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STN	**Jazýčkové spínače. Časť 1: Kmeňová špecifikácia.**	**STN EN 62246-1** 35 3460

Reed switches - Part 1: Generic specification

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 08/15

Obsahuje: EN 62246-1:2015, IEC 62246-1:2015

Oznámením tejto normy sa od 04.03.2018 ruší
STN EN 62246-1 (35 3460) z októbra 2011

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62246-1

March 2015

ICS 29.120.70

Supersedes EN 62246-1:2011

English Version

Reed switches - Part 1: Generic specification (IEC 62246-1:2015)

Contacts à lames souples - Partie 1: Spécification générique (IEC 62246-1:2015)

Reedschalter - Teil 1: Fachgrundspezifikation (IEC 62246-1:2015)

This European Standard was approved by CENELEC on 2015-03-04. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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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 62246-1:2015 E

Foreword

The text of document 94/377/FDIS, future edition 3 of IEC 62246-1, prepared by IEC TC 94 "All-or-nothing electrical relays" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62246-1:2015.

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- latest date by which the national standards conflicting with the document have to be withdrawn (dow) 2018-03-04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 62246-1:2011.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 62246-1:2015 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 60027 (series)	NOTE	Harmonized as EN 60027 (series).
IEC 61000-4-5:2014	NOTE	Harmonized as EN 61000-4-5:2014.
IEC 61810-1:2008	NOTE	Harmonized as EN 61810-1:2008.
IEC 61810-2	NOTE	Harmonized as EN 61810-2.
IEC 62246-1-1:2013	NOTE	Harmonized as EN 62246-1-1:2013.
IEC 61811-1	NOTE	Harmonized as EN 61811-1.

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 60068-1	2013	Environmental testing -- Part 1: General and guidance	EN 60068-1	2014
IEC 60068-2-1	2007	Environmental testing -- Part 2-1: Tests - Test A: Cold	EN 60068-2-1	2007
IEC 60068-2-2	2007	Environmental testing -- Part 2-2: Tests - Test B: Dry heat	EN 60068-2-2	2007
IEC 60068-2-6	2007	Environmental testing -- Part 2-6: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	2008
IEC 60068-2-7	1983	Basic environmental testing procedures - Part 2-7: Tests - Test Ga and guidance: Acceleration, steady state	EN 60068-2-7	1993
IEC 60068-2-11	1981	Environmental testing -- Part 2: Tests - Test Ka: Salt mist	EN 60068-2-11	1999
IEC 60068-2-13	1983	Environmental testing -- Part 2: Tests - Test M: Low air pressure	EN 60068-2-13	1999
IEC 60068-2-14	2009	Environmental testing -- Part 2-14: Tests - Test N: Change of temperature	EN 60068-2-14	2009
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 60068-2-21	2006	Environmental testing -- Part 2-21: Tests - Test U: Robustness of terminations and integral mounting devices	EN 60068-2-21	2006
IEC 60068-2-27	2008	Environmental testing -- Part 2-27: Tests - Test Ea and guidance: Shock	EN 60068-2-27	2009
IEC 60068-2-30	2005	Environmental testing -- Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle)	EN 60068-2-30	2005
IEC 60068-2-78	-	Environmental testing -- Part 2-78: Tests - Test Cab: Damp heat, steady state	EN 60068-2-78	-
IEC 60096	series	Radio-frequency cables	-	series
IEC 60947-5-1	2003	Low-voltage switchgear and controlgear -- Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices	EN 60947-5-1	2004
-	-		+corrigendum Nov.	2004
-	-		+corrigendum Jul.	2005

IEC 62246-1

Edition 3.0 2015-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Reed switches – Part 1: Generic specification

Contacts à lames souples – Partie 1: Spécification générique

IEC 62246-1:2015-01(en-fr)

IEC 62246-1

Edition 3.0 2015-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Reed switches –
Part 1: Generic specification

Contacts à lames souples –
Partie 1: Spécification générique

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

REED SWITCHES –

Part 1: Generic 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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8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
9) Attention is drawn to the possibility that some of the elements of this IEC Publication may be the subject of patent rights. IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 62246-1 has been prepared by IEC technical committee 94: All-or-nothing electrical relays.

