

**SLOVENSKI STANDARD
SIST EN 60730-2-15:2010****01-september-2010****Nadomešča:****SIST EN 60730-2-15:1997****SIST EN 60730-2-15:1997/A1:1998****SIST EN 60730-2-15:1997/A11:2005****SIST EN 60730-2-16:1998****SIST EN 60730-2-16:1998/A1:1999****SIST EN 60730-2-16:1998/A11:2005****SIST EN 60730-2-16:1998/A2:2002****SIST EN 60730-2-18:2000****SIST EN 60730-2-18:2000/A11:2005****iTeh STANDARD PREVIEW****(standards.iteh.ai)**

Avtomatske električne krmilne naprave za uporabo v gospodinjstvu in za podobno uporabo - 2-15. del: Posebne zahteve za avtomatska električna tipala, ki zaznavajo pretok zraka, pretok vode in vodni nivo (IEC 60730-2-15:2008, spremenjen)

Automatic electrical controls for household and similar use - Part 2-15: Particular requirements for automatic electrical air flow, water flow and water level sensing controls (IEC 60730-2-15:2008, modified)

Ta slovenski standard je istoveten z: EN 60730-2-15:2010

ICS:

97.120 Avtomatske krmilne naprave Automatic controls for
za dom za dom household use

SIST EN 60730-2-15:2010 en

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60730-2-15:2010](#)

<https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff6-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60730-2-15

March 2010

ICS 97.120

Supersedes EN 60730-2-15:1995 + A1:1998 + corr. Mar.2001 + A11:2005,
EN 60730-2-16:1997 + A1:1998 + A2:2001 + A11:2005, EN 60730-2-18:1999 + A11:2005

English version

**Automatic electrical controls for household and similar use -
Part 2-15: Particular requirements for automatic electrical air flow,
water flow and water level sensing controls**
(IEC 60730-2-15:2008, modified)

Dispositifs de commande électrique
automatiques à usage domestique
et analogue -
Partie 2-15: Exigences particulières
pour les dispositifs de commande
électrique automatiques détecteurs
de débit d'air, de débit d'eau
et de niveau d'eau
(CEI 60730-2-15:2008, modifiée)

Automatische elektrische
Regel- und Steuergeräte
für den Hausgebrauch
und ähnliche Anwendungen -
Teil 2-15: Besondere Anforderungen
für automatische elektrische
wasserstandsabhängige Regel- und
Steuergeräte in Schwimm- oder
Elektrodenfühler-Ausführung
für den Gebrauch in Wasserboilern
(IEC 60730-2-15:2008, modifiziert)

[SIST EN 60730-2-15:2010](https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff8-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010)

<https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff8-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010>

This European Standard was approved by CENELEC on 2010-03-01. 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, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

CENELEC

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

Central Secretariat: Avenue Marnix 17, B - 1000 Brussels

Foreword

The text of the International Standard IEC 60730-2-15:2008, prepared by IEC TC 72, Automatic controls for household use, together with the common modifications prepared by the Technical Committee CENELEC TC 72, Automatic controls for household use, was submitted to the CENELEC Unique Acceptance Procedure and was approved as EN 60730-2-15 on 2010-03-01.

This document supersedes EN 60730-2-15:1995 + A1:1998 + A11:2005, EN 60730-2-16:1997 + A1:1998 + A2:2001 + A11:2005 and EN 60730-2-18:1999 + A11:2005.

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) 2011-03-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2013-03-01

This Part 2-15 is to be used in conjunction with EN 60730-1:2000, *Automatic electrical controls for household and similar use – Part 1: General requirements*, and any subsequent amendments.

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive 2004/108/EC. See Annex ZZ.

(standards.iteh.ai)

Annexes ZA and ZZ have been added by CENELEC.

[SIST EN 60730-2-15:2010](https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff6-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010)

<https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff6-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010>

Endorsement notice

The text of the International Standard IEC 60730-2-15:2008 was approved by CENELEC as a European Standard with the following common modifications.

COMMON MODIFICATIONS

1 Scope and normative references

1.1 **Add** the following sentence at the end of paragraph 1:

EN 60730-2-1 is not applicable to electrical water level sensing controls of the float or electrode-sensor type.

10 Terminals and terminations

10.1.4 **Delete** the addition.

12 Moisture and dust resistance

12.1.1.101 **Delete** the third paragraph relating to the USA.

Annex H Requirements for electronic controls

H.26.10 **Ring wave test**

Delete this subclause, H.26.10.5 and H.26.10.5.101.

ITeC STANDARD PREVIEW
(standards.iteh.ai)
SIST EN 60730-2-15:2010
<https://standards.iteh.ai/catalog/standards/sist/b2813d16-af6e-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010>

Add the following Annexes.

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 Where 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 60364-7-702	-	Electrical installations of buildings - Part 7: Requirements for special installations or locations - Section 702: Swimming pools and other basins	HD 384.7.702 S2	-
IEC 60669	Series	Switches for household and similar fixed- electrical installations	EN 60669	Series

iTech STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60730-2-15:2010](https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff6-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010)

<https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff6-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010>

Annex ZZ
(informative)

Coverage of Essential Requirements of EC Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Article 1 of Annex I of the EC Directive EMC (2004/108/EC).

