

**SLOVENSKI**  
**STANDARD**

**SIST EN 60947-5-  
2:2000/A2:2004**

junij 2004

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Low-voltage switchgear and controlgear - Part 5-2: Control circuit devices and switching elements - Proximity switches

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[SIST EN 60947-5-2:2000/A2:2004](https://standards.iteh.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004)  
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ICS 29.130.20

Referenčna številka  
SIST EN 60947-5-2:2000/A2:2004(en)

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SIST EN 60947-5-2:2000/A2:2004

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EUROPEAN STANDARD

**EN 60947-5-2/A2**

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 2004

ICS 29.120.40; 29.130.20

English version

**Low-voltage switchgear and controlgear**  
**Part 5-2: Control circuit devices and switching elements -**  
**Proximity switches**  
(IEC 60947-5-2:1997/A2:2003)

Appareillage à basse tension  
Partie 5-2: Appareils et éléments  
de commutation pour circuits  
de commande -  
DéTECTEURS DE PROXIMITÉ  
(CEI 60947-5-2:1997/A2:2003)

Niederspannungsschaltgeräte  
Teil 5-2: Steuergeräte  
und Schaltelemente -  
NäHERUNGSSCHALTER  
(IEC 60947-5-2:1997/A2:2003)

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[SIST EN 60947-5-2:2000/A2:2004](https://standards.iteh.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004)

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This amendment A2 modifies the European Standard EN 60947-5-2:1998; it was approved by CENELEC on 2004-02-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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 17B/1298/FDIS, future amendment 2 to IEC 60947-5-2:1997, prepared by SC 17B, Low-voltage switchgear and controlgear, of IEC TC 17, Switchgear and controlgear, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A2 to EN 60947-5-2:1998 on 2004-02-01.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2004-11-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2007-02-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of amendment 2:2003 to the International Standard IEC 60947-5-2:1997 was approved by CENELEC as an amendment to the European Standard without any modification.

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<https://standards.iteh.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004>

Replace Annex ZA of EN 60947-5-2:1998 by:

**Annex ZA**  
(normative)

**Normative references to international publications  
with their corresponding European publications**

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.

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 60050-441	1984	International Electrotechnical Vocabulary (IEV) Chapter 441: Switchgear, controlgear and fuses	-	-
A1	2000		-	-
IEC 60068-2-6 + corr. March	1995 1995	Environmental testing Part 2: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995
IEC 60068-2-14 + A1	1984 1986	Part 2: Tests - Test N: Change of temperature	EN 60068-2-14	1999
IEC 60068-2-27	1987	Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993
IEC 60068-2-30 + A1	1980 1985	Part 2: Tests - Test Db and guidance: Damp heat, cyclic (12 + 12 hour cycle)	EN 60068-2-30	1999
IEC 60364 (mod)	Series	Electrical installations of buildings	HD 384	Series
IEC 60446	1999	Basic and safety principles for man-machine interface, marking and identification - Identification of conductors by colours or numerals	EN 60446	1999
IEC 60947-1 (mod)	1999	Low-voltage switchgear and controlgear Part 1: General rules	EN 60947-1 + corr. October	1999 1999
A1	2000		A1	2000
A2	2001		A2	2001
IEC 60947-5-1	1997	Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices	EN 60947-5-1 + A12	1997 1999
A1	1999		A1	1999
A2	1999		A2	2000

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61000-3-2 (mod)	2000	Electromagnetic compatibility (EMC) Part 3-2: Limits - Limits for harmonic current emissions (equipment input current up to and including 16 A per phase)	EN 61000-3-2	2000
A1	2001		-	-
IEC 61000-3-3	1994	Part 3-3: Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection	EN 61000-3-3 + corr. July	1995 1997
A1	2001		A1	2001
IEC 61000-4-2	1995	Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2	1995
A1	1998		A1	1998
A2	2000		A2	2001
IEC 61000-4-3	2002	Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3	2002
A1	2002		A1	2002
IEC 61000-4-4	1995	Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4	1995
A1	2000		A1	2001
A2	2001		A2	2001
IEC 61000-4-5	1995	Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	1995
A1	2000		A1	2001
IEC 61000-4-6	1996	Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio- frequency fields	EN 61000-4-6	1996
A1	2000		A1	2001
IEC 61000-4-8	1993	Part 4-8: Testing and measurement techniques - Power frequency magnetic field immunity test	EN 61000-4-8	1993
A1	2000		A1	2001
IEC 61000-4-11	1994	Part 4-11: Testing and measurement techniques - Voltage dips, short interruptions and voltage variations immunity tests	EN 61000-4-11	1994
A1	2000		A1	2001
IEC 61000-4-13	2002	Part 4-13: Testing and measurement techniques - Harmonics and interharmonics including mains signalling at a.c. power port, low frequency immunity tests	EN 61000-4-13	2002