This standard cancels and replaces the second edition of IEC 62246-1 published in 2011. It constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

– inclusion of Introduction (same as in IEC 62246-1-1:2013);
– update of the scope, the terms and definitions, the rated values and the test and measurement procedure;
– improvement of dielectric test, electrical endurance tests covering maximum electrical endurance test and overload test;
– improvement of Table F.1 for electrical ratings based on classification;

– inclusion of new Table G.1 for horsepower ratings based on classification.

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

FDIS	Report on voting
94/377/FDIS	94/381/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.

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

A list of all parts of the IEC 62246 series can be found, under the general title *Reed Switches*, on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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.

IMPORTANT – The 'colour inside' logo on the cover page of this publication indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.

INTRODUCTION

Reed switches which are in mass production and which are widely used in practice could be classified by the following characteristics:

a) Size:
   - normal or standard reed switches with a tube more than 50 mm in length and more than 5 mm in diameter;
   - sub-miniature reed switches with a tube > 25 mm and < 50 mm in length and < 5 mm in diameter;
   - miniature reed switches with a tube > 10 mm and < 25 mm in length and > 2 mm and < 5 mm in diameter;
   - micro-miniature reed switches with a tube > 4 mm and < 10 mm in length and > 1,5 mm and < 2 mm in diameter.

b) Type of switching of electric circuit:
   - closing or normally open – A type;
   - opening or normally closed – B type;
   - changeover – C type.

c) Withstand voltage level:
   - low-voltage (up to 1 000 V);
   - high-voltage (more than 1 000 V).

d) Switches power:
   - low-power (up to 60 VA);
   - power (100 to 1 000 VA);
   - high-power (more than 1 000 VA).

e) Types of electric contacts:
   - the tube is filled with dry air, gas mixture, vacuumized, or high pressurized.

This standard selects and specifies test procedures for reed switches where enhanced requirements for the verification of generic specification apply.

An international standard IEC 62246-1-1 (a quality assessment specification including information of detail specification (DS)) was published in 2013.

REED SWITCHES –

Part 1: Generic specification

1 Scope

This part of IEC 62246 which is a generic specification applies to all types of reed switches including magnetically biased reed switches of assessed quality for use in general and industrial applications.

NOTE 1 Mercury wetted reed switches are not covered by this standard due to their possible environmental impact.

It lists the tests and measurement procedures which may be selected for use in detail specifications for such reed switches.

This standard applies to reed switches which are operated by an applied magnetic field; it is not restricted to any particular type of contact load.

For elementary relays with reed switches, this standard is recommended to be used together with the standards IEC 61810-1, IEC 61811-1 as applicable.

For applications of reed switches, this standard is recommended to be used together with specific product standards.

NOTE 2 Where any discrepancies occur for any reasons, documents rank in the following order of authority:

a) the detail specification,

b) the sectional specification,

c) the generic specification,

d) any other international documents (for example, of the IEC) to which reference is made.

The same order of precedence applies to equivalent national documents.

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

IEC 60068-2-1:2007, *Environmental testing – Part 2-1: Tests – Test A: Cold*

IEC 60068-2-2:2007, *Environmental testing – Part 2-2: Tests – Test B: Dry heat*

IEC 60068-2-6:2007, *Environmental testing – Part 2-6: Tests – Test Fc: Vibration (sinusoidal)*

IEC 60068-2-7:1983, *Basic environmental testing procedures – Part 2-7: Tests – Test Ga and guidance: Acceleration, steady state*

IEC 60068-2-11:1981, *Basic environmental testing procedures – Part 2-11: Tests – Test Ka: Salt mist*

IEC 60068-2-13:1983, *Basic environmental testing procedures – Part 2-13: Tests – Test M: Low air pressure*

IEC 60068-2-14:2009, *Environmental testing – Part 2-14: Tests – Test N: Change of temperature*

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 60068-2-21:2006, *Environmental testing – Part 2-21: Tests – Test U: Robustness of terminations and integral mounting devices*

IEC 60068-2-27:2008, *Environmental testing – Part 2-27: Tests – Test Ea and guidance: Shock*

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IEC 60068-2-78, *Basic environmental testing procedures – Part 2: Tests – Test Cab: Damp heat, steady state*

IEC 60096 (all parts), *Radio frequency cables*

IEC 60947-5-1:2003, *Low-voltage switchgear and controlgear – Part 5-1: Control circuit devices and switching elements – Electromechanical control circuit devices*