................................................... 58
   4.36 Electromagnetic compatibility .......................................................................... 59
   4.37 Magnetic interference ........................................................................................ 60
   4.38 Crosstalk and insertion loss .............................................................................. 61
   4.39 Electrical contact noise ..................................................................................... 61
4.40 Thermoelectric e.m.f .................................................................62
4.41 Capacitance ...........................................................................62
4.42 Contact sticking (delayed release) ..........................................63
4.43 Magnetic remanence .............................................................63
4.44 Acoustic noise .......................................................................65
4.45 Continuity of protective earth connection ................................66
4.46 Fluid contamination ...............................................................66
4.47 Resistance to cleaning solvents ..............................................67
4.48 Fire hazard ............................................................................68
4.49 Temperature rise at rated load ..............................................68
4.50 Mechanical interlock .............................................................69
4.51 Insertion and withdrawal force (mating relay and socket) ....69

Annex A (normative) Heating test arrangement ................................71
Annex B (normative) Fire hazard testing ........................................72
Annex C (normative) Test circuit for endurance tests .....................77
Annex D (informative) Inductive contact loads ..............................84

Bibliography ..................................................................................86

Figure 1 – Typical circuit for the measurement of coil transient suppression .............................23
Figure 2 – Typical traces on an oscilloscope screen during transient voltage measurement ..........24
Figure 3 – Monostable non-polarized relay .................................................................................30
Figure 4 – Monostable relay polarized by diode ..........................................................................31
Figure 5 – Monostable polarized relay with magnetic biasing .......................................................32
Figure 6 – Bistable non-polarized relay (not applicable to remanence relays) ...............................33
Figure 7 – Bistable polarized relay (example) .............................................................................34
Figure 8 – Typical circuit for the measurement of time parameters ..........................................36
Figure 9 – Typical traces on an oscilloscope screen during time measurements .........................37
Figure 10 – Test circuit for load transfer ......................................................................................59
Figure 11 – Mounting array for adjacent similar relays .................................................................60
Figure 12 – Directions of the test current for magnetic interference test, method 3 .....................61
Figure 13 – Sequential diagram for magnetic remanence test ....................................................64
Figure 14 – Installation for the test for acoustic noise emission ..................................................65
Figure A.1 – Test arrangement ...................................................................................................71
Figure B.1 – Glow-wire and position of the thermocouple ...........................................................73
Figure B.2 – Glow-wire test apparatus (example) .......................................................................74
Figure B.3 – Needle flame test details .......................................................................................76
Figure C.1 – Standard test circuit ...............................................................................................77
Figure C.2 – Functional block diagram .....................................................................................78
Figure C.3 – Circuit for cable load ..............................................................................................80
Figure C.4 – Test circuit for inrush current loads (for example capacitive loads and simulated tungsten filament lamp loads) – a.c. circuits ..................................................81
Figure C.5 – Example for a tungsten filament lamp test for relays rated 10/100 A/250 V~/
2,5 ms .........................................................................................................................82
Figure C.6 – Test circuit for inrush current loads (for example capacitive loads and
simulated lamp loads) – d.c. circuits..................................................................................82
Figure C.7 – Test circuit for inrush current loads (for example simulated fluorescent
lamp loads) with power-factor correction...........................................................................83
Table 1 – Coil voltage values and corresponding functions ....................................................29
Table 2 – Cross-sectional areas and lengths of conductors dependent on the current
carried by the terminal........................................................................................................43
Table 3 – Schematics for contact loading ............................................................................55
Table 4 – Test fluids and temperatures of tests ...................................................................67
Table C.1 – Characteristics of power sources for contact loads..............................................78
Table C.2 – Standard contact load characteristics .................................................................79
Table D.1 – Verification of the making and breaking capacity for AC-15/DC-13 (normal
conditions) ......................................................................................................................84
Table D.2 – Making and breaking capacity for electrical endurance test .................................85
FOREWORD

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International Standard IEC 61810-7 has been prepared by IEC technical committee 94: All-or-nothing electrical relays.

This second edition cancels and replaces the first edition published in 1997. This second edition constitutes a technical revision.

This new edition has been revised in order to

- update all normative references,
- adapt its contents to the newest issues of the other parts of this series of basic relay standards (IEC 61810-1 and IEC 61810-2),
- establish coherence with other IEC standards (for example of the IEC 60068-2 series),
- improve test and measurement procedures where appropriate,
- delete those tests no longer used in case of elementary relays for industrial application.
The text of this standard is based on the following documents:

<table>
<thead>
<tr>
<th>FDIS</th>
<th>Report on voting</th>
</tr>
</thead>
<tbody>
<tr>
<td>94/226/FDIS</td>
<td>94/231/RVD</td>
</tr>
</tbody>
</table>

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

IEC 61810 consists of the following parts, under the general title *Electromechanical elementary relays*:

Part 1: General and safety requirements
Part 2: Reliability
Part 7: Test and measurement procedures

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

• reconfirmed;
• withdrawn;
• replaced by a revised edition, or
• amended.

A bilingual version of this publication may be issued at a later date.
1 Scope

This part of IEC 61810 states the test and measurement procedures for electromechanical elementary relays. It covers basic considerations which are, in general, common to all types of electromechanical elementary relays. Supplementary requirements may be necessitated by specific designs or application.

The test and measurement procedures of this standard are described as individual provisions covering a specific requirement. When combining them in a test programme, care must be taken (for example by suitable grouping of tested relays) to ensure that preceding tests do not devalue subsequent ones.

Where in this standard the term “specified” is used, this means a prescription in the appropriate documentation for the relay, for example manufacturer’s data sheet, test specification, customer detail specification. For application within the IECQ system such prescriptions are contained in the detail specification as defined in Clause A.7 of QC 001001.

NOTE 1 To improve the readability of this standard, the term “relay” is generally used in place of “electromechanical elementary relay”.

NOTE 2 Requirements and tests related to the type testing of electromechanical elementary relays are contained in IEC 61810-1. For that purpose, the generally described test and measurement procedures of this standard have been prescribed in a more restricted and stringent form in IEC 61810-1.

NOTE 3 Standards covering relays subjected to quality assessment in accordance with IECQ are compiled in the IEC 61811 series of publications.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

Amendment 1 (1993)
Amendment 2 (1994)

Amendment 1 (1993)
Amendment 2 (1994)


Amendment 1 (1986)


IEC 60068-2-64:1993, Environmental testing – Part 2: Test methods – Test Fh: Vibration, broad-band random (digital control) and guidance


IEC 60512-7: 1993, Electromechanical components for electronic equipment; basic testing procedures and measuring methods – Part 7: Mechanical operating tests and sealing tests

IEC 60695-2 (all parts), Fire hazard testing – Part 2: Test methods


IEC 60999-1:1999, Connecting devices – Electrical copper conductors – Safety requirements for screw-type and screwless-type clamping units – Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm² up to 35 mm² (included)

IEC 61210:1993, Connecting devices – Flat quick-connect terminations for electric copper conductors – Safety requirements

IEC 61180-1:1992, High-voltage test techniques for low-voltage equipment – Part 1: Definitions, test and procedure requirements


IEC 61810-1:2004, Electromechanical elementary relays – Part 1: General and safety requirements

IECQ QC 001001:2000, IEC Quality Assessment System for Electronic Components (IECQ) – Basic Rules