
Electromechanical all-or-nothing relays - Part 53: Blank detail specification -
Electromechanical all-or-nothing telecom relays of assessed quality - Two change-
over contacts, 14 mm x 9 mm base

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN 61811-53:2003
[https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-
a9293629bb9f/sist-en-61811-53-2003](https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a9293629bb9f/sist-en-61811-53-2003)

iTeh STANDARD PREVIEW **(standards.iteh.ai)**

SIST EN 61811-53:2003

<https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a9293629bb9f/sist-en-61811-53-2003>

English version

Electromechanical all-or-nothing relays
Part 53: Blank detail specification -
Electromechanical all-or-nothing telecom relays of assessed quality -
Two change-over contacts, 14 mm x 9 mm base
(IEC 61811-53:2002)

Relais électromécaniques de tout-ou-rien
Partie 53: Spécification particulière cadre -
Relais électromécaniques de tout-ou-rien
télécom soumis au régime
d'assurance de la qualité -
Deux contacts à deux directions,
surface d'encombrement de 14 mm x 9 mm
(CEI 61811-53:2002)

Elektromechanische Schaltrelais
Teil 53: Vordruck für Bauartspezifikation -
Elektromechanische Telekom-Relais
mit bewerteter Qualität -
2 Wechsler, 14 mm x 9 mm Grundfläche
(IEC 61811-53:2002)

<https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a9293629bb9f/sist-en-61811-53-2003>

This European Standard was approved by CENELEC on 2002-05-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Foreword

The text of document 94/147/FDIS, future edition 2 of IEC 61811-53, prepared by IEC TC 94, All-or-nothing electrical relays, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61811-53 on 2002-05-01.

This European Standard supersedes EN 116503:1992 + A1:1995.

The following dates were fixed:

- latest date by which the EN has to be implemented
at national level by publication of an identical
national standard or by endorsement (dop) 2003-02-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2005-05-01

Annexes designated "normative" are part of the body of the standard.
In this standard, annex ZA is normative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61811-53:2002 was approved by CENELEC as a European Standard without any modification.

ITh STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 61811-53:2003
<https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a9293629bb9f/sist-en-61811-53-2003>

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-1 + corr. October + A1	1988 1988 1992	Environmental testing Part 1: General and guidance	EN 60068-1	1994
IEC 60068-2-17	1994	Part 2: Tests - Test Q: Sealing	EN 60068-2-17	1994
IEC 60068-2-20 + A2	1979 1987	Part 2: Tests - Test T: Soldering	HD 323.2.20 S3	1988
IEC 60068-2-47	1999	Part 2-47: Test methods - Mounting of components, equipment and other articles for vibration, impact and similar dynamic tests	EN 60068-2-47 + corr. June	1999 2000
IEC 60255-14	1981	Electrical relays Part 14: Endurance test for electrical relay contacts - Preferred values for contact loads	-	-
IEC 60695-2-2	1991	Fire hazard testing Part 2: Test methods - Section 2: Needle-flame test	EN 60695-2-2	1994
IEC 61709	1996	Electronic components - Reliability - Reference conditions for failure rates and stress models for conversion	EN 61709	1998
IEC 61810-7	1997	Electromechanical all-or-nothing relays Part 7: Test and measurement procedures	-	-
IEC 61811-1	1999	Electromechanical non-specified time all-or-nothing relays of assessed quality Part 1: Generic specification	EN 61811-1	1999
IEC 61811-50	2002	Part 50: Sectional specification - Electromechanical all-or-nothing telecom relays of assessed quality	EN 61811-50	2002

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC QC 001002-2	1998	Rules of Procedure of the IEC Quality Assessment System for Electronic Components (IECQ) Part 2: Documentation	-	-
IEC QC 001002-3	1998	Part 3: Approval procedures	-	-
IEC QC 001005	1996	Register of firms, products and services approved under the IECQ System including ISO 9000	-	-
CECC 00 802	1994	Guidance Document: CECC standard method for the specification of surface mounting components (SMDs) of assessed quality	-	-

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 61811-53:2003

<https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a9293629bb9f/sist-en-61811-53-2003>

INTERNATIONAL STANDARD

IEC 61811-53

QC 160503

Second edition
2002-03

Electromechanical all-or-nothing relays –

Part 53:

Blank detail specification –

Electromechanical all-or-nothing telecom

relays of assessed quality –
Two change-over contacts,
14 mm × 9 mm base

[SIST EN 61811-53:2003](https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a29362960713/iec-61811-53-2003)

<https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a29362960713/iec-61811-53-2003>
Relais électromécaniques de tout-ou-rien –

Partie 53:

Spécification particulière cadre –

Relais électromécaniques de tout-ou-rien télécom

soumis au régime d'assurance de la qualité –

Deux contacts à deux directions,

surface d'encombrement de 14 mm × 9 mm

© IEC 2002 — Copyright - all rights reserved

No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE

U

For price, see current catalogue

CONTENTS

FOREWORD.....	3
1 General	5
1.1 Scope.....	5
1.2 Normative references	5
1.3 Front page of the detail specification	7
2 Characteristic values of the relay.....	9
2.1 General data	9
2.2 Construction of IECQ type designation (ordering information).....	9
2.3 Coil data.....	10
2.4 Contact data.....	10
2.4.1 Electrical endurance and switching frequency.....	10
2.4.2 Static contact-circuit resistance	10
2.4.3 Mechanical endurance.....	10
2.4.4 Timing (without suppression device).....	11
2.5 Mounting	11
2.6 Environmental data	11
2.7 Package of relays for automatic handling (if applicable).....	11
3 Qualification approval procedures	12
4 Quality conformance inspection.....	12
4.1 Formation of inspection lots.....	12
4.2 Intervals between tests.....	12
5 Marking and documentation.....	12
5.1 Marking of the relay.....	12
5.2 Marking of the package	13
5.3 Documentation	13
6 Annexes	13
7 Tests	13
7.1 Standard conditions for testing	13
7.2 Mounting of test specimens during the test.....	13
7.3 General conditions for testing.....	13
8 Ordering information.....	13
9 Relay reliability – Failure rate data (optional).....	13
Table 1 – Dielectric test voltages	9
Table 2 – Coil data	10
Table 3 – Loads, contact-circuit resistance limits, switching cycles and frequencies for electrical endurance and overload tests	10
Table 4 – Quality conformance inspection.....	14-27
Table 5 – Qualification approval.....	28-30
Table 6 – Industrial qualification	30

INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTROMECHANICAL ALL-OR-NOTHING RELAYS –

**Part 53: Blank detail specification –
Electromechanical all-or-nothing telecom relays of assessed quality –
Two change-over contacts, 14 mm × 9 mm base**

FOREWORD

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the 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, the IEC publishes International Standards. 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. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61811-53 has been prepared by IEC technical committee 94: All-or-nothing electrical relays.

This second edition of IEC 61811-53 cancels and replaces the first edition published in 1997 and constitutes a technical revision.

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

FDIS	Report on voting
94/147/FDIS	94/161/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.

The QC number that appears on the front cover of this publication is the specification number in the IEC Quality Assessment System for Electronic Components (IECQ).

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

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

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 61811-53:2003

<https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a9293629bb9f/sist-en-61811-53-2003>

ELECTROMECHANICAL ALL-OR-NOTHING RELAYS –

Part 53: Blank detail specification – Electromechanical all-or-nothing telecom relays of assessed quality – Two change-over contacts, 14 mm × 9 mm base

1 General

1.1 Scope

This part of IEC 61811 is a blank detail specification applicable to electromechanical all-or-nothing telecom relays of assessed quality. Relays according to this standard are provided for operation in telecommunication applications. However, as electromechanical all-or-nothing relays, they are also suitable for particular industrial and other applications.

This standard selects from IEC 61810-7 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 IEC 61811-1.

1.2 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.

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*,
Amendment 1 (1992)

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

IEC 60068-2-20:1979, *Environmental testing – Part 2: Tests: Test T – Soldering*
Amendment 2 (1987)

IEC 60068-2-47:1999, *Environmental testing – Part 2-47: Test methods – Mounting of components, equipment and other articles for vibration, impact and similar dynamic tests*

IEC 60255-14:1981, *Electrical relays – Part 14: Endurance test for electrical relay contacts – Preferred values for contact loads*

IEC 60695-2-2:1991, *Fire hazard testing – Part 2: Test methods – Section 2 – Needle-flame test*

IEC 61709:1996, *Electronic components – Reliability – Reference conditions for failure rates and stress models for conversion*

IEC 61810-7:1997, *Electromechanical all-or-nothing relays – Part 7: Test and measurement procedures*

IEC 61811-1:1999, *Electromechanical non-specified time all-or-nothing relays of assessed quality – Part 1: Generic specification*

IEC 61811-50:2002, *Electromechanical all-or-nothing relays – Part 50: Sectional specification – Electromechanical all-or-nothing telecom relays of assessed quality*

QC 001002-2:1998, *Rules of Procedure of the IEC Quality Assessment System for Electronic Components (IECQ) – Part 2: Documentation*

QC 001002-3:1998, *Rules of Procedure of the IEC Quality Assessment System for Electronic Components (IECQ) – Part 3: Approval procedures*

QC 001005:1996, *Register of Firms, Products and Services approved under the IECQ System, including ISO 9000*

CECC 00802:1990, *Guidance document: CECC Standard Method for the Specification of Surface Mounting Components (SMDs) of Assessed Quality*

(National authorized institutions will complete this clause by making reference to any documents or specifications directly referred to in their national equivalent of this standard.)

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN 61811-53:2003

<https://standards.iteh.ai/catalog/standards/sist/d71e0ec8-172c-43ad-b442-a9293629bb9f/sist-en-61811-53-2003>