
Automatic electrical controls for household and similar use - Part 2: Particular requirements for automatic electrical water level operating controls of the float type for household and similar applications (IEC 60730-2-16:1995, modified)

Automatic electrical controls for household and similar use -- Part 2-16: Particular requirements for automatic electrical water level controls of the float type for household and similar applications

Automatische elektrische Regel- und Steuergeräte für den Hausgebrauch und ähnliche Anwendungen -- Teil 2-16: Besondere Anforderungen an automatische elektrische Wasserstandsregler in Schwimмераusführung für den Hausgebrauch und ähnliche Anwendungen

[SIST EN 60730-2-16:1998](https://standards.iteh.ai/catalog/standards/sist/ea57904d-7243-4a6f-ae8b-930ccff8f203/sist-en-60730-2-16-1998)

<https://standards.iteh.ai/catalog/standards/sist/ea57904d-7243-4a6f-ae8b-930ccff8f203/sist-en-60730-2-16-1998>

Dispositifs de commande électrique automatiques à usage domestique et analogue -- Partie 2-16: Règles particulières pour les dispositifs de commande électrique automatiques détecteurs du niveau d'eau du type à flotteur pour applications domestiques et usages analogues

Ta slovenski standard je istoveten z: EN 60730-2-16:1997

ICS:

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

SIST EN 60730-2-16:1998**en**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60730-2-16:1998](#)

<https://standards.iteh.ai/catalog/standards/sist/ea57904d-7243-4a6f-ae8b-930ccff8f203/sist-en-60730-2-16-1998>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60730-2-16

December 1997

ICS 97.120

Descriptors: Electrical household appliance, automatic control, definition, requirement, test, level control

English version

**Automatic electrical controls for household and similar use
Part 2: Particular requirements for automatic electrical water level
operating controls of the float type for household and similar applications
(IEC 60730-2-16:1995, modified)**

Dispositifs de commande électrique
automatiques à usage domestique et
analogues

Partie 2: Règles particulières pour les
dispositifs de commande électrique
automatiques détecteurs du niveau
d'eau du type à flotteur pour
applications domestiques et usages
analogues
(CEI 60730-2-16:1995, modifiée)

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

Teil 2: Besondere Anforderungen an
Wasserstandsregler in
Schwimmerausführung für den
Hausgebrauch und ähnliche
Anwendungen
(IEC 60730-2-16:1995, modifiziert)

This European Standard was approved by CENELEC on 1997-10-01. 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, 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 the International Standard IEC 60730-2-16:1995, prepared by IEC TC 72, Automatic controls for household use, together with the common modifications prepared by the Technical Committee CENELEC TC 72, was submitted to the formal vote and was approved by CENELEC as EN 60730-2-16 on 1997-10-01.

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) 1999-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-06-01

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, A12:1993 and A14:1995. Consideration may be given to future editions of, or amendments to, EN 60730-1.

This part 2 supplements or modifies the corresponding clauses of EN 60730-1 so as to convert it into the European Standard "Safety requirements for automatic electrical water level operating controls of the float type for household and similar applications".

Where a particular clause or subclause of part 1 is not mentioned in this part 2, that clause or 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 and notes which are in addition to those in part 1 are numbered 101, etc.

Where reference is made to other international or harmonized standards, the edition of that standard quoted in annex ZB (normative) of EN 60730-1 is applicable.

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.

Endorsement notice

The text of the International Standard IEC 60730-2-16:1995 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS

Foreword **Delete.**

10 Terminals and terminations

10.1.4 **Delete** the addition.

10.1.16 **Delete.**

This subclause is 'void' in EN 60730-1:1995.

12 Moisture and dust resistance

12.1.1.101 **Delete** the explanation paragraph.

iTeh STANDARD PREVIEW
(standards.iteh.ai)

Annex H

H.26 Operation with mains borne perturbations, magnetic and electromagnetic disturbances

<https://standards.iteh.ai/catalog/standards/sist/ea57904d-7243-4a6f-ae8b-930ccff8f203/sist-en-60730-2-16-1998>

H.26.9 **Delete** the replacement.

Annex ZB

In annex ZB of EN 60730-1:1991, **replace** "prEN 61058-1" by "EN 61058-1:1992"

Addition:

IEC 60364-7-702 1983 (mod)	Electrical installations of buildings Part 7: Requirements for special installations or locations Section 702: Swimming pools	HD 384.7.702 S1	1991
-------------------------------	--	-----------------	------

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[SIST EN 60730-2-16:1998](#)

<https://standards.iteh.ai/catalog/standards/sist/ea57904d-7243-4a6f-ac8b-930ccff8f203/sist-en-60730-2-16-1998>

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
730-2-16

Première édition
First edition
1995-11

**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 pour applications domestiques et
usages analogues

SIST EN 60730-2-16:1998

<https://standards.iteh.ai/catalog/standards/sist/ea57904d-7243-4a6f-ac8b->

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

Part 2:

Particular requirements for automatic electrical water
level operating controls of the float type for household
and similar applications

© CEI 1995 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

N

● 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	13
6 Classification	13
7 Information	13
8 Protection against electric shock	15
9 Provision for protective earthing	15
10 Terminals and terminations	15
11 Constructional requirements	17
12 Moisture and dust resistance	19
13 Electric strength and insulation resistance	21
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	23
20 Creepage distances, clearances and distances through insulation	23
21 Resistance to heat, fire and tracking	23
22 Resistance to corrosion	23
23 Radio interference suppression	23
24 Components	23
25 Normal operation	25
26 Operation with mains borne perturbations, magnetic, and electromagnetic disturbances	25
27 Abnormal operation	25
28 Guidance on the use of electronic disconnection	25
Figures	25
Annexes	27

INTERNATIONAL ELECTROTECHNICAL COMMISSION

AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD
AND SIMILAR USEPart 2: Particular requirements for automatic electrical water level
operating controls of the float type for household
and similar 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.
- 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.

International Standard IEC 730-2-16 has been prepared by IEC technical committee 72: Automatic controls for household use.

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

FDIS	Report on voting
72/308/FDIS	72/340/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: Safety requirements for automatic electrical water level operating controls of the float type for household and similar application.

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:

- 10.1.4
- 10.1.16
- 12.1.1.101
- H.26.9

iTeh STANDARD PREVIEW
(standards.iteh.ai)

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 or items which are additional to those in part 1 are numbered starting from 101.

AUTOMATIC ELECTRICAL CONTROLS FOR HOUSEHOLD AND SIMILAR USE

Part 2: Particular requirements for automatic electrical water level operating controls of the float type for household and similar applications

1 Scope and normative references

This clause of part 1 is applicable except as follows:

1.1 Replacement

This part of IEC 730 applies to automatic electrical water level operating controls of the float type for use in, on or in association with equipment for general household and similar use.

Examples are water level controls for swimming pool pumps, water tank pumps, cooling towers, dishwashers and washing machines.

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 operating controls used in, on or in association with household and similar equipment.

SIST EN 60730-2-16:1998

This part 2 is also applicable to controls for appliances within the scope of IEC 335, IEC 378 and IEC 364-7-702.

Automatic electrical water level operating 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 for boiler applications, requirements for which are contained in IEC 730-2-15.

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

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