

Elektrilised automaatjuhtimisseadmed majapidamis- ja muuks taoliseks kasutuseks. Osa 2-15: Erinõuded automaatsetele elektrilistele õhuvoolu, veevoolu ja veetaseme andurjuhtimisseadistele

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

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

Käesolev Eesti standard EVS-EN 60730-2-15:2010 sisaldab Euroopa standardi EN 60730-2-15:2010 ingliskeelset teksti.

Standard on kinnitatud Eesti Standardikeskuse 30.04.2010 käskkirjaga ja jõustub sellekohase teate avaldamisel EVS Teatajas.

Euroopa standardimisorganisatsioonide poolt rahvuslikele liikmetele Euroopa standardi teksti kättesaadavaks tegemise kuupäev on 12.03.2010.

Standard on kättesaadav Eesti standardiorganisatsioonist.

This Estonian standard EVS-EN 60730-2-15:2010 consists of the English text of the European standard EN 60730-2-15:2010.

This standard is ratified with the order of Estonian Centre for Standardisation dated 30.04.2010 and is endorsed with the notification published in the official bulletin of the Estonian national standardisation organisation.

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The standard is available from Estonian standardisation organisation.

ICS 97.120

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

Standardite reprodutseerimis- ja levitamiseõigus kuulub Eesti Standardikeskusele

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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)

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.

Annexes ZA and ZZ have been added by CENELEC.

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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.

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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

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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.

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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

1 Scope and normative references

This clause of Part 1 is replaced as follows:

1.1 This part of IEC 60730 applies to automatic electrical air flow, water flow and water level sensing controls for use in, or in association with, boilers with a maximum pressure rating of 2 000 kPA (20 bar) and equipment for general household and similar use including controls for heating, air- conditioning and similar applications.

Examples are water flow and water level sensing controls of the float or electrode-sensor type used in boiler applications and air flow, water flow and water level sensing controls for swimming pool pumps, water tank pumps, cooling towers, dishwashers, washing machines, air conditioning chillers and ventilation applications.

1.1.1 This standard 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 air flow, water flow and water level sensing controls used in, or in association with, household and similar equipment.

This standard is also applicable to controls for appliances within the scope of IEC 60335-1 and IEC 60364-7-702.

Automatic electrical air flow, water flow and 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 standard.

This standard 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 standard is not applicable to pressure-operated air flow, water flow and water level sensing controls, requirements for which are contained in IEC 60730-2-6¹⁾.

This standard does not apply to air flow, water flow and water level sensing controls designed exclusively for industrial applications.

Throughout this standard, the word "equipment" means "appliance and equipment".

1.1.2 This standard applies to automatic electrical controls, mechanically or electrically operated, responsive to or controlling air flow, water flow and water level.

¹⁾ IEC 60730-2-6, *Automatic electrical controls for household and similar use – Part 2-6: Particular requirements for automatic electrical pressure sensing controls including mechanical requirements*

1.1.3 This standard contains requirements for electrical features of air flow, water flow and water level sensing controls and requirements for mechanical features that may affect their intended operation and electrical safety.

1.1.4 This standard applies to manual controls when such are electrically and/or mechanically integral with air flow, water flow and water level sensing controls.

Requirements for manual switches not forming part of an automatic control are contained in IEC 60669 and IEC 61058-1.

1.1.5 In general, these air flow, water flow and water level sensing controls are integrated or incorporated with the equipment or are intended to be integrated or incorporated in or on the equipment. This standard also covers controls when they are independently mounted or of in-line cord construction.

1.2 This standard applies to controls with a rated voltage not exceeding 690 V and a rated current not exceeding 63 A.

1.3 This standard takes into account the response value of an automatic action of a control where such a response value is dependent upon the method of mounting the control. Where a response value is of significant purpose for the protection of the user, or surroundings, the value defined in the appropriate household equipment standard or as determined by the manufacturer shall apply.

1.4 This standard applies also to controls incorporating electronic devices, requirements for which are contained in Annex H.

This standard applies also to controls using NTC and PTC thermistors, requirements for which are contained in Annex J.

1.5 Normative references

This subclause of Part 1 is applicable except as follows:

Addition:

IEC 60364-7-702, *Electrical installation of buildings – Part 7: Requirements for special installations or locations – Section 702: Swimming pools and other basins*

IEC 60669 (all parts), *Switches for household and similar fixed-electrical installations*

2 Definitions

This clause of Part 1 is applicable except as follows:

2.2 Definitions of types of control according to purpose

2.2.19

Addition:

See 2.2.103, 2.2.104, 2.2.106 and 2.2.107.

2.2.20

Addition: