
Automatic electrical controls for household and similar use - Part 2: Particular requirements for automatic electrical water level sensing controls of the float or electrode-sensor typed used in boiler applications (IEC 730-2-15:1994)

Automatic electrical controls for household and similar use -- Part 2-15: Particular requirements for automatic electrical water level sensing controls of the float or electrode-sensor type used in boiler applications

iTeh STANDARD PREVIEW
(standards.iteh.ai)
Automatische elektrische Regel- und Steuergeräte für den Hausgebrauch und ähnliche Anwendungen -- Teil 2-15: Besondere Anforderungen an automatische elektrische wasserstandsabhängige Regel- und Steuergeräte in Schwimm- oder Elektrodenfühler-Ausführung für den Gebrauch in Wasserboilern [2-15:1997](https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997)

<https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997>

Dispositifs de commande électrique automatiques à usage domestique et analogue -- Partie 2-15: Règles particulières pour les dispositifs de commande électrique automatiques détecteurs du niveau d'eau du type à flotteur ou à électrode utilisés dans les réalisations de chaudières

Ta slovenski standard je istoveten z: EN 60730-2-15:1995

ICS:

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

SIST EN 60730-2-15:1997**en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60730-2-15:1997](#)

<https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60730-2-15

May 1995

ICS 97.120

Descriptors: Household electrical appliances, control devices, automatic control, detectors, level: quantity, water, boilers, safety requirements, protection against electric shocks, insulation resistance, temperature rise, mechanical strength

English version

**Automatic electrical controls for household and similar use
Part 2: Particular requirements for automatic electrical water
level sensing controls of the float or electrode-sensor type
used in boiler applications
(IEC 730-2-15:1994)**

Dispositifs de commande électrique
automatiques à usage domestique et
analogue

Partie 2: Règles particulières pour les
dispositifs de commande électrique
automatiques détecteurs du niveau
d'eau du type à flotteur ou à électrode
utilisés dans les réalisations de
chaudières
(CEI 730-2-15:1994)

Automatische elektrische Regel- und
Steuergeräte für den Hausgebrauch und
ähnliche Anwendungen

Teil 2: Besondere Anforderungen für
automatische elektrische
wasserstandsabhängige Regel- und
Steuergeräte in Schwimm- oder
Elektrodenfühler-Ausführung für den
Gebrauch in Wasserboilern

(IEC 730-2-15:1994)

SIST EN 60730-2-15:1997

<https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997>

This European Standard was approved by CENELEC on 1995-03-06. 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, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, 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

This European Standard consists of the text of IEC 730-2-15:1994, which has been prepared by the Technical Committee IEC TC 72, Automatic controls for household use.

The draft was submitted to the IEC-CENELEC parallel vote as document 72(CO)145 and was approved by CENELEC as EN 60730-2-15 on 1995-03-06.

The following dates were fixed:

- latest date of publication of an identical national standard (dop) 1996-03-01
- latest date of withdrawal of conflicting national standards (dow) 1996-03-01

For products which have complied with the relevant national standard before 1996-03-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-03-01.

This Part 2 is to be used in conjunction with EN 60730-1:1991, Automatic electrical controls for household and similar use - Part 1: General requirements, and its amendments A1:1991, A11:1991 and A12:1993. Consideration may be given to future editions of, or amendments to, EN 60730-1.

Where a particular subclause of Part 1 is not mentioned in this Part 2, that subclause applies as far as is reasonable. Where this part 2 states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

Subclauses which are in addition to those in IEC 730-1 are numbered 101, 102, etc.; additional annexes are labelled AA, BB, etc. CENELEC annexes are labelled ZA, ZB, etc.

There are no special national conditions (snc) causing a deviation from this European Standard other than those listed in annex ZA of EN 60730-1.

Where reference is made to other international or harmonized standards, the edition of that standard quoted in annex ZB (normative) is applicable.

Endorsement notice

The text of the International Standard IEC 730-2-15:1994 was approved by CENELEC as a European Standard without any modification.

Annex ZB (normative)**Other international publications quoted in this standard
the reference of the relevant European publications****Additions to annex ZB of EN 60730-1:1991****Add under IEC Publication:**

730-2-1 (mod)	1989	Automatic electrical controls for household and similar use - Part 2: Particular requirements for electrical controls for electrical household appliances	EN 60730-2-1 + A11 + A12 + A13	1991 1992 1993 1995
730-2-6 (mod)	1991	Part 2: Particular requirements for automatic electrical pressure sensing controls including mechanical requirements	EN 60730-2-6	1995

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

[SIST EN 60730-2-15:1997](https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997)

<https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60730-2-15:1997](#)

<https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997>

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
730-2-15

Première édition
First edition
1994-12

**Dispositifs de commande électrique
automatiques à usage domestique et analogue –**

Partie 2:

Règles particulières pour les dispositifs de
commande électrique automatiques détecteurs
du niveau d'eau du type à flotteur ou à
électrode utilisés dans les réalisations
de chaudières

<https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997>

**Automatic electrical controls for household
and similar use –**

Part 2:

Particular requirements for automatic electrical
water level sensing controls of the float or
electrode-sensor type used in
boiler applications

© CEI 1994 Droits de reproduction réservés — Copyright — all rights reserved

Aucune partie de cette publication ne peut être reproduite ni
utilisée sous quelque forme que ce soit et par aucun pro-
cédé, électronique ou mécanique, y compris la photocopie et
les microfilms, sans l'accord écrit de l'éditeur.