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60730-2-15:2010](https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff6-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010)

<https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff6-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60730-2-15:2010](#)

<https://standards.iteh.ai/catalog/standards/sist/b2813d16-aff6-45bc-89ab-f5784b745704/sist-en-60730-2-15-2010>



IEC 60730-2-15

Edition 2.0 2008-01

INTERNATIONAL STANDARD

NORME INTERNATIONALE

**Automatic electrical controls for household and similar use –
Part 2-15: Particular requirements for automatic electrical air flow, water flow
and water level sensing controls**

**Dispositifs de commande électrique automatiques à usage domestique et
analogue –
Partie 2-15: Exigences particulières pour les dispositifs de commande
électrique automatiques détecteurs de débit d'air, de débit d'eau et de niveau
d'eau**

INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

COMMISSION
ELECTROTECHNIQUE
INTERNATIONALE

PRICE CODE
CODE PRIX

U

CONTENTS

FOREWORD.....	3
1 Scope and normative references.....	5
2 Definitions.....	6
3 General requirements.....	8
4 General notes on tests.....	8
5 Rating.....	9
6 Classification.....	9
7 Information.....	10
8 Protection against electric shock.....	11
9 Provision for protective earthing.....	11
10 Terminals and terminations.....	11
11 Constructional requirements.....	11
12 Moisture and dust resistance.....	13
13 Electric strength and insulation resistance.....	14
14 Heating.....	14
15 Manufacturing deviation and drift.....	14
16 Environmental stress.....	15
17 Endurance.....	15
18 Mechanical strength.....	17
19 Threaded parts and connections.....	18
20 Creepage distances, clearances and distances through solid insulation.....	18
21 Fire hazard testing.....	18
22 Resistance to corrosion.....	18
23 Electromagnetic compatibility (EMC) requirements – emission.....	18
24 Components.....	18
25 Normal operation.....	18
26 Electromagnetic compatibility (EMC) requirements – immunity.....	19
27 Abnormal operation.....	19
28 Guidance on the use of electronic disconnection.....	19
Annex H (normative) Requirements for electronic controls.....	20
Annex AA (normative) Number of cycles for independently mounted controls for boiler applications.....	25
Annex BB (normative) Requirements for response delay.....	26
Annex CC (informative) Number of cycles for independently mounted air flow and water flow sensing controls.....	27

INTERNATIONAL ELECTROTECHNICAL COMMISSION

**AUTOMATIC ELECTRICAL CONTROLS
FOR HOUSEHOLD AND SIMILAR USE –**
**Part 2-15: Particular requirements for automatic electrical air flow, water
flow and water level sensing controls**

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.
- 2) The formal decisions or agreements of 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 IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with an IEC Publication.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 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 60730-2-15 has been prepared by IEC technical committee 72: Automatic controls for household use.

This second edition cancels and replaces the first edition published in 1994 and its Amendment 1 (1997), the first edition of IEC 60730-2-16 published in 1995 and its Amendments 1 (1997) and 2 (2001) and the first edition of IEC 60730-2-18 published in 1997. This second edition constitutes a technical revision.

This second edition is a consolidation of three standards IEC 60725-2-15, IEC 60730-2-16 and IEC 60730-2-18. The title and scope were revised to reflect the additional topics covered by the standard.

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

FDIS	Report on voting
72/757A/FDIS	72/761/RVD

Full information on the voting for the approval of this part 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.

This Part 2-15 is intended to be used in conjunction with IEC 60730-1. It was established on the basis of the third edition of that standard (1999) and its Amendments 1 (2003) and 2 (2007). Consideration may be given to future editions of, or amendments to, IEC 60730-1.

This Part 2-15 supplements or modifies the corresponding clauses in IEC 60730-1 so as to convert that publication into the IEC standard: Particular requirements for automatic electrical air flow, water flow and water level sensing controls.

Where this Part 2-15 states "addition", "modification" or "replacement", the relevant requirement, test specification or explanatory matter in Part 1 should be adapted accordingly.

Where no change is necessary, this Part 2-15 indicates that the relevant clause or subclause applies.

iTeh STANDARD PREVIEW

In the development of a fully international standard, it has been necessary to take into consideration the differing requirements resulting from practical experience in various parts of the world and to recognize the variation in national electrical systems and wiring rules.

The "in some countries" notes regarding differing national practice are contained in the following subclauses:

- 10.1.4
- 12.1.1.101

In this publication:

- 1) The following print types are used:
 - Requirements proper: in roman type.
 - *Test specifications: in italic type.*
 - Explanatory matter: in smaller roman type.
- 2) Subclauses or figures which are additional to those in Part 1 are numbered starting from 101.

A list of all parts of the IEC 60730 series, under the general title: *Automatic electrical controls for household and similar use*, can be found on the IEC website.

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.