SLOVENSKI STANDARD
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SIST EN 61811-53:2003
SIST EN 61811-54:2003
SIST EN 61811-55:2003

Elektromehanski telekomunikacijski stikalni releji ocenjene kakovosti - 1. del: Rodovna specifikacija in okvirna podrobna specifikacija

Electromechanical all-or-nothing telecom relays of assessed quality - Part 1: Generic specification and blank detail specification

Elektromechanische Telekom-Schaltrelais -- Teil 1: Fachgrundspezifikation und Bauartspezifikation

Relais télécom électromécaniques élémentaires soumis au régime d'assurance qualité - Partie 1: Spécification générique et spécification particulière cadre

Ta slovenski standard je istoveten z: **EN 61811-1:2015**

ICS:

29.120.70 Releji Relays

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EUROPEAN STANDARD

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English Version

Electromechanical telecom elementary relays of assessed quality - Part 1: Generic specification and blank detail specification (IEC 61811-1:2015)

Relais télécom électromécaniques élémentaires soumis au régime d'assurance qualité - Partie 1: Spécification générique et spécification particulière cadre (IEC 61811-1:2015)

Elektromechanische Telekom-Elementarrelais mit bewerteter Qualität - Teil 1: Fachgrundspezifikation und Bauartspezifikation (IEC 61811-1:2015)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Ref. No. EN 61811-1:2015 E

Foreword

The text of document 94/379/FDIS, future edition 2 of IEC 61811-1, prepared by IEC/TC 94 "All-ornothing electrical relays" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61811-1:2015.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2015-12-04
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2018-03-04

This document supersedes EN 61811-1:1999, EN 61811-10:2003, EN 61811-11:2003, EN 61811-50:2002, EN 61811-51:2002, EN 61811-52:2002, EN 61811-53:2002, EN 61811-54:2002 and EN 61811-55:2002.

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Endorsement notice

The text of the International Standard IEC 61811-1:2015 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-47:2005	NOTE	Harmonized as EN 60068-2-47:2005 (not modified).
IEC 61649	NOTE	Harmonized as EN 61649.
IEC 61709:2011	NOTE	Harmonized as EN 61709:2011 (not modified).
ISO 9001:2008	NOTE	Harmonized as EN ISO 9001:2008 (not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

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

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu

Publication	Year	Title	EN/HD	Year
IEC 60062	2004	Marking codes for resistors and capacitors	EN 60062 + corr. January	2005 2007
IEC 60068-1	2013	Environmental testing - Part 1: General and guidance	EN 60068-1	2014
IEC 60068-2-17	1994	Basic environmental testing procedures - Part 2: Tests - Test Q: Sealing	EN 60068-2-17	1994
IEC 60068-2-20	2008	Environmental testing - Part 2-20: Tests - Test T: Test methods for solderability and resistance to soldering heat of devices with leads	EN 60068-2-20	2008
IEC 60068-2-58	2004	Environmental testing - Part 2-58: Tests - Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)	EN 60068-2-58 + corr. December	2004 2004
IEC 60410	1973	Sampling plans and procedures for inspection by attributes	-	-
IEC 60695-11-5	2004	Fire hazard testing - Part 11-5: Test flames - Needle-flame test method - Apparatus, confirmatory test arrangement and guidance	EN 60695-11-5	2005
IEC 61810	Series	Electromechanical elementary relays	EN 61810	Series
IEC 61810-1	2008 [1)]	Electromechanical elementary relays - Part 1: General requirements	EN 61810-1	2008
IEC 61810-2	2011	Electromechanical elementary relays - Part 2: Reliability	EN 61810-2	2011
IEC 61810-7	2006	Electromechanical elementary relays - Part 7: Test and measurement procedures	EN 61810-7	2006
ISO 2859	Series	Sampling procedures for inspection by attributes	-	

[1)] Superseded by IEC 61810-1:2015.

IEC 61811-1

Edition 2.0 2015-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Electromechanical telecom elementary relays of assessed quality – Part 1: Generic specification and blank detail specification

Relais télécom électromécaniques élémentaires soumis au régime d'assurance qualité – Partie 1: Spécification générique et spécification particulière cadre

INTERNATIONAL ELECTROTECHNICAL COMMISSION

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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ELECTROMECHANICAL TELECOM ELEMENTARY RELAYS OF ASSESSED QUALITY –

Part 1: Generic specification and blank detail specification

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 61811-1 has been prepared by IEC technical committee 94: All-or-nothing electrical relays.

This second edition of IEC 61811-1 cancels and replaces

- IEC 61811-1 published in 1999,
- IEC 61811-10 published in 2002,
- IEC 61811-11 published in 2002,
- IEC 61811-50 published in 2002,
- IEC 61811-51 published in 2002,
- IEC 61811-52 published in 2002,
- IEC 61811-53 published in 2002,
- IEC 61811-54 published in 2002,

- IEC 61811-55 published in 2002,

and constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous editions:

a) to get one document for telecom relays;

b) update all relevant references;

The text of this standard is based on the following documents:

FDIS	Report on voting
94/379/FDIS	94/383/RVD

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

A list of all parts in the IEC 61811 series, published under the general title *Electromechanical telecom elementary relays of assessed quality*, can be found on the IEC website.