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.

Bureau Central de la Commission Electrotechnique Internationale 3, rue de Varembe Genève, Suisse



Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
PRICE CODE

R

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

CONTENTS

	Page
FOREWORD.....	5
Clause	
1 Scope and normative references.....	9
2 Definitions.....	11
3 General requirements.....	13
4 General notes on tests.....	13
5 Rating.....	15
6 Classification.....	15
7 Information.....	15
8 Protection against electric shock.....	17
9 Provision for protective earthing.....	17
10 Terminals and terminations.....	17
11 Constructional requirements.....	17
12 Moisture and dust resistance.....	19
13 Electric strength and insulation resistance.....	19
14 Heating.....	21
15 Manufacturing deviation and drift.....	21
16 Environmental stress.....	21
17 Endurance.....	21
18 Mechanical strength.....	23
19 Threaded parts and connections.....	25
20 Creepage distances, clearances and distances through insulation.....	25
21 Resistance to heat, fire and tracking.....	25
22 Resistance to corrosion.....	25
23 Radio interference suppression.....	27
24 Components.....	27
25 Normal operation.....	27
26 Operation with mains-borne perturbations, magnetic, and electromagnetic disturbances.....	27
27 Abnormal operation.....	27
28 Guidance on the use of electronic disconnection.....	27
Figures.....	27
Annexes.....	29

INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUTOMATIC ELECTRICAL CONTROLS
FOR HOUSEHOLD AND SIMILAR USE -

**Part 2: Particular requirements for automatic electrical
water level sensing controls of the float or
electrode-sensor type used in boiler applications**

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 cooperation 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, prepared by technical committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 3) They have the form of recommendations for international use published in the form of standards, 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.

This part of International Standard IEC 730 has been prepared by IEC technical committee 72: Automatic controls for household use.

It forms the first edition of IEC 730-2-15.

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

DIS	Report on voting
72(CO)145	72/294/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 part 2 is intended to be used in conjunction with IEC 730-1. It was established on the basis of the first edition (1986) of that publication, modified by Amendment No. 1 (1990), Amendment No. 2 (1991) and Amendment No. 3 (1991). Consideration may be given to future editions of, or amendments to, IEC 730-1.

This part 2 supplements or modifies the corresponding clauses in IEC 730-1 so as to convert that publication into the IEC standard: Particular requirements for automatic electrical water level sensing controls of the float or electrode-sensor type used in boiler applications.

Where this part 2 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, part 2 indicates that the relevant clause or subclause applies.

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: H:26.9; H:26.10.

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, notes, requirements or figures which are additional to those in part 1 are numbered starting from 101.

[SIST EN 60730-2-15:1997](https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997)

<https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997>

AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE -

Part 2: Particular requirements for automatic electrical water level sensing controls of the float or electrode-sensor type used in boiler applications

1 Scope and normative references

This clause of part 1 is replaced as follows:

1.1 This part of International Standard IEC 730 applies to automatic electrical water level sensing controls of the float and electrode-sensor type for use in, on or in association with, boilers with a maximum pressure rating of 2 000 kPa (20 bar), for household and similar use.

1.1.1 This part 2 applies to the inherent safety, to the operating values, operating sequences where such are associated with equipment protection, and to the testing of automatic electrical water level sensing controls used in, on or in association with, household and similar equipment.

ITeH STANDARD PREVIEW
(standards.iteh.ai)

This part 2 is also applicable to controls for appliances within the scope of IEC 335-1. IEC 730-2-1 does not apply to such controls.

[SIST EN 60730-2-15:1997](https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997)

[https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-](https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997)

[51962b6dbd07/sist-en-60730-2-15-1997](https://standards.iteh.ai/catalog/standards/sist/b9a78403-8861-48dd-a1bc-51962b6dbd07/sist-en-60730-2-15-1997)

Automatic electrical water level sensing controls for equipment not intended for normal household use, but which nevertheless may be used by the public, such as equipment intended to be used by laymen in shops, in light industry and on farms, are within the scope of this part 2.

This part 2 is also applicable to individual controls utilized as part of a control system or controls which are mechanically integral with multifunctional controls having non-electrical outputs.

This part 2 is not applicable to pressure-operated water level sensing controls, requirements for which are contained in IEC 730-2-6.

This part 2 does not apply to water level sensing controls designed exclusively for industrial applications.

Throughout this part 2, the term "water level sensing control" means "water level cut-out, water level limiter or boiler water feed control".

Throughout this part 2, the word "equipment" means "appliance and equipment".