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61020-5-1	1991	Electromechanical switches for use in electronic equipment Part 5: Sectional specification for pushbutton switches Section 1: Blank detail specification	-	-
IEC 61140	2001	Protection against electric shock - Common aspects for installation and equipment	EN 61140	2002
CISPR 11 (mod)	1997	Industrial, scientific and medical (ISM) radio-frequency equipment - Radio disturbance characteristics - Limits and methods of measurement	EN 55011	1998
A1	1999		A1	1999
ISO 630	1995	Structural steels - Plates, wide flats, bars, sections and profiles	-	-

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[SIST EN 60947-5-2:2000/A2:2004](https://standards.iteh.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004)

<https://standards.iteh.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004>

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC

60947-5-2

1997

AMENDEMENT 2  
AMENDMENT 2  
2003-11

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Amendement 2

**Appareillage à basse tension –**

**Partie 5-2:**

**Appareils et éléments de commutation  
pour circuits de commande –  
DéTECTEURS DE PROXIMITÉ**

[SIST EN 60947-5-2:2000/A2:2004](https://standards.itec.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004)

<https://standards.itec.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004>

Amendment 2

**Low-voltage switchgear and controlgear –**

**Part 5-2:**

**Control circuit devices and switching elements –  
Proximity switches**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

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*Pour prix, voir catalogue en vigueur  
For price, see current catalogue*

## FOREWORD

This amendment has been prepared by subcommittee 17B: Low-voltage switchgear and controlgear, of IEC technical committee 17: Switchgear and controlgear.

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

FDIS	Report on voting
17B/1298/FDIS	17B/1310/RVD

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

The committee has decided that the contents of the base publication and its amendments will remain unchanged until 2006. At this date, the publication will be:

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

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### 1.2 Normative references

Replace the text of the first paragraph by the following:

<https://standards.iteh.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004>

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.

Add, on page 11, after IEC 60050(441):1984, the following reference:

Amendment 1 (2000)

Add, after IEC 60068-2-14:1984, the following reference:

Amendment 1 (1986)

Add, after IEC 60068-2-30:1980, the following reference:

Amendment 1 (1985)

Replace the reference to IEC 60446:1989 by the following:

IEC 60446:1999, *Basic and safety principles for man-machine interface, marking and identification - Identification of conductors by colours or numerals*

Delete the reference to IEC 60536:1976

Replace the reference to IEC 60947-1:1996 by the following:

IEC 60947-1:1999, *Low-voltage switchgear and controlgear – Part 1: General rules*  
Amendment 1 (2000)  
Amendment 2 (2001)

Add, after IEC 60947-5-1:1997, the following references:

Amendment 1 (1999)  
Amendment 2 (1999)

Add the following new references:

IEC 61000-3-2:2000, *Electromagnetic compatibility (EMC) – Part 3-2: Limits – Limits for harmonic current emissions (equipment input current  $\leq 16$  A per phase)*  
Amendment 1 (2001)

IEC 61000-3-3:1994, *Electromagnetic compatibility (EMC) – Part 3: Limits – Section 3: Limitation of voltage fluctuations and flicker in low-voltage supply systems for equipment with rated current  $\leq 16$  A*  
Amendment 1 (2001)

SIST EN 60947-5-2:2000/A2:2004

Add, after IEC 61000-4-2:1995, the following references:  
<http://standards.iteh.ai/catalog/standards/sist/1c590f94-04cc-4eca-92f9-07b610e19a9d/sist-en-60947-5-2-2000-a2-2004>

Amendment 1 (1998)  
Amendment 2 (2000)

Replace the reference to IEC 61000-4-3:1995 by the following:

IEC 61000-4-3:2002, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test*  
Amendment 1 (2002)

Add, after IEC 61000-4-4:1995, the following references:

Amendment 1 (2000)  
Amendment 2 (2001)

Add the following new references:

IEC 61000-4-5:1995, *Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test*  
Amendment 1 (2000)