Future standards in this series will carry the new general title as cited above. Titles of existing standards in this series will be updated at the time of the next edition.

This publication was drafted in accordance with ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website 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.

ELECTROMECHANICAL TELECOM ELEMENTARY RELAYS OF ASSESSED QUALITY –

Part 1: Generic specification and blank detail specification

1 Scope

This part of IEC 61811 applies to electromechanical telecom elementary relays. Relays according to this standard are provided for the operation in telecommunication applications. However, as electromechanical elementary relays, they are also suitable for particular industrial and other applications.

This standard selects from IEC 61810 series and other sources the appropriate methods of test to be used in detail specifications derived from this specification, and contains basic test schedules to be used in the preparation of such specifications in accordance with this standard.

Detailed test schedules are contained in the detail specifications.

2 Normative references

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

IEC 60062:2004, *Marking codes for resistors and capacitors*

IEC 60068-1:2013, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-17:1994, *Basic environmental testing procedures – Part 2-17: Tests – Test Q: Sealing*

IEC 60068-2-20:2008, *Environmental testing – Part 2-20: Tests – Test T: Test methods for solderability and resistance to soldering heat of devices with leads*

IEC 60068-2-58:2004, *Environmental testing – Part 2-58: Tests – Test Td: Test methods for solderability, resistance to dissolution of metallization and to soldering heat of surface mounting devices (SMD)*

IEC 60410:1973, *Sampling plans and procedures for inspection by attributes*

IEC 60695-11-5:2004, *Fire hazard testing – Test flames – Needle-flame test method – Apparatus, confirmatory test arrangement and guidance*

IEC 61810 (all parts), *Electromechanical elementary relays*

IEC 61810-1:2008, *Electromechanical elementary relays – Part 1: General requirements*

IEC 61810-2:2011, *Electromechanical elementary relays – Part 2: Reliability*

IEC 61810-7:2006, *Electromechanical elementary relays – Part 7: Test and measurement procedures*

ISO 2859 (all parts), *Sampling procedures for inspection by attributes*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 61810 series, as well as the following apply.

3.1 Type of relays

The most frequent types of electromechanical telecom elementary relays are defined in 3.1.1, 3.1.2, 3.1.3 and 3.1.4.

3.1.1
bistable relay
electrical relay which, having responded to an energizing quantity and having changed its condition, remains in that condition after the quantity has been removed; a further appropriate energization is required to make it change its condition.

[SOURCE:IEC 60050-444:2002, 444-01-08]

3.1.2
monostable relay
electrical relay which, having responded to an energizing quantity and having changed its condition, returns to its previous condition when that quantity is removed

[SOURCE: IEC 60050-444:2002, 444-01-07]

3.1.3
non-polarized relay
electrical relay, the change of condition of which does not depend upon the polarity of its energizing quantity

[SOURCE: IEC 60050-444:2002, 444-01-10]

3.1.4
polarized relay
polarized elementary relay
electrical relay, the change of condition of which depends upon the polarity of its d.c. energizing quantity

[SOURCE: IEC 60050-444:2002, 444-01-09; modified – In the definition, "elementary relay" has been replaced by "electrical relay".]

3.2 Types of contacts

3.2.1
change-over break-before-make contact
change-over contact, one contact circuit of which breaks before the other makes

[SOURCE: IEC 60050-444:2002,444-04-21, modified – The definition has been reworded.]

3.2.2
change-over make-before-break contact
change-over contact, one contact circuit of which makes before the other breaks

[SOURCE: IEC 60050-444:2002, 444-04-20, modified – The definition has been reworded.]

3.3 Contact fault and contact failure

3.3.1
failure to make
failure caused when no sufficient contact is ensured

Note 1 to entry: This could be a not acceptable or excessive contact resistance exceeds the maximum value stated in the detail specification as well a bouncing of the contact due to the lost of overtravel.

3.3.2
failure to break
failure caused when the current flows although it should not

Note 1 to entry: For example, This could be a contact welding/sticking as well as a delayed contact operate or release contact. Also, it is assumed that the contact does not open, when the resistance of an open contact assembly falls below the specified minimum value stated in the detail specification

3.3.3
malfunction
single event when an item does not perform a required function

3.3.4
contact failure
occurrence of break and/or make malfunctions of a contact under test, exceeding a specified number

3.4 Relay malfunction, relay failure

3.4.1
relay malfunction
the state of a relay characterized by the inability to perform a required function

Note 1 to entry: A fault persists for a limited time after which the relay recovers the ability to perform a required function without being subjected to any corrective maintenance.

3.4.2
failure
termination of the ability of an item to perform a required function

[SOURCE:IEC 60050-191:1990, 191-04-01]

3.5 Relay construction types

3.5.1
type 0
non-standardized types and construction

3.5.2
type 1
two change-over contacts, 20 mm × 10 mm base

3.5.3
type 2
two change-over contacts, 14 mm × 9 mm base

3.5.4
type 3
two change-over contacts, 15 mm × 7,5 mm base