SLOVENSKI STANDARD
SIST EN 60730-2-15:2019

01-junij-2019

Nadomešča:
SIST EN 60730-2-15:2010

Avtomatske električne krmilne naprave - 2-15. del: Posebne zahteve za avtomatska električna tipala, ki zaznavajo pretok zraka, pretok vode in vodni nivo

Automatic electrical controls - Part 2-15: Particular requirements for automatic electrical air flow, water flow and water level sensing controls

Ta slovenski standard je istoveten z: **EN IEC 60730-2-15:2019**

ICS:

97.120	Avtomatske krmilne naprave za dom	Automatic controls for household use

SIST EN 60730-2-15:2019 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN IEC 60730-2-15

April 2019

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Supersedes EN 60730-2-15:2010

English Version

Automatic electrical controls - Part 2-15: Particular requirements for automatic electrical air flow, water flow and water level sensing controls (IEC 60730-2-15:2017)

Dispositifs de commande électrique automatiques - 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 (IEC 60730-2-15:2017)

Automatische elektrische Regel- und Steuergeräte - Teil 2-15: Besondere Anforderungen an automatische elektrische luftstrom-, wasserstrom- und wasserstandsabhängige Regel- und Steuergeräte (IEC 60730-2-15:2017)

This European Standard was approved by CENELEC on 2018-10-23. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Ref. No. EN IEC 60730-2-15:2019 E

European foreword

The text of document (72/1080/FDIS), future edition 3 of IEC 60730-2-15, prepared by IEC/TC 72 "Automatic electrical controls" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN IEC 60730-2-15:2019.

The following dates are fixed:

• latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2019-10-05
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2022-04-05

This document supersedes EN 60730-2-15:2010.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

Endorsement notice

The text of the International Standard IEC 60730-2-15:2017 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60364-7-702 NOTE Harmonized as HD 60364-7-702
IEC 60669 series NOTE Harmonized as EN 60669 series
IEC 60730-2-6 NOTE Harmonized as EN 60730-2-6

IEC 60730-2-15

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INTERNATIONAL STANDARD

NORME INTERNATIONALE

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

Dispositifs de commande électrique automatiques –
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

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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AUTOMATIC ELECTRICAL CONTROLS –

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.
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International Standard IEC 60730-2-15 has been prepared by IEC committee 72: Automatic electrical controls.

This third edition cancels and replaces the second edition published in 2008. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition:

a) changes to align with the fifth edition of 60730-1, including the revised title.

The text of this International Standard is based on the following documents:

FDIS	Report on voting
72/1080/FDIS	72/1101/RVD

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

This document 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 fifth edition of that standard (2013). 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 document 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 document indicates that the relevant clause or subclause of Part 1 applies.

In the development of a fully international standard to cover automatic controls for household and similar use, 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 practices are contained in the following subclauses:

- 10.1.4,
- 12.1.101.

In this publication:

1) The following print types are used:
   – Requirements proper: in roman type;
   – *Test specifications: in italic type*;
   – Notes: in small roman type;
   – Words defined in Clause 2: **bold**.
2) Subclauses, notes, tables and figures which are additional to those in part 1 are numbered starting from 101, additional annexes are lettered AA, BB, etc.

A list of all parts in the IEC 60730 series, published under the general title *Automatic electrical controls*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific document. At this date, the document will be

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

AUTOMATIC ELECTRICAL CONTROLS –

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 applicable except as follows:

1.1 Scope

Replacement:

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.

NOTE 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.

This document also applies to automatic electrical air flow, water flow and water level sensing controls for equipment that may be used by the public, such as equipment intended to be used in shops, offices, hospitals, farms and commercial and industrial applications.

1.1.1

Replacement:

This document 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, equipment.

This document is also applicable to controls for appliances within the scope of IEC 60335-1.

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 document.

This document 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 document is not applicable to pressure sensing controls, requirements for which are contained in IEC 60730-2-6[1].

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[1] IEC 60730-2-6, *Automatic electrical controls – Part 2-6: Particular requirements for automatic electrical pressure sensing controls including mechanical requirements*.

This document does not apply to air flow, water flow and water level sensing controls designed exclusively for industrial applications unless explicitly mentioned in the relevant equipment standard.

NOTE Throughout this document, the word "equipment" means "appliance and equipment".

1.1.2 *Addition:*

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

1.1.3 Not applicable.

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

1.1.5 *Replacement:*

This document applies to a.c. or d.c. automatic electrical air flow, water flow and water level sensing controls with a rated voltage not exceeding 690 V a.c. or 600 V d.c.

1.1.6 *Replacement:*

This document 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.

1.1.7 *Replacement:*

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

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

2 Terms and definitions

This clause of Part 1 is applicable except as follows:

2.2 Definitions of types of control according to purpose

Additional definitions:

2.2.101
boiler water level cut-out
water level **sensing control** of the float or electrode-sensor type for boiler applications intended to respond to a low water level during abnormal operating conditions and which has no provision for **setting by the user**

Note 1 to entry: A water level cut-out may be of the automatic or of the manual reset type. A boiler water level cutout is a type of **water level protective control** (see 2.2.105).